Report on the Construction and Testing of Class V Exploratory Well EW-1
at the Florida Power & Light Company Turkey Point Units 6 & 7

Prepared for the Florida Power & Light Company

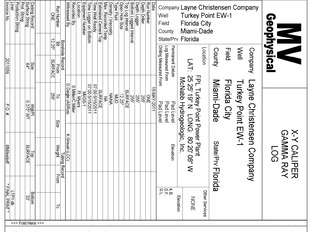
McNabb Hydrogeologic Consulting, Inc.

Volume 2

September 2012

ASR US, LLC

Appendix L
Geophysical Logs



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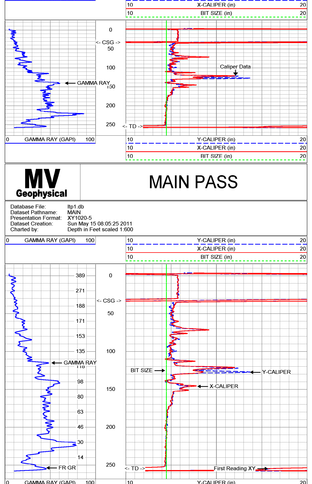
Comments

MAXIMUM Caliper Arm Extensions: 33"

MV Geophysical

MAIN PASS

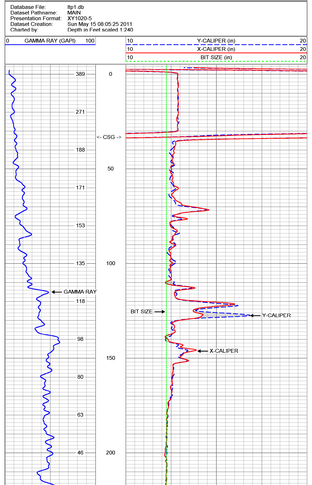
Database File: ftp1.db
Dataset Pathname: MAIN
Presentation Format: XY1020-1
Dataset Creation: Sun May 15 08:05:25 2011
Charted by: Depth in Feet scaled 1:200



MV Geophysical

MAIN PASS

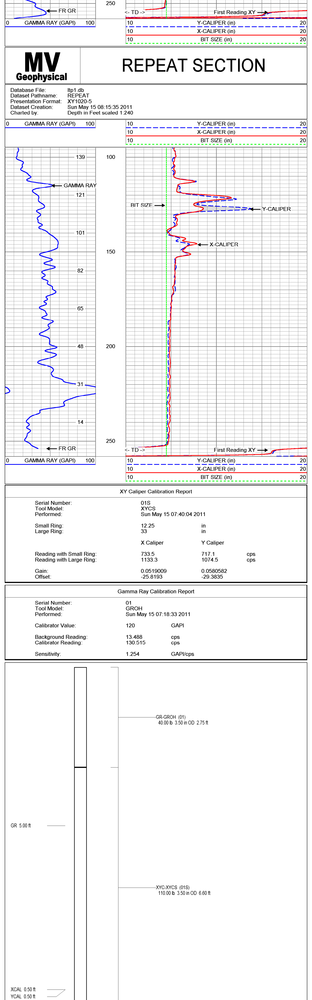
Database File: ftp1.db
Dataset Pathname: MAIN
Presentation Format: XY1600-5
Dataset Creation: Sun May 15 08:05:25 2011
Charted by: Depth in Feet scaled 1:600



MV Geophysical

MAIN PASS

Database File: ftp1.db
Dataset Pathname: MAIN
Presentation Format: XY1020-5
Dataset Creation: Sun May 15 08:05:25 2011
Charted by: Depth in Feet scaled 1:240



MV Geophysical

REPEAT SECTION

Database File: ftp1.db
Dataset Pathname: REPEAT
Presentation Format: XY1020-5
Dataset Creation: Sun May 15 08:15:35 2011
Charted by: Depth in Feet scaled 1:240

XY Caliper Calibration Report

Serial Number:	01G	
Tool Model:	XYCG	
Performed:	Sun May 15 07:40:04 2011	
Small Ring:	12.25	in
Large Ring:	33	in
	X Caliper	Y Caliper
Reading with Small Ring:	733.5	717.1 cps
Reading with Large Ring:	1133.3	1074.5 cps
Gain:	0.0519009	0.0560582
Offset:	-25.6193	-29.3835

Gamma Ray Calibration Report

Serial Number:	01	
Tool Model:	GROM	
Performed:	Sun May 15 07:18:33 2011	
Calibrator Value:	120	GAPI
Background Reading:	13.468	cps
Calibrator Reading:	130.515	cps
Sensitivity:	1.254	GAPIcps

Dataset	run1/axial
Total Length	9.35 ft
Total Weight	150.00 lb
O.D	3.59 in

FPL-005C-474

MV Geophysical

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida
Location: LAT: 25 25' 19" N, LONG: 80 26' 08" W
FPL Turkey Point Power Plant
McNabb Hydrogeologic, Inc.
Elevation: Pad Level, Pad Level, MSL
Other Services: NONE

X-Y CALIPER
GAMMA RAY
LOG

Run Number: One
Depth Logged: Upper
Depth Logged: Lower
Type Log Interval: Primary
Type Log Interval: Primary
Open Hole / Cased Hole: Open Hole
Max Recorded Temp: 0 deg F
Max Recorded Temp: 0 deg F
Time Since Circulation: 0 hrs
Time Since Circulation: 0 hrs
Max Rec Temp: 0 deg F
Equipment Number: MAG
Location: 2CY
Recorded By: 2CY
Witnessed By: 2CY

Run Number: One
Depth Logged: Upper
Depth Logged: Lower
Type Log Interval: Primary
Type Log Interval: Primary
Open Hole / Cased Hole: Open Hole
Max Recorded Temp: 0 deg F
Max Recorded Temp: 0 deg F
Time Since Circulation: 0 hrs
Time Since Circulation: 0 hrs
Max Rec Temp: 0 deg F
Equipment Number: MAG
Location: 2CY
Recorded By: 2CY
Witnessed By: 2CY

Run Number: One
Depth Logged: Upper
Depth Logged: Lower
Type Log Interval: Primary
Type Log Interval: Primary
Open Hole / Cased Hole: Open Hole
Max Recorded Temp: 0 deg F
Max Recorded Temp: 0 deg F
Time Since Circulation: 0 hrs
Time Since Circulation: 0 hrs
Max Rec Temp: 0 deg F
Equipment Number: MAG
Location: 2CY
Recorded By: 2CY
Witnessed By: 2CY

Permanent Datum: Ground Level
Elevation: 0 ft
Log Measured From: Pad Level
Drilling Measured From: Pad Level
API Serial No.: 0
Source: Rm Rmf Rm@BHT
Rm @ Meas Temp: 0.27 @ 70
Rmf @ Meas Temp: 0.24 @ 70
Rm @ BHT: 0.27 @ 70
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

Permanent Datum: Ground Level
Elevation: 0 ft
Log Measured From: Pad Level
Drilling Measured From: Pad Level
API Serial No.: 0
Source: Rm Rmf Rm@BHT
Rm @ Meas Temp: 0.27 @ 70
Rmf @ Meas Temp: 0.24 @ 70
Rm @ BHT: 0.27 @ 70
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

Permanent Datum: Ground Level
Elevation: 0 ft
Log Measured From: Pad Level
Drilling Measured From: Pad Level
API Serial No.: 0
Source: Rm Rmf Rm@BHT
Rm @ Meas Temp: 0.27 @ 70
Rmf @ Meas Temp: 0.24 @ 70
Rm @ BHT: 0.27 @ 70
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

Elevation: K.B. 0, D.F. 0, G.L. 0

Run: 2011066
Depth-Driller: 0
Depth-Logger: 0
Bottom Logged Interval: 0
Top Logged Interval: 0
Casing-Driller: 0 @ 0
Casing-Logger: 0 @ 0
Bit Size: 0
Type Fluid in Hole: 0
Density: 0
Viscosity: 0
pH: 0
Fluid Loss: 0
Source of Sample: 0
Rm @ Meas Temp: 0 @ 0
Rmf @ Meas Temp: 0 @ 0
Rm @ BHT: 0 @ 0
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

Run: 2011066
Depth-Driller: 0
Depth-Logger: 0
Bottom Logged Interval: 0
Top Logged Interval: 0
Casing-Driller: 0 @ 0
Casing-Logger: 0 @ 0
Bit Size: 0
Type Fluid in Hole: 0
Density: 0
Viscosity: 0
pH: 0
Fluid Loss: 0
Source of Sample: 0
Rm @ Meas Temp: 0 @ 0
Rmf @ Meas Temp: 0 @ 0
Rm @ BHT: 0 @ 0
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

Run: 2011066
Depth-Driller: 0
Depth-Logger: 0
Bottom Logged Interval: 0
Top Logged Interval: 0
Casing-Driller: 0 @ 0
Casing-Logger: 0 @ 0
Bit Size: 0
Type Fluid in Hole: 0
Density: 0
Viscosity: 0
pH: 0
Fluid Loss: 0
Source of Sample: 0
Rm @ Meas Temp: 0 @ 0
Rmf @ Meas Temp: 0 @ 0
Rm @ BHT: 0 @ 0
Time Circulation Stopped: 0
Time Logger on Bottom: 0
Maximum Recorded Temperature: 0
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

P.S. #: 0
Elevation: K.B. 0, D.F. 0, G.L. 0
Permanent Datum: Ground Level
Log Measured From: Pad Level
Drilling Measured From: Pad Level

Rig: 0
Weight: 0
Rig Number: 0
Type Log: 0
Casing Collar Location: 0

LITH .db
"LITHO_DB.DAT"

<<< Fold Here >>>

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Comments

MAXIMUM Caliper Arm Extensions: 72"

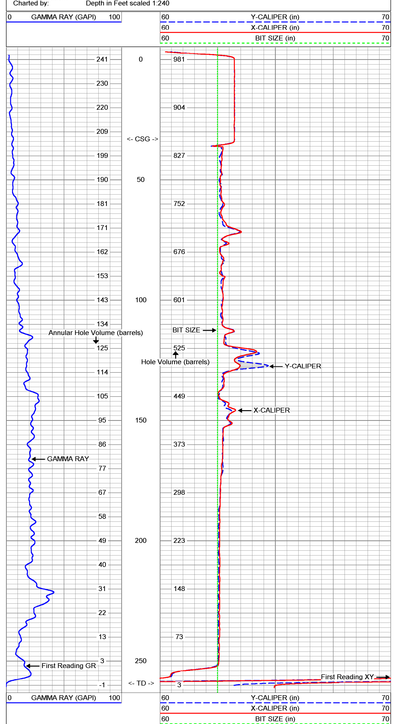
FUTURE CASING SIZE: 54"

BOREHOLE VOLUMES IN BARRELS

MV Geophysical

MAIN PASS

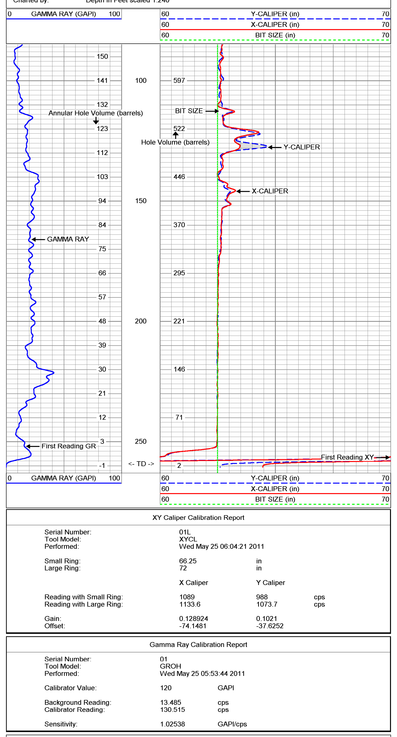
Database File: ltp1.db
Dataset Pathname: run2/main
Presentation Format: XY6070B5
Dataset Creation: Wed May 25 07:39:05 2011
Charted by: Depth in Feet scaled 1:240



MV Geophysical

REPEAT SECTION

Database File: ltp1.db
Dataset Pathname: run2/repeat
Presentation Format: XY6070B5
Dataset Creation: Wed May 25 07:44:37 2011
Charted by: Depth in Feet scaled 1:240

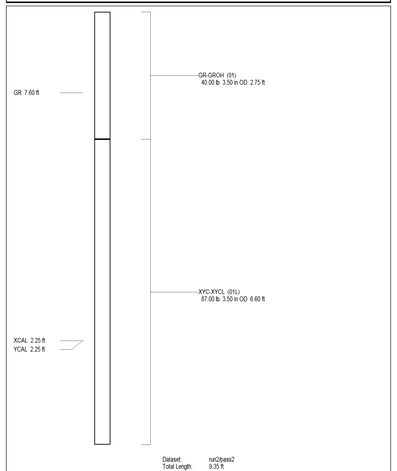


XY Caliper Calibration Report

Serial Number:	01L	
Tool Model:	XYCL	
Performed:	Wed May 25 06:04:21 2011	
Small Ring:	66.25	in
Large Ring:	72	in
	X Caliper	Y Caliper
Reading with Small Ring:	1089	988 cps
Reading with Large Ring:	1133.6	1073.7 cps
Gain:	0.128924	0.1021
Offset:	-74.1481	-37.6252

Gamma Ray Calibration Report

Serial Number:	01	
Tool Model:	GROH	
Performed:	Wed May 25 05:53:44 2011	
Calibrator Value:	120	GAPI
Background Reading:	13.485	cps
Calibrator Reading:	130.515	cps
Sensitivity:	1.02538	GAPI/cps



Dataset: run2/pass2
Total Length: 9.35 ft
Total Weight: 127.00 lb
O.D. 3.50 in

Company: Lone Cholonaum Company
Well: Lone Cholonaum Co. 1-27
Field: Hog Creek
County: Marsh Devils
State: Arizona

Other Services: Cement Bond Log
Permanent Datum: Ground Level
Elev.: K.B. 1,234 ft
D.F. 1,233 ft
G.L. 1,232 ft

Date: 27-Jan-2011
Run No.: ONE
Depth Driller: 1,200 ft
Depth Logger: 1,198 ft
Bottom Logged Interval: 1,196 ft
Top Logged Interval: 1,000 ft
Casing Driller: 1,200 ft @ Surface
Casing Logger: 1,198 ft @ Surface
Bit Size: 8.5 in
Type Fluid in Hole: Water
Density / Viscosity: 8.4 lb/gal / 28 s/qt
pH / Fluid Loss: 7.0 / 0 cc
Source of Sample: Flowline
Rm @ Meas. Temp.: 0.18 @ 68 °F
Rmf @ Meas. Temp.: 0.14 @ 68 °F
Rmc @ Meas. Temp.: 0.24 @ 68 °F
Source of Rmf / Rmc: Measured / Measured
Rm @ BHT: 0.09 @ 120 °F
Time Since Circulation: 2 hrs
Max. Rec. Temp.: 120 °F
Equipment / Location: 1234 / Marsh Devils
Recorded By: Chuck V. Fuel-Leigh
Witnessed By: Mr. Bob Smith

K.B. 1,234 ft Above Perm. Datum
D.F. 1,233 ft
G.L. 1,232 ft

Comments

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MAXIMUM Caliper Arm Extensions: 15"

BOREHOLE VOLUMES IN CUBIC FEET

Drill Pipe and Hw: 2BF

MAIN PASS

Depth Reference: Mn Dfl
Elevation Reference: 1,234 ft
Logged Interval: 1,196 ft to 1,000 ft
Drilling Measured From: Ground Level (GL)
Casing Fit: Depth in Fluid Loaded 1,198

Log Scale: 1:24 (PRINT) 1:48

Log Header Data: 1,234 (PRINT) 1,234 (DLIS) MAY 1925 (DD)

Curves: CAMBRIAN RAY, Hole Diameter (IDS), Hole Diameter (IDS), Hole Diameter (IDS),

Company: Layne Christensen Company
Client: Florida City
Project: Florida City 1
County: Miami-Dade
State/Prov: Florida

MV Geophysical

Layne Christensen Company

Florida City

Florida City 1

Miami-Dade

Florida

Lat: 25.45.42.3011
Long: 80.28.20.0011
Elevation: 7.0000
Datum: NAD83
Zone: Florida East 0901
Units: Feet

Log Date: 2011-11-10
Run No: 1
Depth Driller: 1100.00
Depth Logger: 1100.00
Bottom Log Interval: 1100.00
Top Log Interval: 0.00
Casing Fluid Type: Water
Casing Fluid Density: 8.34 lb/gal
Casing Fluid Level: Surface
Bit Size: 24.00 in
Type Fluid in Hole: Water
Density: 8.34 lb/gal
Viscosity: 28.00 s/qt
Fluid Loss: 0.00 cc
Source of Sample: Pit
Rm @ Meas Temp: 0.000 @ 0.0 °F
Rmf @ Meas Temp: 0.000 @ 0.0 °F
Rmc @ Meas Temp: 0.000 @ 0.0 °F
Source of Rmf and Rmc: Measured
Rm @ BHT: 0.000 @ 0.0 °F
Max Recorded Temp: 0.0 °F
Equipment Number: 1
Location: Florida City
Recorded By: Richard Cox
Witnessed By: Mr. Mark Thomas

CASING RECORD
1 | 20.000 | 0.000 | 40.00

Run 1 | 2011-11-10 | 0.00 | 1100.00 | 1100.00 | 0.00 | 1100.00 | 1100.00

Tool String: 1 | 1.000 | 1.000 | 1.000

Client: Lake Cholderwell Company
Project: Lake Cholderwell Dam
Survey Co.: MV Geophysical
Locale: North Dock
Operator: Jim Bowers

Survey Type: Bathymetric Survey
Survey Purpose: Annual Inspection
Vessel: Survey Vessel
Transducer: Single Beam
Frequency: 200 kHz
Positioning: Trimble DGPS
Sound Velocity: 1500 m/s
Datum: NAD 83
Projection: Utah State Plane Zone 3
Units: US Survey Feet

X 2,742,276.835
Y 1,000,000.000

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Comments:

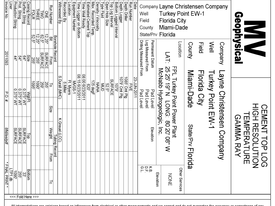
MAXIMUM Caliper from Extensions: 72"

BOREHOLE VOLUMES IN BARRELS

MAIN PASS

Client: Lake Cholderwell Company
Project: Lake Cholderwell Dam
Personnel Performing: Jim Bowers
Operator: Jim Bowers
Date and Time of Survey: Tue Jun 21 08:30:00 2011
Operator's Trial Loaded: 1,500
Operator's Light: 1,000

Annular Gap Volume (barrels)
Total Volume (barrels)
Water Surface
Caliper Data
Caliper Extensions
Zero Reading
Run-Out Reading
Run-Out Reading 2
Water Surface Elevation


MV Geophysical
Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida
Location
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida
Log Measured From RT @ 7.0 ft above Perm. Datum
Drilling Measured From RT
Permanent Datum Ground Level
Elev.: K.B. 7.0 ft
D.F. 6.0 ft
G.L. 0.0 ft
Date 11-May-11
Run No. ONE
Depth-Driller 620.0 ft
Depth-Logger 620.0 ft
Bottom Logged Interval 620.0 ft
Top Logged Interval SURFACE
Casing-Driller 16.000 in @ 40.0 ft
Casing-Logger 40.0 ft
Bit Size 12.250 in
Type Fluid in Hole WATER
Density / Viscosity 8.4 lb/gal
PH / Fluid Loss
Source of Sample
RM @ Measured Temp. 0.000 @ 0.0 °F
RMF @ Measured Temp. 0.000 @ 0.0 °F
RMC @ Measured Temp. 0.000 @ 0.0 °F
Source of RMF / RMC
RM @ BHT 0.000 @ 0.0 °F
Time Since Circulation
Time Logger on Bottom 13:00
Max. Recorded Temp. 0.0 °F
Equipment No. 1
Location
Recorded By JOHN
Witnessed By
Run No. ONE
Top Log Interval SURFACE
Bottom Log Interval 620.0 ft
Casing Driller 16.000 in @ 40.0 ft
Casing

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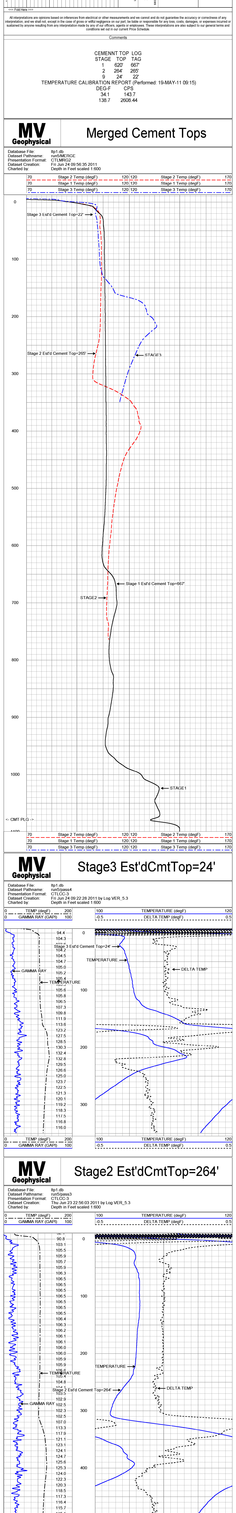
Comments

CEMENT TOP LOG
STAGE TOP TAG
3 622' 667'
2 1,000' 1,000'
1 24' 22'
TEMPERATURE CALIBRATION REPORT (Performed: 19-MAY-11 09:15)
DEG F CPS
34.1 143.7
138.7 2920.44

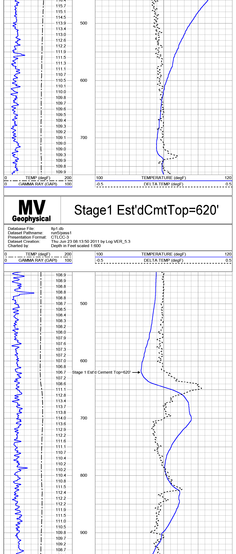
Merged Cement Tops

Database File: fld.db
Dataset Pathname: CEMSC
Presentation Format: CTUMSC
Dataset Creation: Fri Jun 24 09:56:35 2011
Charted by: Depth in Feet scaled 1:600



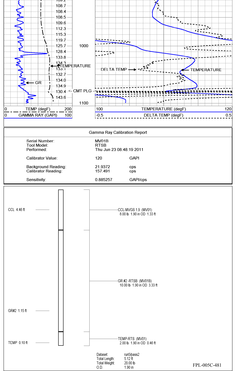
Stage3 Est'dCmtTop=24'

Database File: fld.db
Dataset Pathname: cmtStage3
Presentation Format: CTUCLS
Dataset Creation: Fri Jun 24 09:22:28 2011 by Log VER. 5.3
Charted by: Depth in Feet scaled 1:600



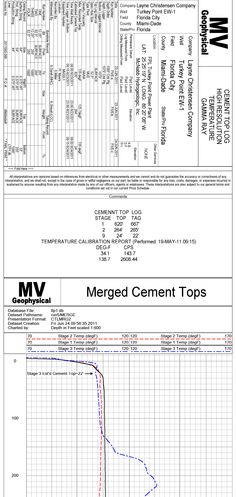
Stage2 Est'dCmtTop=264'

Database File: fld.db
Dataset Pathname: cmtStage2
Presentation Format: CTUCLS
Dataset Creation: Thu Jun 23 22:56:03 2011 by Log VER. 5.3
Charted by: Depth in Feet scaled 1:600



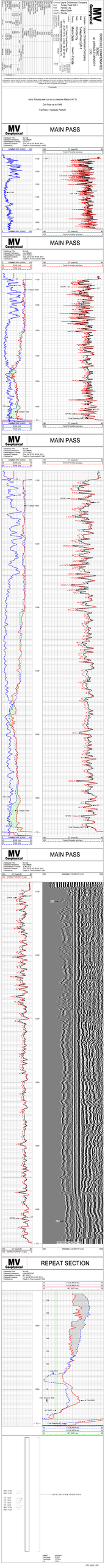
Stage1 Est'dCmtTop=620'

Database File: fld.db
Dataset Pathname: cmtStage1
Presentation Format: CTUCLS
Dataset Creation: Thu Jun 23 08:13:50 2011 by Log VER. 5.3
Charted by: Depth in Feet scaled 1:600



Gamma Ray Calibration Report

Sonde Number	MM165
Tool Model	15168
Performed	Thu Jun 23 08:46:19 2011
Calibrator Value:	120 GAPI
Background Reading:	21.9372 cps
Calibrator Reading:	157.491 cps
Sensitivity	0.885257 GAPI/cps


MV Geophysical
Company: Layne Christensen Company
Field: Tuttle Creek Lake
County: Riley County
State: Kansas
Drilling Measured From: Ground Level
Permanent Datum: Ground Level
Elevation: 1,078 ft
Log Measured From: Ground Level
Total Depth Driller: 1,500 ft
Total Depth Logger: 1,500 ft
Bottom Log Interval: 1,500 ft
Top Log Interval: Surface
Casing Driller: 8" @ 1,500 ft
Casing Logger: 8" @ 1,500 ft
Bit Size: 7 7/8"
Type Fluid in Hole: Water
Density / Viscosity: 8.33 lb/gal
PH / Fluid Loss: 7.0 / 0 cc
Source of Sample: Mud Pit
Rm @ Measured Temp: 0.00 @ 0 °F
Rmf @ Measured Temp: 0.00 @ 0 °F
Rmc @ Measured Temp: 0.00 @ 0 °F
Source of Rmf / Rmc: Measured / Measured
Rm @ BHT: 0.00 @ 0 °F
Time Since Circulation: 24 hours
Max. Rec. Temperature: 0 °F
Equipment / Location: 4 / Manhattan
Recorded By: Mark Cade
Witnessed By: Steve Pringle
RADIOACTIVE CONSTRUCTED RESISTIVITY GAMMA RAY
Run Number: 1
Depth Driller: 1,500 ft
Depth Logger: 1,500 ft
Bottom Logged Interval: 1,500 ft
Top Logged Interval: Surface
Type of Log: Gamma Ray Neutron
Scale Up / Down: 1,000 / 1,000
Max. Rec. Temperature: 0 °F
Equipment / Location: 4 / Manhattan
Recorded By: Mark Cade
Witnessed By: Steve Pringle

Company: Lynx Chickasaw Company
Field: Lynx Field (OA-1)
County: Marion County
State: Florida
Client: Lynx Chickasaw Company
Well: Lynx Field #1H
API Number: 12345678910000
Job Number: MV0000
Run Number: 1
Run Date: 11-Oct-2011
Service Order: 0000
Log Unit Number: 1
Log Unit Location: Ocala, FL
Engineer: Ryan Pollock
Witness: Mr. Jack Daniels

DUAL INDUCTION LOG

Comments

Rev=1.791 above @ 78.9 degF

Drill Pipe set to 100E

Full River / Hydraulic Packoff

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MV Geophysical

MAIN PASS

Database File: 1yr.db
Dataset Pathname: pass1/depth
Presentation Format: Lynx
Dataset Creation: Tue Jul 12 02:36:16 2011
Charted by: Depth in Feet scaled 1:240

GR (GAPI) 0 100
DP (psi) 0 1000
GR (GAPI) 0 100

HILO (Ohms-m) .2000
HILM (Ohms-m) .2000
HILS (Ohms-m) .2000

Final Reading HILO at 1500
Final Reading HILM at 1500
Final Reading HILS at 1500

1100
1200
1300
1400
1500
1600
1700
1800
1900

DP
GR
HILO
HILM
HILS
GR at TD
DP at TD
Final Reading HILO at 1500
Final Reading HILM at 1500
Final Reading HILS at 1500

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Location: 1FL Turkey Point Power Plant
Miami-Dade County, Florida
LAT/LONG Hydrological Consulting Services, Inc.

Elevation: 0 ft
Permanent Datum: Ground Level
Log Measured From: Ground Level
Drilling Measured From: Ground Level

Date: 19-JUN-11
Run Number: ONE
Depth Driller: 1240 ft
Depth Logger: 1240 ft
Bottom Logged Interval: 1240 ft
Top Logged Interval: 3000 ft
Casing Driller: 1240 ft @ 0 ft
Casing Logger: 1240 ft @ 0 ft
Bit Size: 8.5 in
Type Fluid in Hole: Water
Density / Viscosity: 1.0 g/cm3 / 1.0 cP
Max Recorded Temperature: 31.2 deg C
Resistivity: 0.0 ohm-m @ 0 deg C
Salinity: 0.0 ppm
Fluid Level: 0 ft
Max Rec Temperature: 31.2 deg C
Equipment Number: 1
Location: 1FL Turkey Point Power Plant
Recorded By: Miami-Dade County, Florida
Witnessed By: LAYNE CHRISTENSEN COMPANY

Run No. | Bottom (ft) | Top (ft) | Casing (in @ ft) | Bit Size (in) | Type Fluid | Density (g/cm3) | Viscosity (cP) | Resistivity (ohm-m @ deg C) | Salinity (ppm) | Max Temp (deg C)
ONE | 1240 | 3000 | 1240 @ 0 | 8.5 | Water | 1.0 | 1.0 | 0.0 @ 0 | 0.0 | 31.2

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Comments

DYNAMIC & STATIC down passes were performed.
Cw =5,900 uS/cm @ 7060 deg.C (from 1420). Cl~285 ppm
FLUID RESISTIVITY CALIBRATION REPORT (Performed: 19-JUN-11 10:45)

uS/cm	CPS
237.1	3060.32
2578.54	2945.87
4410.24	2873.25

TEMPERATURE CALIBRATION REPORT (Performed: 19-JUN-11 10:15)

DEG.F	CPS
32.0	3151.18
130.2	2450.14

Drill Pipe set to 1056'

Dynamic FCT Down

Dataset File: fct1.db
Dataset Folder: run1/FCT
Presentation Format: FCTTP1
Presentation Creation: 19-JUN-11 12:10:57 40.2011
Charted by: Depth in Feet scaled 1:240

Static FCT Down

Dataset File: fct1.db
Dataset Folder: run1/FCT
Presentation Format: FCTTP1
Presentation Creation: 19-JUN-11 10:43:55 2011
Charted by: Depth in Feet scaled 1:240

MV Geophysical

FLUID CONDUCTIVITY TEMPERATURE LOG

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade State/Prv Florida

Location
FPL Turkey Point Power Plant
LAT: 25 25' 19" N LONG: 80 20' 08" W
McNabb Hydrogeologic Consulting, Inc.

Other Services
XY/GR,FCT
DIL,BHC
FLO,TDS

Permanent Datum	Pad Level	Elevation	K.B.
Log Measured From	Pad Level		D.F.
Drilling Measured From	Pad Level		G.L.

Date	12-JUL-2011
Run Number	SIX-e
Depth Driller	1655'
Depth Logger	1654'
Bottom Logged Interval	1654'
Top Log Interval	1045'
Open Hole Size	12.25"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max. Recorded Temp.	see FCT log
Estimated Cement Top	SURFACE
Time Well Ready	18:15 7/12/2011
Time Logger on Bottom	19:30 7/12/2011
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller
Witnessed By	S.Durall (MHC)

Elevation

Borehole Record

Run Number	Bit	From	To
ONE	12.25"	SURFACE	255'
TWO	62.5"	SURFACE	259'
THREE	12.25"	255'	1090'
FOUR	52.5"	255'	1095'

Tubing Record

Size	Weight	From	To
			1655'

Casing Record

	Size	Wgt/Ft	Top	Bottom
Surface String	64"	0.375" WT	SURFACE	33'
Prot. String	54"	0.375" WT	SURFACE	255'
Production String	44"	0.375" WT	SURFACE	1090'
Liner				LTP1.db

Invoice No.	20111103	P.O. #:	8ftd/las/pdf
			* FINAL PRINT *

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Comments

DYNAMIC & STATIC down passes were performed.
Cw =19,660 uS/cm @ 81.1 degC (from 1600'); Q=300 gpm.
FLUID RESISTIVITY CALIBRATION REPORT (Performed: 19-JUN-11 10:45)

uS/cm	CPS
237.1	3060.32
2578.54	2945.87
4410.24	2673.25

TEMPERATURE CALIBRATION REPORT (Performed: 19-JUN-11 10:15)

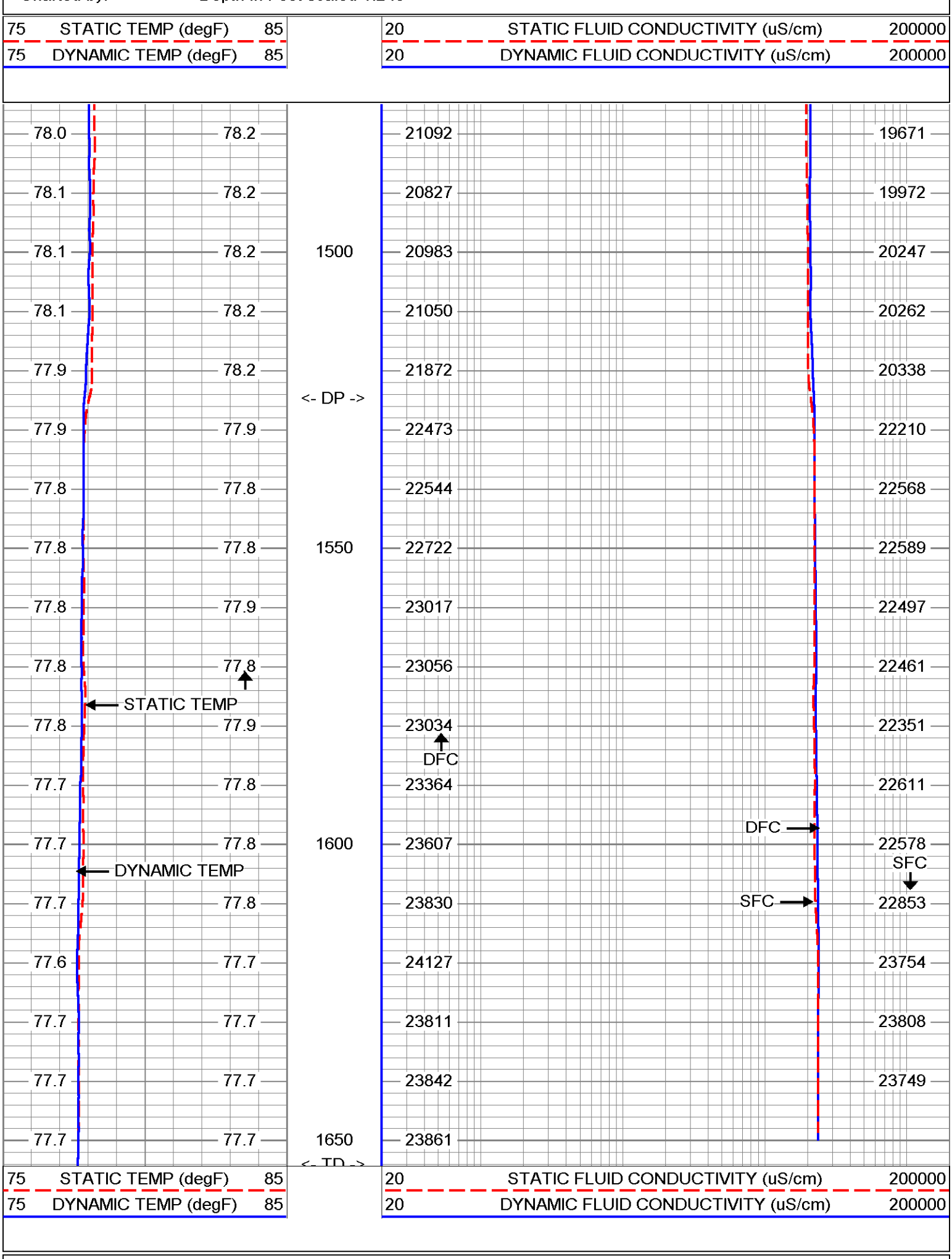
DEG-F	CPS
34.9	143.18
139.2	2600.14

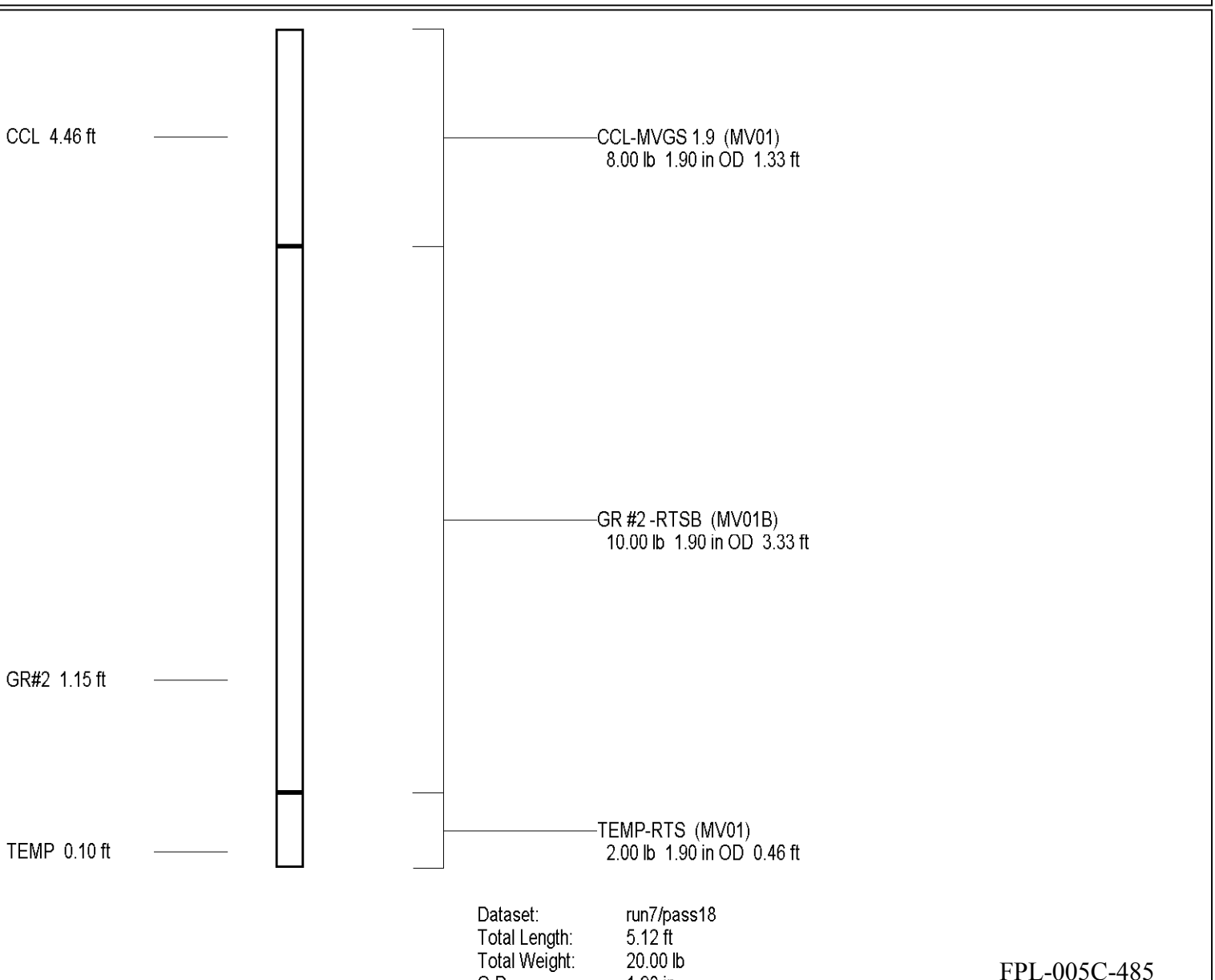
Drill Pipe set to 1098'

MV Geophysical

S/D FCT MERGE

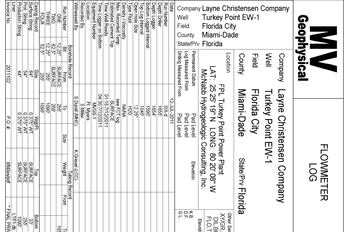
Database File: ltp1.db
Dataset Pathname: run7/FCT6E
Presentation Format: FCTTP2
Dataset Creation: Tue Jul 12 20:30:01 2011
Charted by: Depth in Feet scaled 1:240





Dataset: run7/pass18
Total Length: 5.12 ft
Total Weight: 20.00 lb
O.D. 1.90 in

FPL-005C-485



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Comments

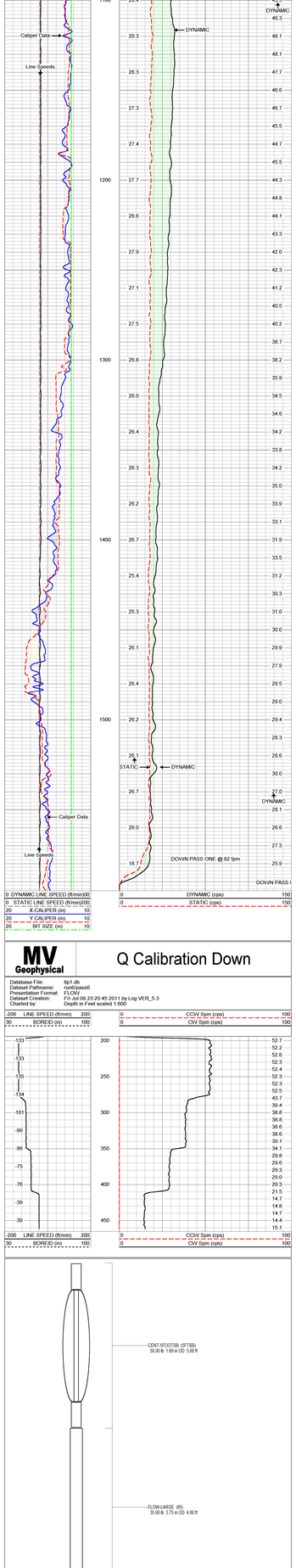
STATIC and DYNAMIC down passes were made at 82 fpm.

NO station performed.

Q =~285 gpm

Drill Pipe set to 1098'

Full Riser / Hydraulic Packoff



MV Geophysical

FLOWMETER LOG

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

Location
Permanent Datum: FPL Turkey Point Power Plant
Log Measured From: LAT: 25 25' 19" N LONG: 80 20' 08" W
Drilling Measured From: McNabb Hydrogeologic Consulting, Inc.

Elevation
Pad Level
Pad Level
Pad Level
12-JUL-2011

K.B.
D.F.
G.L.

Other Services
XYCERT
LAYFACT
FLOTDS

Date
Run Number
Depth Driller
Depth Logger
Bottom Logged Interval
Top Log Interval
Casing Driller
Casing Logger
Type Fluid
Density / Viscosity
PH / Fluid Loss
Source of Sample
Rm @ Meas Temp
Rmf @ Meas Temp
Rmc @ Meas Temp
Source Rmf / Rmc
Rm @ BHT
Time Circ. Started
Time Logger on Bottom
Maximum Recorded Temp
Equipment Number
Location
Recorded By
Witnessed By

Bit
From
To
Size
Weight
Grade
Type Joint

Borehole Record
Casing Record
Tubing Record

Run Number
Bit
From
To
Size
Weight
Grade
Top
Bottom

Invoice No.
Order No.
P.O. #

Data Source

| | | |

MV Geophysical

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

TDS COMPILATION LOG

Company	Layne Christensen Company
Well	Turkey Point EW-1
Field	Florida City
County	Miami-Dade
State/Prv	Florida
Location	LAT. 25° 25' 19" N LONG 80° 20' 08" W
Permanent Datum	FPL Turkey Point Power Plant
Log Measured From	McNabb hydrogeologic Consultnrg, Inc.
Drilling Measured From	Pad Level
Elevation	Pad Level
	KB
	DF
	GL
Other Services	XY/GR/FCT
	DLL/BHC
	PL/TDS
Date	15-JUL-2011
Run Number	ONE
Depth Driller	1664
Depth Logger	1664
Bottom Logged Interval	1664
Top Log Interval	1045'
Open Hole Size	12.25"
Type Fluid in Hole	LSND
Density / Viscosity	9.5 / 45
PH / Fluid Loss	10.5 / 4.8
Source of Sample	MUD
Rm @ Meas Temp	0.31@70F
Rmf @ Meas Temp	0.31@70F
Rmc @ Meas Temp	0.31@70F
Source Rmf / Rmc	MEAS / CALC
Rm @ BHT	0.31@70F
Time Circ Ended	01:15 7/12/2011
Time Logger On Bottom	03:30 7/12/2011
Maximum Recorded Temp	90
Equipment Number	MAS5-1
Location	01:30 7/12/2011 S
Recorded By	S.Dunn (MHC)
Witnessed By	K.Kinsel (CCG)

Bit	From	To
1	0'	1664'

Casing Record	Size	Wgt	From	To
Surface String	20"	94#	0'	1664'
Prod String	9 5/8"	53.5#	0'	1045'
Liner	7"	29#	1045'	1664'

Tubing Record	Size	Wgt	From	To
	4"	11.6#	0'	1045'

Bottom Hole Temperature	
85Estimated	

Invoice No: 20111102
P.O. #:
LITH @ *: FINAL PRINT

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Comments

The TDS compilation plot id derived from Dual Induction, Borehole Compensated Sonic, Fluid Conductivity and Caliper data.

Drill Pipe set to 1098'

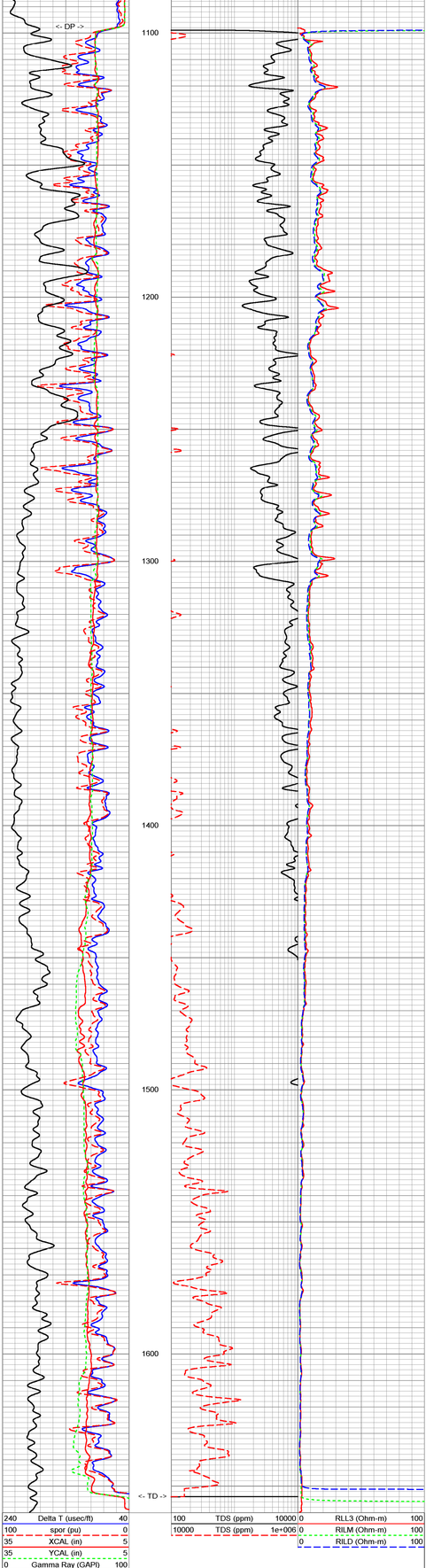
MV Geophysical

MAIN PASS

Database File: ltp1.db
Dataset Pathname: run7/MAIN
Presentation Format: TDSPC3
Dataset Creation: Tue Jul 12 02:36:16 2011
Charted by: Depth in Feet scaled 1:240

240	Delta T (usec/ft)	40
100	spor (pu)	0
35	XCAL (in)	5
35	YCAL (in)	5
0	Gamma Ray (GAPI)	100

100	TDS (ppm)	10000	0	RLL3 (Ohm-m) 100
10000	TDS (ppm)	1e+006	0	RILM (Ohm-m) 100
			0	RILD (Ohm-m) 100



240 Delta T (usec/ft) 40
100 spor (pu) 0
35 XCAL (in) 5
35 YCAL (in) 5
0 Gamma Ray (GAPI) 100

100 TDS (ppm) 10000 0 RLL3 (Ohm-m) 100
10000 TDS (ppm) 1e+006 0 RILM (Ohm-m) 100
0 RILD (Ohm-m) 100

Company: Layne Christensen Company
Field: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State: Florida

Company: Layne Christensen Company
Field: Florida City
County: Miami-Dade
State: Florida

X,Y CALIPER
GAMMA RAY
LOG

Coordinate System: NAD83 Datum: NAD83 Zone: Florida East 0901 Units: US Survey Feet
Measured From: Ground Level
Permanent Datum: Mean Sea Level
Elevation: 0.00 ft
Log Measured From: Ground Level
Drilling Measured From: Ground Level

	Run 1	Run 2	Run 3
Date	10-Mar-11	10-Mar-11	10-Mar-11
Time	12:32:36	14:44:54	16:48:15
Driller's Depth	1,500.00 ft	1,500.00 ft	1,500.00 ft
Logger's Depth	1,500.00 ft	1,500.00 ft	1,500.00 ft
Bottom Log Interval	1,500.00 ft	1,500.00 ft	1,500.00 ft
Top Log Interval	1,100.00 ft	1,100.00 ft	1,100.00 ft
Casing Driller	1,100.00 ft @ 0		
Casing Logger	1,100.00 ft		
Bit Size	12.25 in		
Type Fluid	Water		
Density / Viscosity	8.34 lb/gal / 0 cp		
Fluid Loss	0 cc		
Source of Sample	Flowline		
Rm @ Measured Temp	0 @ 0 °F		
Rmf @ Measured Temp	0 @ 0 °F		
Rmc @ Measured Temp	0 @ 0 °F		
Source of Rmf / Rmc	Measured / Measured		
Rm @ BHT	0 @ 0 °F		
Time Since Circulation	0 hr		
Max Recorded Temp	0 °F		
Equipment Number	0001		
Location			
Recorded By	Jeff Gilbert		
Witnessed By	Chad Hall		

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Comments:

MAXIMUM Caliper Arm Extensions: 33"

BOREHOLE VOLUMES IN CUBIC FEET

Drill Pipe set to 1098'

Full River / Hydraulic Packoff

MV Geophysical — MAIN PASS

Database File: 3yr1.db
Dataset Pathname: run3/GR4
Presentation Format: XY1GR3.3
Dataset Creation: Tue Jul 12 02:36:16 2011
Charted by: Depth in Feet scaled 1:600

GAMMA RAY (GAPI) 100 | 0 | X,Y CALIPER (in) 20 | 10 | X CALIPER (in) 20 | 10 | BIT SIZE (in) 20 | 10

Hole Volume (ft3) 1 | 0

Total Reading GR

MV Geophysical — REPEAT SECTION

Database File: 3yr1.db
Dataset Pathname: run3/GR4
Presentation Format: XY1GR3.3
Dataset Creation: Tue Jul 12 02:36:16 2011
Charted by: Depth in Feet scaled 1:240

GAMMA RAY (GAPI) 100 | 0 | X,Y CALIPER (in) 20 | 10 | X CALIPER (in) 20 | 10 | BIT SIZE (in) 20 | 10

Hole Volume (ft3) 1 | 0

Total Reading GR

BY Caliper Calibration Report

Serial Number	010
Last Modified	BY2.0
Calibration Date	2011-07-12 02:16:29.2011
Small Ring	12.25 in
Large Ring	33 in
	X Caliper / Y Caliper
Reading with Small Ring	729.2 / 734 cps
Reading with Large Ring	1113 / 1072 cps
Coin	0.454545455 / 0.909090918
Offset	331.7739 / 38.38467

Gamma Ray Calibration Report

Serial Number	001
Tool Model	GR4.0
Calibration Date	2009-08-06 18:44:54.2011
Calibrator Value	120 GAPI
Background Reading	14.214 cps
Calibrator Reading	1113.247 cps
Sensitivity	1.021990 GAPI/cps

GR (BEH) (ft)
40.00 ft 0.00 in 00 1/16 ft

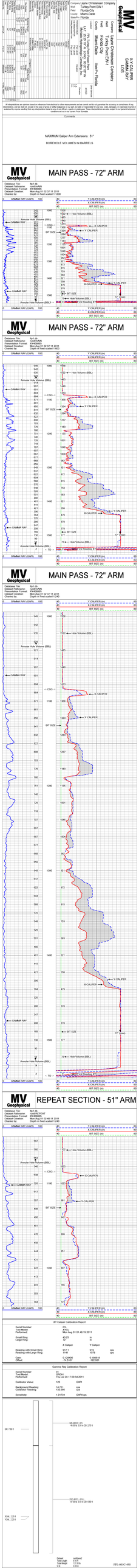
GR 5.00 ft

XY-CALIPER (ft3)
100.00 ft 0.00 in 00 0.00 ft

XCAL 5.00 ft
YCAL 5.00 ft

Dataset: run3/gr4
Tool Length: 4.0 ft
Tool Weight: 100 lb
OD: 3.50 in

EPS_-007C-.wmf



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CAPACITIES

MAXIMUM Caliper Arm Extensions 51"

BOREHOLE VOLUMES IN BARRELS

MAIN PASS - 72" ARM

Database File: flp1.db
Dataset Pathname: run3/ch06
Presentation Format: XY4060ft
Dataset Creation: Mon Aug 29 02:37:11 2011
Charted by: Depth in Feet scaled 1:330

GAMMA RAY (GAPI) 100 | Y CALIPER (in) | X CALIPER (in) | BIT SIZE (in)

Annular Hole Volume (BBL)

Hole Volume (BBL)

CSG

X CALIPER

Y CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

Y CALIPER

X CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

MAIN PASS - 72" ARM

Database File: flp1.db
Dataset Pathname: run3/ch06
Presentation Format: XY4060ft
Dataset Creation: Mon Aug 29 02:37:11 2011
Charted by: Depth in Feet scaled 1:330

GAMMA RAY (GAPI) 100 | Y CALIPER (in) | X CALIPER (in) | BIT SIZE (in)

Annular Hole Volume (BBL)

Hole Volume (BBL)

CSG

X CALIPER

Y CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

Y CALIPER

X CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

MAIN PASS - 72" ARM

Database File: flp1.db
Dataset Pathname: run3/ch06
Presentation Format: XY4060ft
Dataset Creation: Mon Aug 29 02:37:11 2011
Charted by: Depth in Feet scaled 1:240

GAMMA RAY (GAPI) 100 | Y CALIPER (in) | X CALIPER (in) | BIT SIZE (in)

Annular Hole Volume (BBL)

Hole Volume (BBL)

CSG

X CALIPER

Y CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

Y CALIPER

X CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

REPEAT SECTION - 51" ARM

Database File: flp1.db
Dataset Pathname: run3/ch07EXT
Presentation Format: XY4060ft
Dataset Creation: Mon Aug 29 02:46:11 2011
Charted by: Depth in Feet scaled 1:240

GAMMA RAY (GAPI) 100 | Y CALIPER (in) | X CALIPER (in) | BIT SIZE (in)

Annular Hole Volume (BBL)

Hole Volume (BBL)

CSG

X CALIPER

Y CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

Y CALIPER

X CALIPER

BIT SIZE

72" (max)

Annular Hole Volume (BBL)

XY Caliper Calibration Report

Serial Number:	070	
Tool Model:	XYCI	
Performed:	Wed Aug 03 01:46:10 2011	
Small Ring:	43.25	in
Large Ring:	72	in
	X Caliper	Y Caliper
Reading with Small Ring:	917.7	915 cps
Reading with Large Ring:	1147	1439 cps
Calm:	0.126405	0.180818
Offset:	-14.5167	-121.921

Gamma Ray Calibration Report

Serial Number:	28	
Tool Model:	GBCM	
Performed:	Thu Jul 28 17:00:34 2011	
Calibrator Value:	120	GAPI
Background Reading:	14.711	cps
Calibrated Reading:	132.956	cps
Sensitivity:	1.01134	GAPI/cps

FPL-065C-4/90

MV Geophysical

CEMENT TOP LOG
HIGH RESOLUTION TEMPERATURE GAMMA RAY

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade State/Prv Florida

Location
FPL Turkey Point Power Plant
LAT: 25 25' 19" N LONG: 80 20' 08" W
McNabb Hydrogeologic Consulting, Inc.

Other Services
NONE

		Elevation
Permanent Datum	Pad Level	K.B.
Log Measured From	Pad Level	D.F.
Drilling Measured From	Pad Level	G.L.

Date	5-AUG-2011
Run Number	EIGHT-A
Depth Driller	1531' CMT PLG
Depth Logger	1518'
Bottom Logged Interval	1518'
Top Log Interval	SURFACE
Open Hole Size	42.5"
Type Fluid	H2O
Density / Viscosity	NA/NA
Max. Recorded Temp.	see FCT log
Estimated Cement Top	SURFACE
Time Well Ready	23:00 8/5/2011
Time Logger on Bottom	23:30 8/5/2011
Equipment Number	MVGS-1
Location	Ft. Myers
Recorded By	S.Miller/C.Miller
Witnessed By	S.Durall (MHC)

Borehole Record

Run Number	Bit	From	To
ONE	12.25"	SURFACE	255'
TWO	62.5"	SURFACE	259'
THREE	12.25"	255'	1090'
FOUR	52.5"	255'	1095'

Tubing Record

Size	Weight	From	To
FIVE	12.25"	1090'	1655'
SIX	42.5"	1090'	1542'

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	64"	0.375" WT	SURFACE	33'
Prot. String	54"	0.375" WT	SURFACE	255'
Production String	44"	0.375" WT	SURFACE	1090'
Liner	34"	0.375" WT	SURFACE	1535'
Invoice No.	2011138	LTP1.db	8ftd/las/pdf	* FINAL PRINT *

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Comments

CEMENT TOP LOG

STAGE	TOP	TAG	STAGE	TOP	TAG
1	1458'	xxxx'	2	xxxx'	xxxx'
3	xxx'	xxx'	4	xxx'	xxx'
5	xxx'	xxx'	6	xxx'	xxx'

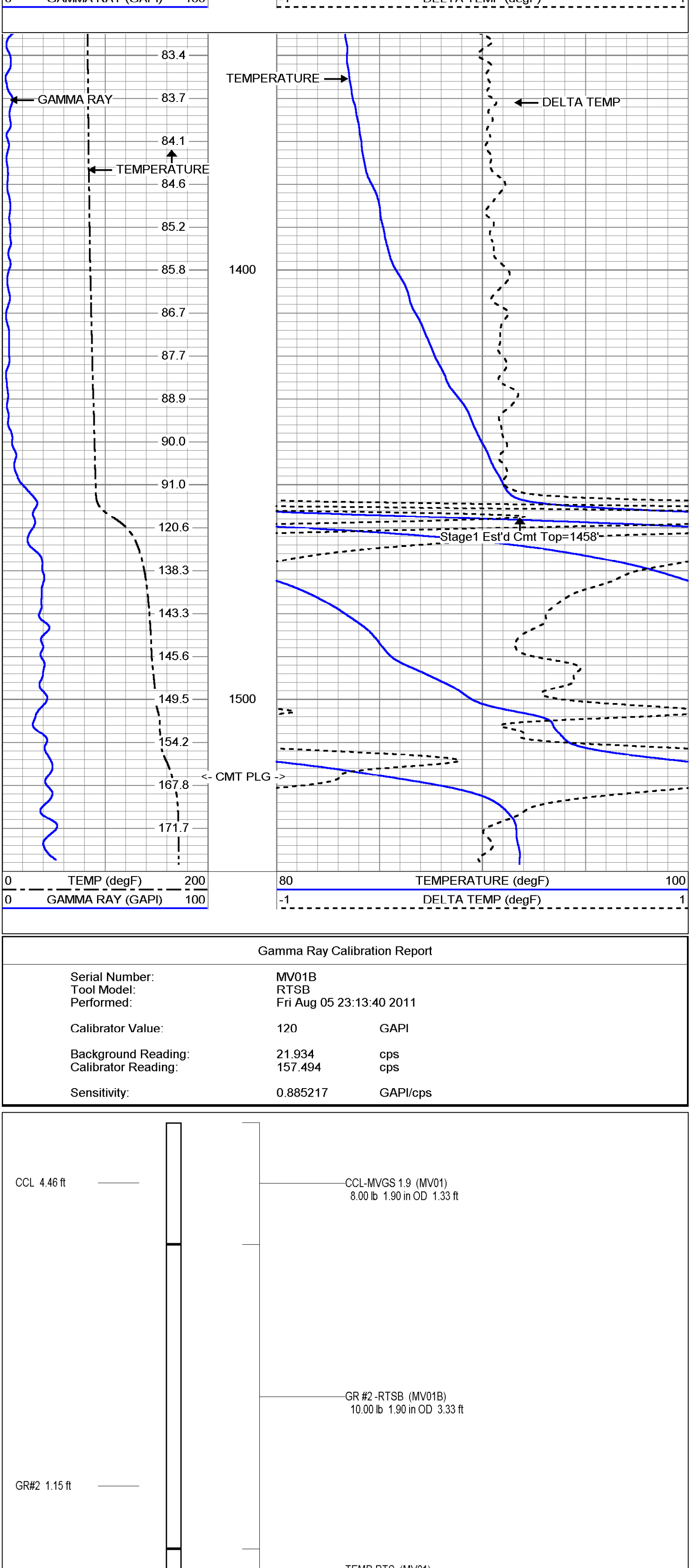
TEMPERATURE CALIBRATION REPORT (Performed: 19-JUL-11 09:15)

DEG-F	CPS
38.5	147.851
148.8	2690.21

MV Geophysical

Stage1 Est'dCmtTop=1458'

Database File: ltp1.db
Dataset Pathname: run9/pass2
Presentation Format: CTLCC-1
Dataset Creation: Fri Aug 05 23:30:49 2011 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240



Gamma Ray Calibration Report

Serial Number:	MV01B	
Tool Model:	RTSB	
Performed:	Fri Aug 05 23:13:40 2011	
Calibrator Value:	120	GAPI
Background Reading:	21.934	cps
Calibrator Reading:	157.494	cps
Sensitivity:	0.885217	GAPI/cps

Dataset:	run9/pass1
Total Length:	5.12 ft
Total Weight:	20.00 lb
O.D.	1.90 in

FPL-005C-491

MV Geophysical

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

CEMENT TOP LOG
HIGH RESOLUTION TEMPERATURE
GAMMA RAY

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Location: LAT: 25° 25' 19" N / LONG: 80° 20' 08" W
McNabb Hydrogeologic Consulting, Inc.
FPL Turkey Point Power Plant
Permanent Datum: Ground Level
Log Measured From: Pad Level
Drilling Measured From: Pad Level
Elevation: Pad Level 9.4 ft AMSL
K.B. 9.4
D.F.
G.L. 0.0
Elev.: K.B. 9.4
D.F.
G.L. 0.0
Other Services: NONE

Run Number: ONE
Depth Logged: 1228'
Bottom Logged Interval: 1228'
Top Logged Interval: SURFACE
Open Hole Size: 12.25"
Type Fluid in Hole: WATER
Density / Viscosity: 8.4 LB/G
Max. Recorded Temp.: 90 DEG F
Time Well Ready: 23:00 EDT 07/11
Time Logger on Bottom: 23:15 EDT 07/11
Equipment Number: MVGS-1
Location: 1228 FT
Recorded By: S.Durall (MHC)
Witnessed By: S.Mauer / Keller

Bit: Two 12.25"
Top: 0'
Bottom: 1228'

Casing Record: Size 13.375" Wgt 54.5# Grade J-55 From SURFACE To 250'
Prod. String: Size 5.5" Wgt 17# Grade J-55 From SURFACE To 1228'
Liner: Size 3.5" Wgt 9.3# Grade J-55 From 1228' To 1542'
Tubing: Size 2.375" Wgt 4.7# Grade J-55 From SURFACE To 1060'

Borehole Record: Size 12.25" From 250' To 1542'
Casing Record: Size 13.375" Wgt 54.5# Grade J-55 From SURFACE To 250'

K.Grewell (LCO) / D.Daigle (ASRen)

Invoice No: 20111351130

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Comments

CEMENT TOP LOG

STAGE	TOP	TAG	STAGE	TOP	TAG
1	1458'	1467'	2	1228'	xxxx'
3	xxx'	xxx'	4	xxx'	xxx'
5	xxx'	xxx'	6	xxx'	xxx'

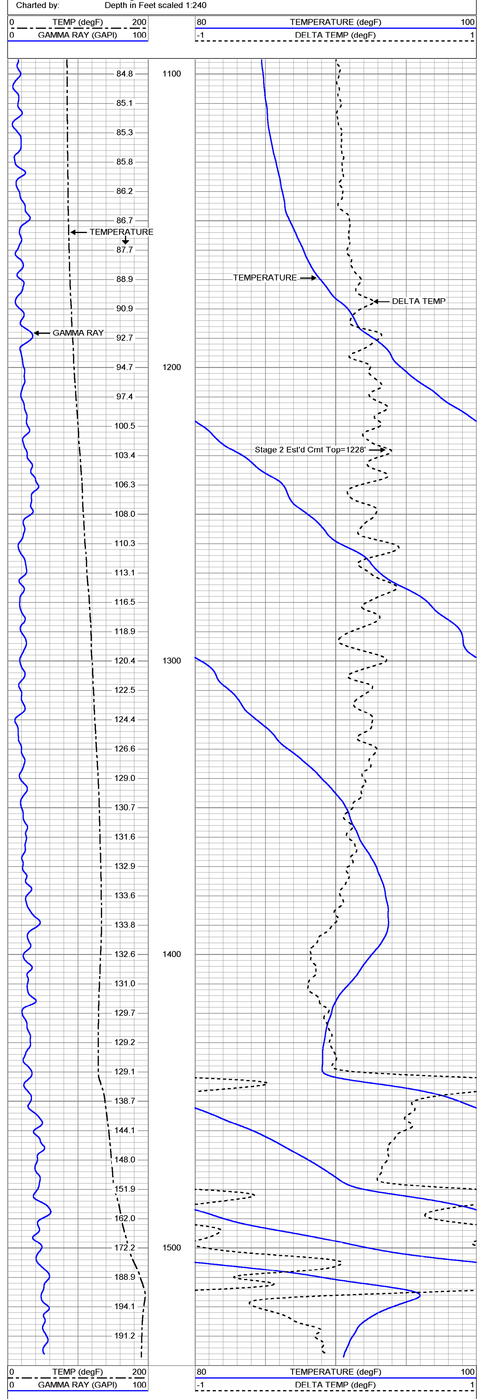
TEMPERATURE CALIBRATION REPORT (Performed: 19-JUL-11 09:15)

DEG-F	CPS
38.5	147.851
148.8	2690.21

MV Geophysical

Stage2 Est'dCmtTop=1228'

Database File: ltp1.db
Dataset Pathname: run9/stage2
Presentation Format: CTLOG-1
Dataset Creation: Sat Aug 06 12:29:45 2011
Charted by: Depth in Feet scaled 1:240



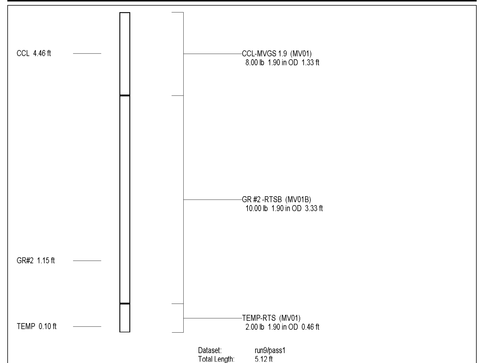
Gamma Ray Calibration Report

Serial Number: MV01B
Tool Model: RTGB
Performed: Fri Aug 05 23:13:40 2011

Calibrator Value: 120 GAPI

Background Reading: 21.934 cps
Calibrator Reading: 157.494 cps

Sensitivity: 0.885217 GAPI/cps



MV Geophysical

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

Location: LAT: 25° 25' 19" N LONG: 80° 20' 08" W
Permanent Datum: Mud Level
Log Measured From: Ground Level
Drilling Measured From: KB
Elevation: 0 ft GL

Other Services: NONE

CEMENT TOP LOG
HIGH RESOLUTION TEMPERATURE GAMMA RAY

Date: 19-Jul-11
Run No.: One
Depth Driller: 1597'
Depth Logger: 1597'
Bottom Logged Interval: 1597'
Top Logged Interval: 0'
Casing Driller: 8.625" @ 1597'
Casing Logger: 1597'
Bit Size: 7.875"
Type Fluid in Hole: Water
Density / Viscosity: 8.4 lb/gal
PH / Fluid Loss: 7.0
Source of Sample: Pit
Rm @ Meas. Temp: 0.0 @ 0°F
Rmf @ Meas. Temp: 0.0 @ 0°F
Rmc @ Meas. Temp: 0.0 @ 0°F
Source of Rmf / Rmc: Calculated
Rm @ BHT: 0.0 @ 0°F
Time Since Circ.: 0 hr
Max. Rec. Temp.: 0°F
Equipment Location: 5 Miles / Miami
Recorded By: S.Kaufman
Witnessed By: Engineer

Run Number: One
Depth Driller: 1597'
Depth Logger: 1597'
Bottom Logged Interval: 1597'
Top Logged Interval: 0'
Type Fluid in Hole: Water
Salinity: 0 ppm
Density: 8.4 lb/gal
Level: Full

MV Geophysical

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

CEMENT TOP LOG
HIGH RESOLUTION TEMPERATURE
GAMMA RAY

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida
Location LAT. 25° 25' 19" N LONG. 80° 20' 08" W
McNabb Hydrogeologic Consulting, Inc.
FPL Turkey Point Power Plant

	Run Number	Depth Logger	Depth Driller	Bottom Logged Interval	Top Log Interval	Open Hole Size	Type Fluid in Hole	Max. Recorded Temp.	Estimated Surface Temp.	Time Logger on Bottom	Unit Number	Location	Recorded By	Witnessed By
	1	1551'	1551'	1551'	SURFACE	8.5"	FLO	87	78	23:36 10/07/11	5 Miami	5 Miami	A. Conover / CCL	D.Degler / Kitchen

Permanent Datum	Log Measured From	Drilling Measured From
Pad Level	K.B.	
Pad Level	D.F.	
Pad Level	G.L.	

Elevation

Elevation	Other Services
NONE	

Casing Driller	20" @	16" @	13 3/8" @	9 5/8" @	7" @	5" @	Liner Driller	20" @	16" @	13 3/8" @	9 5/8" @	7" @	5" @
Weight	94	65	54.5	40	29	18	Weight						
Grade	H-40	H-40	J-55	J-55	P-110	P-110	Grade						
Thread	BTC	BTC	BTC	BTC	BTC	BTC	Thread						
Depth Driller	80'	250'	1551'	3100'	5000'	5500'	Depth Driller						
Depth Logger	80'	250'	1551'	3100'	5000'	5500'	Depth Logger						
Bottom Logged Interval	80'	250'	1551'	3100'	5000'	5500'	Bottom Logged Interval						
Top Logged Interval	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	4900'	Top Logged Interval						

Stage	Top	Bottom	Type
1	1458'	1467'	PRIMARY
2	1228'	1257'	PRIMARY
3	1012'	1016'	PRIMARY
4	757'	xxx'	PRIMARY
5	xxx'	xxx'	PRIMARY
6	xxx'	xxx'	PRIMARY

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Comments

CEMENT TOP LOG

STAGE	TOP	TAG	STAGE	TOP	TAG
1	1458'	1467'	2	1228'	1257'
3	1012'	1016'	4	757'	xxx'
5	xxx'	xxx'	6	xxx'	xxx'

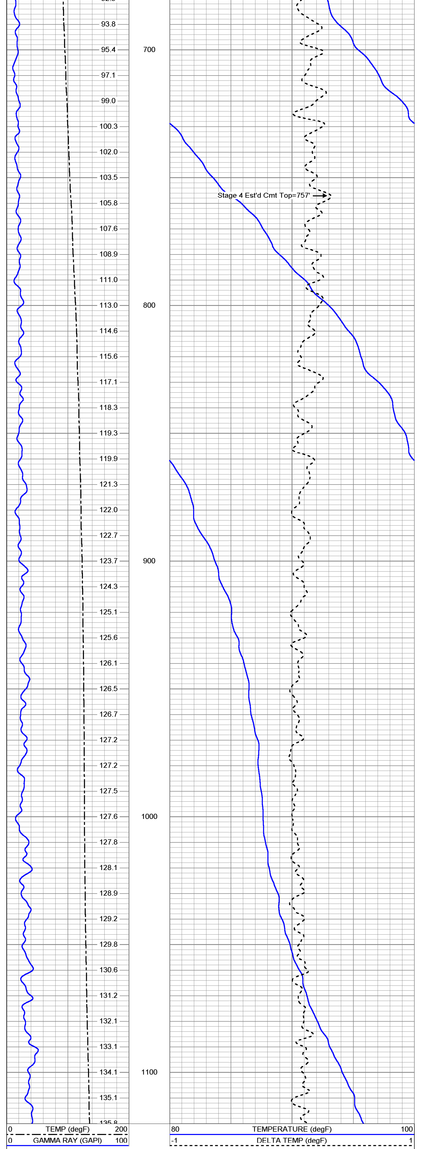
TEMPERATURE CALIBRATION REPORT (Performed: 19-JUL-11 09:15)

DEG-F	CPS
38.5	147.851
148.8	2690.21

MV Geophysical

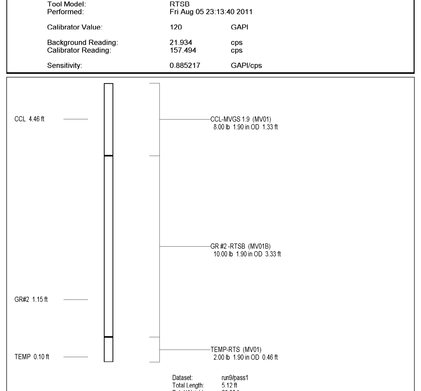
Stage4 Est'dCmtTop=757'

Database File: ltp1.db
Dataset Pathname: run0/pass4
Presentation Format: CTLCC-1
Dataset Creation: Sun Aug 07 13:56:35 2011 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240



Gamma Ray Calibration Report

Serial Number:	MV01B
Tool Model:	RTSB
Performed:	Fri Aug 05 23:13:40 2011
Calibrator Value:	120 GAPI
Background Reading:	21.934 cps
Calibrator Reading:	157.494 cps
Sensitivity:	0.885217 GAPI/cps



Dataset: run0/pass1
Total Length: 5.12 ft
Total Weight: 20.00 lb
O.D. 1.90 in

MV Geophysical

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida

CEMENT TOP LOG
HIGH RESOLUTION
TEMPERATURE
GAMMA RAY

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Florida City
County: Miami-Dade
State/Prv: Florida
Location: LAT: 25° 25' 19" N, LONG: 80° 20' 08" W
FPL Turkey Point Power Plant
McNabb Hydrogeologic Consulting, Inc.

	Elevation	Other Services
K.B.		NONE
D.F.		
G.L.		

Permanent Datum
Log Measured From
Drilling Measured From

Elevation
Paul Level
Paul Level
Paul Level

Date	12-30-Sep-2011 8b
Run Number	01-19-SP-2011 8c
Depth Driller	1581' CAP PLG
Depth Logger	2-AUG-2011
Bottom Logged Interval	1581' CAP PLG
Top Log Interval	
Casing Fluid Type	SEAWATER
Fluid Density	64
Fluid Level	0
Max. Recorded Temp.	100
Equipment Number	HOU
Location	23-SEP-2011
Recorded By	23-SEP-2011
Witnessed By	23-SEP-2011

Bow Spring Record

Run	Tool	Caliper Record	Tool Eccentralized
1	1.75"	6.5" - 2.75"	
2	1.75"	6.5" - 2.75"	
3	1.75"	6.5" - 2.75"	

Centralizer Record

Run	Tool	Size
1	1.75"	6.5" - 2.75"
2	1.75"	6.5" - 2.75"
3	1.75"	6.5" - 2.75"

Logged Interval

Run	From	To
1	1000'	1581'
2	1000'	1581'
3	1000'	1581'

Casing Record

Run	Type	Size	Weight	From	To
1	SURFACE	20"	94#	0	1000'
2	SURFACE	20"	94#	0	1000'
3	SURFACE	20"	94#	0	1000'

Tubing Record

Run	Type	Size	Weight	From	To
1	SURFACE	8"	24#	0	1000'
2	SURFACE	8"	24#	0	1000'
3	SURFACE	8"	24#	0	1000'

Bottom Hole Assembly

Run	Type	Size	Weight	From	To
1	1.75"	6.5" - 2.75"			1582'
2	1.75"	6.5" - 2.75"			1582'
3	1.75"	6.5" - 2.75"			1582'

Invoice No.: 20111134-142
Logging Engineer: K.Grosel (LCG)
Witnessed By: D.Driggs (ASRcon)
Remarks: Stage5 Est'dCmtTop=504'
Recorded By: Ft. Myers
Location: Ft. Myers
Time Logger on Bottom: 5:00 AM 24-SEP-2011
Time Logger at Surface: 23:59 23-SEP-2011
Equipment Number: HOU
Max. Recorded Temp.: 100
Fluid Level: 0
Fluid Density: 64
Type Fluid: SEAWATER
Casing Fluid Type: SEAWATER
Bottom Logged Interval: 1581' CAP PLG
Depth Driller: 1581' CAP PLG
Depth Logger: 2-AUG-2011
Bottom Logged Interval: 12-30-Sep-2011 8b
Top Log Interval: 01-19-SP-2011 8c
Casing Fluid Type: 1581' CAP PLG
Fluid Density: 2-AUG-2011
Fluid Level: 1581' CAP PLG
Max. Recorded Temp.: 100
Equipment Number: HOU
Location: 23-SEP-2011
Recorded By: 23-SEP-2011
Witnessed By: 23-SEP-2011

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Comments

CEMENT TOP LOG

STAGE	TOP	TAG	STAGE	TOP	TAG
1	1458'	1467'	2	1228'	1257'
3	1012'	1016'	4	757'	761'
5	504'	499'	6	xxx'	xxx'

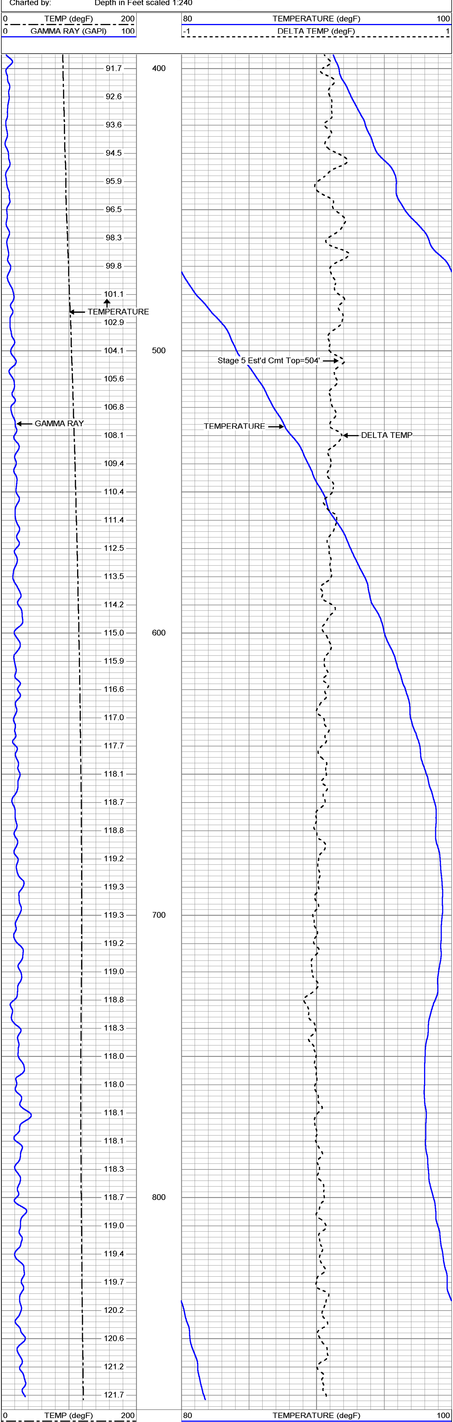
TEMPERATURE CALIBRATION REPORT (Performed: 19-JUL-11 09:15)

DEG-F	CPS
38.5	147.851
148.8	2690.21

MV Geophysical

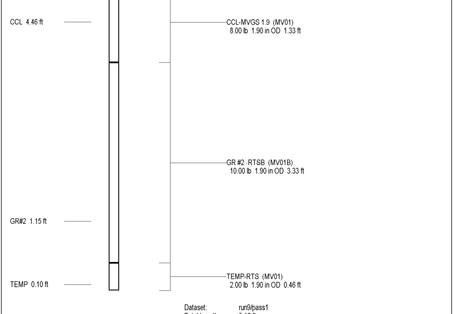
Stage5 Est'dCmtTop=504'

Database File: ltp1.db
Dataset Pathname: run9/pass5
Presentation Format: CTLCC-1
Dataset Creation: Mon Aug 08 05:47:23 2011 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240



Gamma Ray Calibration Report

Serial Number:	MV01B	
Tool Model:	RTSB	
Performed:	Fri Aug 05 23:13:40 2011	
Calibrator Value:	120	GAPI
Background Reading:	21.934	cps
Calibrator Reading:	157.494	cps
Sensitivity	0.885217	GAPI/cps



Dataset: run9\pass1
Total Length: 5.12 ft
Total Weight: 20.00 lb
O.D. 1.90 in

MV Geophysical

CEMENT TOP LOG
HIGH RESOLUTION TEMPERATURE GAMMA RAY

Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State/Prv Florida

Company	Layne Christensen Company
Well	Turkey Point EW-1
Field	Florida City
County	Miami-Dade State/Prv Florida
Location	FPL Turkey Point Power Plant LAT: 25 25' 19" N LONG: 80 20' 08" W McNabb Hydrogeologic Consulting, Inc.
Other Services	NONE

			Elevation
Permanent Datum	Pad Level		K.B.
Log Measured From	Pad Level		D.F.
Drilling Measured From	Pad Level		G.L.

Date	5-AUG-2011		12:30 8/6/2011 8b	
Run Number	EIGHT-A		1228'	
Depth Driller	1531' CMT PLG		01:15 8/7/2011 8c	
Depth Logger	1518'		1012'	
Bottom Logged Interval	1518'		14:00 8/7/2011 8d	
Top Log Interval	SURFACE		757'	
Open Hole Size	42.5"		05:45 8/8/2011 8e	
Type Fluid	H2O		504'	
Density / Viscosity	NA/NA		17:00 8/8/2011 8f	
Max. Recorded Temp.	see log		388'	
Estimated Cement Top	1458'			
Time Well Ready	23:00 8/5/2011			
Time Logger on Bottom	23:30 8/5/2011			
Equipment Number	MVGS-1			
Location	Ft. Myers			
Recorded By	S.Miller/C.Miller			
Witnessed By	S.Durall (MHC)		K.Greuel (LCC)	D.Daigle (ASRus)

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	12.25"	SURFACE	255'	FIVE	12.25"	1090'	1655'
TWO	62.5"	SURFACE	259'	SIX	42.5"	1090'	1542'
THREE	12.25"	255'	1090'				
FOUR	52.5"	255'	1095'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	64"	0.375" WT	SURFACE	33'
Prot. String	54"	0.375" WT	SURFACE	255'
Production String	44"	0.375" WT	SURFACE	1090'
Liner	34"	0.375" WT	SURFACE	1535'

Invoice No. 2011138-144 | LTP1.db | 8ftd/las/pdf | * FINAL PRINT *

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Comments

CEMENT TOP LOG

STAGE	TOP	TAG	STAGE	TOP	TAG
1	1458'	1467'	2	1228'	1257'
3	1012'	1016'	4	757'	761'
5	504'	499'	6	388'	xxx'

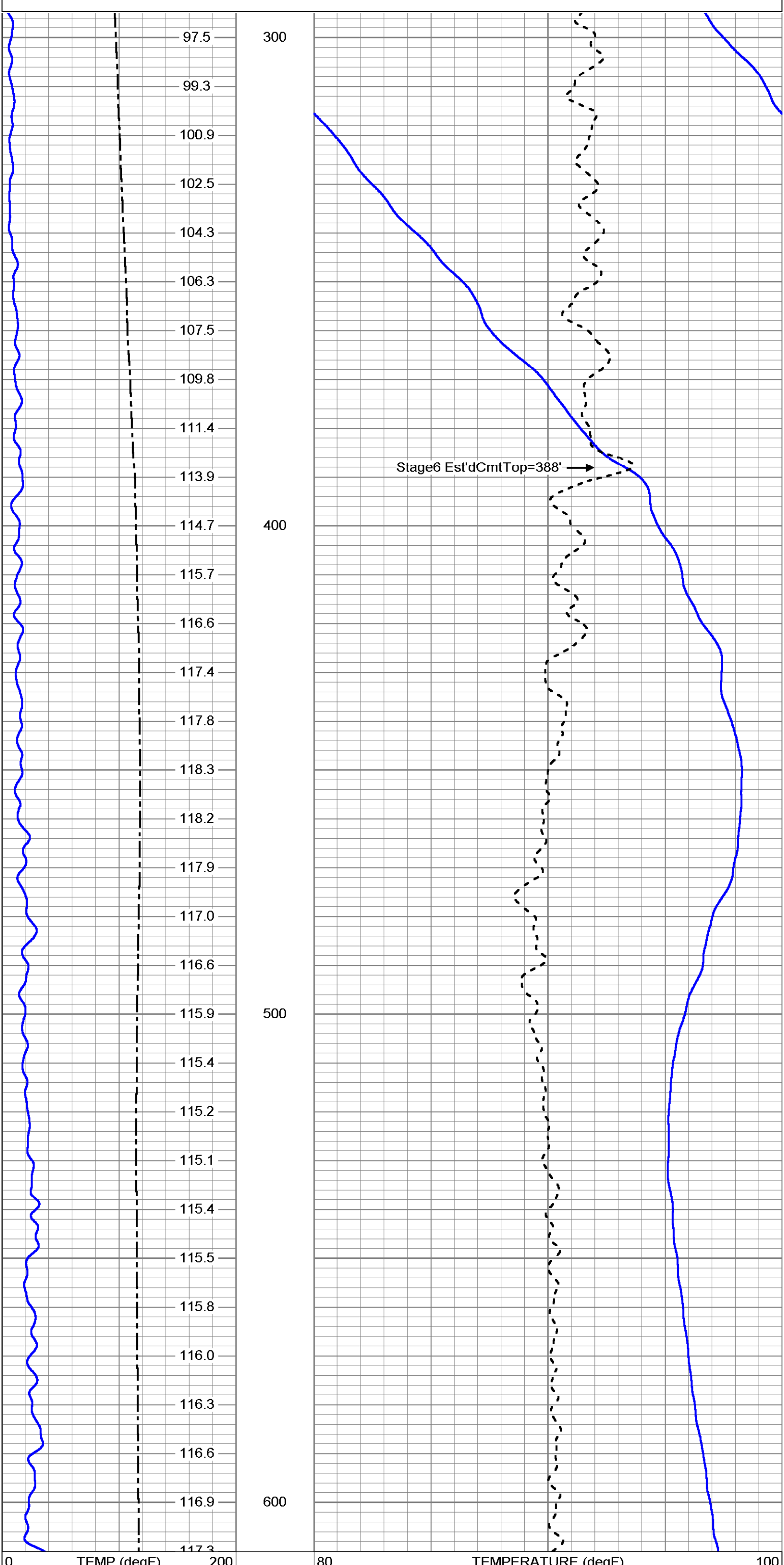
TEMPERATURE CALIBRATION REPORT (Performed: 19-JUL-11 09:15)

DEG-F	CPS
38.5	147.851
148.8	2690.21

MV Geophysical

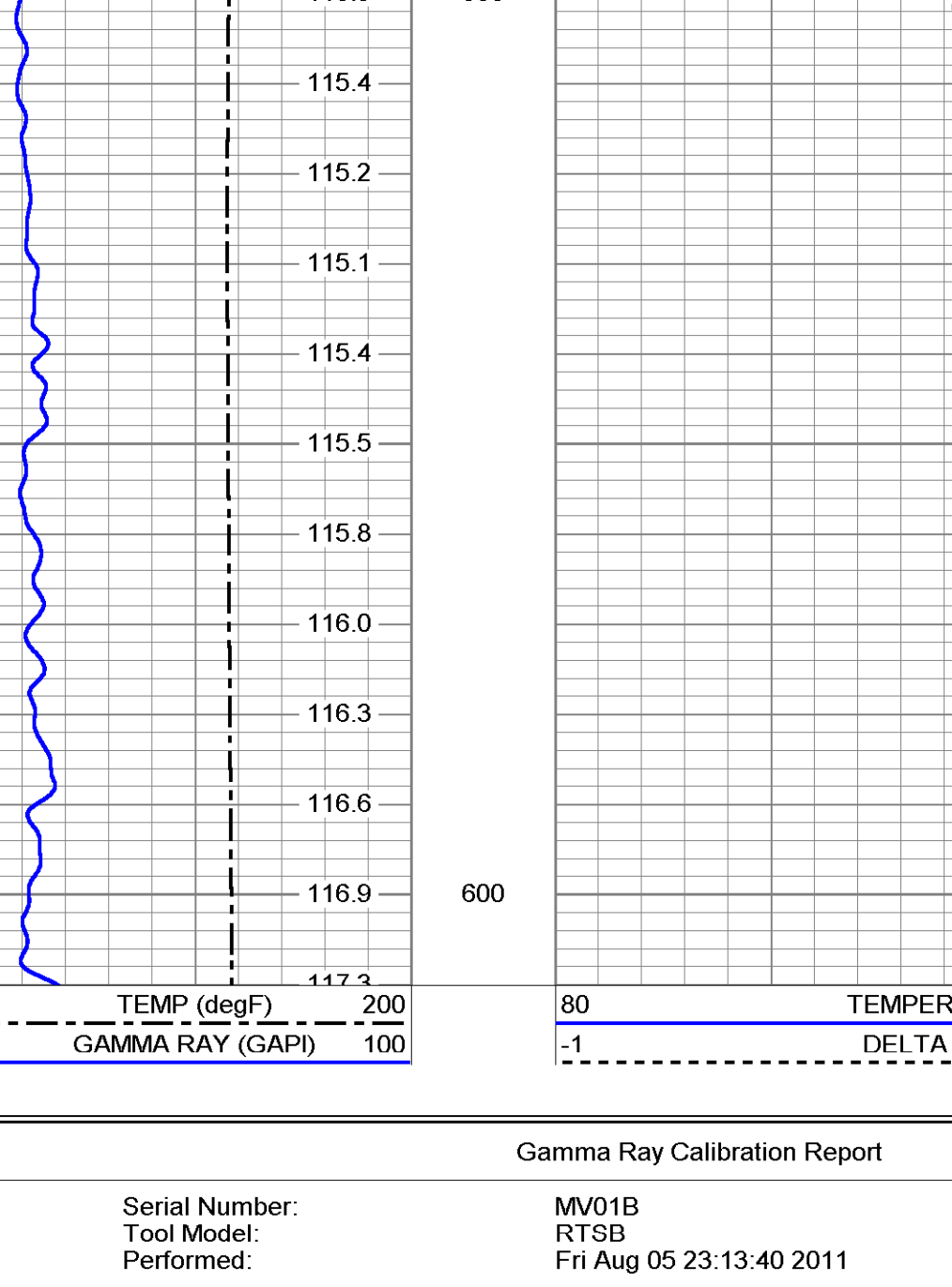
Stage6 Est'dCmtTop=388'

Database File: ltp1.db
Dataset Pathname: run9/pass6
Presentation Format: CTLCC-1
Dataset Creation: Mon Aug 08 16:57:40 2011 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240



Gamma Ray Calibration Report

Serial Number:	MV01B	
Tool Model:	RTSB	
Performed:	Fri Aug 05 23:13:40 2011	
Calibrator Value:	120	GAPI
Background Reading:	21.934	cps
Calibrator Reading:	157.494	cps
Sensitivity:	0.885217	GAPI/cps



Dataset:	run9/pass1
Total Length:	5.12 ft
Total Weight:	20.00 lb
O.D.	1.90 in

FPL-005C-496

| | | |

Company Layne Christensen Company
Well Turkey Point EW-1
Field Turkey Point
County Miami-Dade
State Florida

Country USA
API/ UWI

Date/Time 08-Jul-11 11:13:33 (EST)
Created By Depth Unit Loaded: Feet

Caliper Arm Extension 33"

Caliper Offset 0.00

Caliper Type Mechanical

Caliper Calibration Report

Calibration Report

Gamma Ray Calibration Report

Comments

MAXIMUM Caliper Arm Extension: 33"

BOREHOLE VOLUMES IN CUBIC FEET

Drill Pipe set to 1532'

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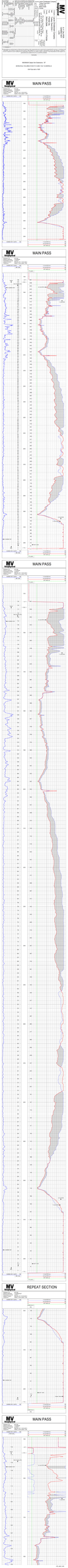
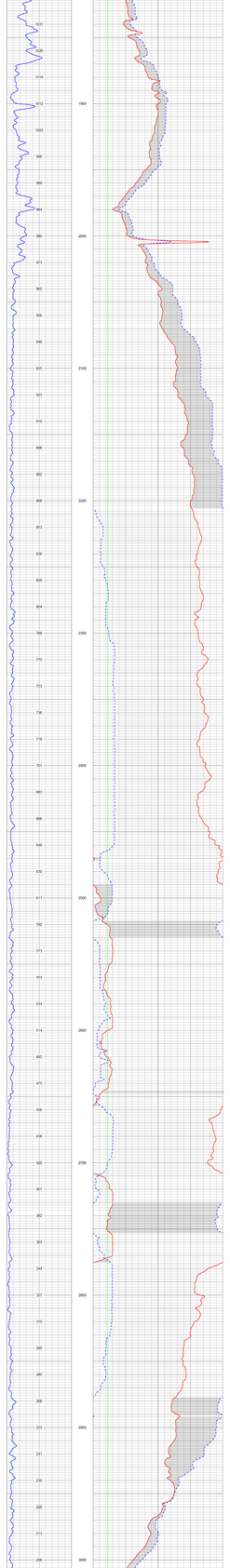

MV
Mudlogging
Unit : Geoservices
Logging Engineer : Mr. Ahmed
Date : 20-Mar-2016
Time : 08:00 Hrs
Depth : 1,000 m
Bit Depth : 1,000 m
Hole Depth : 1,000 m
Rig : Nabors M09
Rig Type : Land
Rig Heading : 0°
Rig Elevation : 0 m
Rig Floor : 0 m
Ground Level : 0 m
Water Depth : 0 m
Air Gap : 0 m
Rig Activity : Rig Up
Operation : Rig Up
Last Survey : 0 m
Inclination : 0°
Azimuth : 0°
Next Survey : 0 m
Inclination : 0°
Azimuth : 0°
Mud Type : Water Based
Mud Weight : 8.33 ppg
Viscosity : 26 sec/qt
PV : 0 cp
YP : 0 lb/100ft²
Gels 10s : 0
Gels 10m : 0
Gels 30m : 0
Filtrate : 0 ml/30min
Cake : 0 mm
Solids : 0 %
Sand : 0 %
MBT : 0 ppb
pH : 0
Pm : 0
Pf : 0
Mf : 0
Chlorides : 0 mg/l
Calcium : 0 mg/l
Magnesium : 0 mg/l
Potassium : 0 mg/l
Fluoride : 0 mg/l
Sulphites : 0 mg/l
Hardness : 0 mg/l
Lime : 0 ppb
Excess Lime : 0 ppb
Oil : 0 %
Water : 0 %
Solids : 0 %
Oil/Water Ratio : 0/0
Electrical Stability : 0 V
Low Gravity Solids : 0 %
Barite : 0 %
Bentonite : 0 %
Drill Solids : 0 %
Chemical Consumption
Barite : 0 sx
Bentonite : 0 sx
Caustic Soda : 0 sx
Soda Ash : 0 sx
Lime : 0 sx
Gypsum : 0 sx
Salt : 0 sx
Polymer : 0 sx
Lost Circulation Material : 0 sx
Surfactant : 0 sx
Defoamer : 0 sx
Biocide : 0 sx
Oxygen Scavenger : 0 sx
Corrosion Inhibitor : 0 sx
Scale Inhibitor : 0 sx
Emulsifier : 0 sx
Wetting Agent : 0 sx
Viscosifier : 0 sx
Thinner : 0 sx
Weighting Agent : 0 sx
Fluid Loss Additive : 0 sx
Shale Inhibitor : 0 sx
Lubricant : 0 sx
Pipe Freeing Agent : 0 sx
Spotting Fluid : 0 sx
Cement : 0 sx
Accelerator : 0 sx
Retarder : 0 sx
Dispersant : 0 sx
Fluid Loss Additive : 0 sx
Lost Circulation Material : 0 sx
Weighting Agent : 0 sx
Viscosifier : 0 sx
Thinner



Calibration Report

Database File: ftp1fs.db
Dataset Pathname: run10/pass1
Dataset Creation: Wed Nov 30 08:46:52 2011 by Log VSR_5.3

XY Caliper Calibration Report

Serial Number	310	
Tool Model	XYCS	
Performed	Wed Nov 30 08:47:53 2011	
Small Ring	12	in
Large Ring	53	in
	X Caliper	Y Caliper
Reading with Small Ring	554.5	740.9 cps
Reading with Large Ring	1123.3	1066.2 cps
Gain	0.0485739	0.0646957
Offset	-22.5021	-35.706

Gamma Ray Calibration Report

Serial Number	10	
Tool Model	GRCH	
Performed	Wed Nov 30 08:12:07 2011	
Calibrator Value	120	GAPI
Background Reading	17.116	cps
Calibrator Reading	131.857	cps
Sensitivity	1.64062	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			GR-GRCH (ST)	2.75	3.50	40.00
GR	5.00		XYC-XYCS (ST03)	6.60	3.50	110.00
XCAL	0.50					
YCAL	0.50					

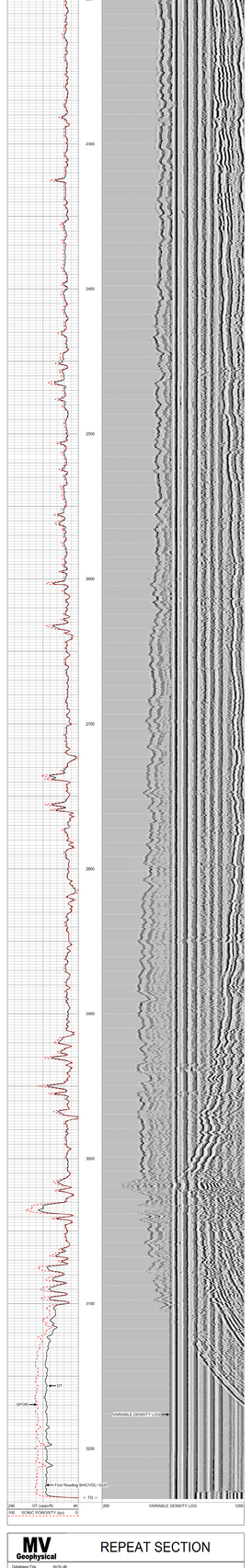
Dataset: ftp1fs.db: field/west/run10/pass1
Total Length: 9.35 ft
Total Weight: 150.00 lb
O.D.: 3.50 in

Company	Layne Christensen Company
Well	Turkey Point ID9-1
Field	Florida City
County	Miami-Dade
State	Florida
Country	USA

MV Geophysical

FILMING 000

Run - Rerun - Pumpdown
Wash - Scale Squeeze
Other Services
Perforating Record
Cement Bond Log
Cement Evaluation Log
Corrosion Evaluation
Borehole Geometry
Reservoir Saturation
Flow Profile
Miscellaneous
Well Test
Gas Lift
Coiled Tubing
Slickline
Fluid Sample
Other
Log Type
Log Purpose
Company
Well
Field
County
State
Location
Permanent Datum
Log Measured From
Drilling Measured From
Elevation
Elevation
Elevation
Date
Run Number
Depth Driller
Depth Logger
Bottom Logged Interval
Top Logged Interval
Casing Driller
Casing Logger
Bit Size
Type Fluid in Hole
Density / Viscosity
pH / Fluid Loss
Source of Sample
Rm @ Measured Temp
Rmf @ Measured Temp
Rmc @ Measured Temp
Source of Rmf / Rmc
Rm @ BHT
Time Since Circulation
Time Since Circulation
Max Rec Temp
Equipment Number
Location
Recorded By
Witnessed By
Run 1
Run 2
Run 3
Service Order
Permanent Datum
Elevation
Log Measured From
Drilling Measured From
Elevation
Elevation
Elevation
Date
Run Number
Depth Driller
Depth Logger
Bottom Logged Interval
Top Logged Interval
Casing Driller
Casing Logger
Bit Size
Type Fluid in Hole
Density / Viscosity
pH / Fluid Loss
Source of Sample
Rm @ Measured Temp
Rmf @ Measured Temp
Rmc @ Measured Temp
Source of Rmf / Rmc
Rm @ BHT
Time Since Circulation
Time Since Circulation
Max Rec Temp
Equipment Number
Location
Recorded By
Witnessed By
Run 1
Run 2
Run 3
Service Order
Remarks
Some Possibly near-run or a Lowermost Mech. Int? Ft.
Start Depth and a Total
Logging Engineer
Operating Rig Time
Logging Engineer
Operating Rig Time
Logging Engineer
Operating Rig Time



REPEAT SECTION

Database File: tlp1b.db
Dataset Pathname: run10/EPCAT
Open Mode: Overwrite
Dataset Creation: Wed Nov 30 15:24:26 2011
Charted by: Depth in Feet scaled 1:240

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
WVF1	8.50					
WVF3	8.50					
			SLT-GO (245)	16.00	3.50	127.00
TT1	7.50					
TT2	7.50					
TT3	7.50					
TT4	7.50					
WVF2	6.50					
WVF4	6.50					

Dataset: tlp1b.db: field/well/run10/pass6
Total Length: 16.00 ft
Total Weight: 127.00 lb
O.D.: 3.50 in

Company	Layne Christensen Company
Well	Turkey Point EW-1
Field	Florida City
County	Miami-Dade
State	Florida

Country USA

Client: Cuadrilla Resources Limited
Well: Preston New Road PNR-2
Site: Preston New Road
Rig: Nabors 245
Job Type: 9.5" Vertical Section
Job Number: 1
Date: 2018-10-19
Time: 00:00:00
Depth Ref: RKB
Depth Type: Measured Depth
Scale: 1:500
Log Direction: Down
Log Type: Main Pass
Gamma Ref: Total Gamma
Gamma Type: Total Gamma
Gamma Unit: API
Gamma Scale: 0 - 150
Gamma Offset: 0
Gamma Color: Green
Resistivity Ref: Deep Resistivity
Resistivity Type: Deep Resistivity
Resistivity Unit: ohmm
Resistivity Scale: 0.2 - 2000
Resistivity Offset: 0
Resistivity Color: Blue
Density Ref: Bulk Density
Density Type: Bulk Density
Density Unit: g/cm3
Density Scale: 1.95 - 2.95
Density Offset: 0
Density Color: Red
Neutron Ref: Neutron Porosity
Neutron Type: Neutron Porosity
Neutron Unit: %
Neutron Scale: 45 - -15
Neutron Offset: 0
Neutron Color: Magenta
Caliper Ref: Caliper
Caliper Type: Caliper
Caliper Unit: in
Caliper Scale: 6 - 16
Caliper Offset: 0
Caliper Color: Black
Bit Size: 9.5
Casing Depth: 1,000.00 ft
Casing Size: 13.375 in
Casing Weight: 54.5 lb/ft
Casing Grade: J55
Casing Connection: BTC
Casing Depth: 3,000.00 ft
Casing Size: 9.625 in
Casing Weight: 40 lb/ft
Casing Grade: L80
Casing Connection: BTC
Mud Type: Water Based Mud
Mud Density: 8.4 ppg
Mud Viscosity: 40 s/qt
Mud Resistivity: 0.1 ohmm
Mud Temperature: 60 degF
Max Recorded Temperature: 150 degF
Max Recorded Temperature Depth: 5,000.00 ft
Max Deviation: 90 deg
Max Deviation Depth: 5,000.00 ft
Max Dogleg: 2 deg/100ft
Max Dogleg Depth: 5,000.00 ft
Max Tool OD: 6.75 in
Max Tool Length: 50 ft
Max Tool Weight: 5,000 lb
Max Tool Temperature: 175 degC
Max Tool Pressure: 20,000 psi
Max Tool Speed: 1,000 ft/hr
Max Tool Rotation: 200 rpm
Max Tool Vibration: 10 g
Max Tool Shock: 100 g
Max Tool Torque: 1,000 ft-lbf
Max Tool Bending: 100 ft-lbf
Max Tool Axial: 10,000 lbf
Max Tool Radial: 10,000 lbf
Max Tool Combined: 10,000 lbf
Max Tool Differential: 10,000 psi
Max Tool Flow: 1,000 gpm
Max Tool Pressure Drop: 1,000 psi
Max Tool Power: 1,000 hp
Max Tool Efficiency: 100 %
Max Tool Reliability: 100 %
Max Tool Availability: 100 %
Max Tool Maintainability: 100 %
Max Tool Safety: 100 %
Max Tool Environmental: 100 %
Max Tool Quality: 100 %
Max Tool Cost: 100 %
Max Tool Schedule: 100 %
Max Tool Risk: 100 %
Max Tool Uncertainty: 100 %
Max Tool Sensitivity: 100 %
Max Tool Robustness: 100 %
Max Tool Flexibility: 100 %
Max Tool Adaptability: 100 %
Max Tool Scalability: 100 %
Max Tool Modularity: 100 %
Max Tool Interoperability: 100 %
Max Tool Compatibility: 100 %
Max Tool Portability: 100 %
Max Tool Reusability: 100 %
Max Tool Maintainability: 100 %
Max Tool Testability: 100 %
Max Tool Debuggability: 100 %
Max Tool Observability: 100 %
Max Tool Controllability: 100 %
Max Tool Predictability: 100 %
Max Tool Repeatability: 100 %
Max Tool Reproducibility: 100 %
Max Tool Accuracy: 100 %
Max Tool Precision: 100 %
Max Tool Resolution: 100 %
Max Tool Sensitivity: 100 %
Max Tool Linearity: 100 %
Max Tool Hysteresis: 100 %
Max Tool Drift: 100 %
Max Tool Noise: 100 %
Max Tool Bandwidth: 100 %
Max Tool Frequency: 100 %
Max Tool Amplitude: 100 %
Max Tool Phase: 100 %
Max Tool Impedance: 100 %
Max Tool Admittance: 100 %
Max Tool Conductance: 100 %
Max Tool Susceptance: 100 %
Max Tool Capacitance: 100 %
Max Tool Inductance: 100 %
Max Tool Resistance: 100 %
Max Tool Reactance: 100 %
Max Tool Permittivity: 100 %
Max Tool Permeability: 100 %
Max Tool Dielectric: 100 %
Max Tool Magnetic: 100 %
Max Tool Electric: 100 %
Max Tool Electromagnetic: 100 %
Max Tool Acoustic: 100 %
Max Tool Optical: 100 %
Max Tool Thermal: 100 %
Max Tool Mechanical: 100 %
Max Tool Chemical: 100 %
Max Tool Nuclear: 100 %
Max Tool Biological: 100 %
Max Tool Environmental: 100 %
Max Tool Safety: 100 %
Max Tool Quality: 100 %
Max Tool Cost: 100 %
Max Tool Schedule: 100 %
Max Tool Risk: 100 %
Max Tool Uncertainty: 100 %
Max Tool Sensitivity: 100 %
Max Tool Robustness: 100 %
Max Tool Flexibility: 100 %
Max Tool Adaptability: 100 %
Max Tool Scalability: 100 %
Max Tool Modularity: 100 %
Max Tool Interoperability: 100 %
Max Tool Compatibility: 100 %
Max Tool Portability: 100 %
Max Tool Reusability: 100 %
Max Tool Maintainability: 100 %
Max Tool Testability: 100 %
Max Tool Debuggability: 100 %
Max Tool Observability: 100 %
Max Tool Controllability: 100 %
Max Tool Predictability: 100 %
Max Tool Repeatability: 100 %
Max Tool Reproducibility: 100 %
Max Tool Accuracy: 100 %
Max Tool Precision: 100 %
Max Tool Resolution: 100 %
Max Tool Sensitivity: 100 %
Max Tool Linearity: 100 %
Max Tool Hysteresis: 100 %
Max Tool Drift: 100 %
Max Tool Noise: 100 %
Max Tool Bandwidth: 100 %
Max Tool Frequency: 100 %
Max Tool Amplitude: 100 %
Max Tool Phase: 100 %
Max Tool Impedance: 100 %
Max Tool Admittance: 100 %
Max Tool Conductance: 100 %
Max Tool Susceptance: 100 %
Max Tool Capacitance: 100 %
Max Tool Inductance: 100 %
Max Tool Resistance: 100 %
Max Tool Reactance: 100 %
Max Tool Permittivity: 100 %
Max Tool Permeability: 100 %
Max Tool Dielectric: 100 %
Max Tool Magnetic: 100 %
Max Tool Electric: 100 %
Max Tool Electromagnetic: 100 %
Max Tool Acoustic: 100 %
Max Tool Optical: 100 %
Max Tool Thermal: 100 %
Max Tool Mechanical: 100 %
Max Tool Chemical: 100 %
Max Tool Nuclear: 100 %
Max Tool Biological: 100 %

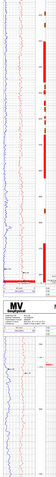
CAUTION: Presented is a non-standard Profile

Non-Cold-start log: 0.0 to high

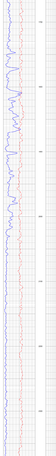
Drill Pipe Log to: 1500

MAIN PASS

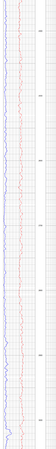
MAIN PASS

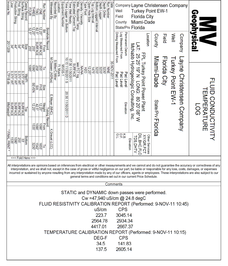


MAIN PASS



REPEAT SECTION





Comments

STATIC and DYNAMIC down passes were performed.
Cw =47,940 uS/cm @ 24.8 degC
FLUID RESISTIVITY CALIBRATION REPORT (Performed: 9-NOV-11 10:45)

DEPTH	TEMP	FLUID
223.7	3045.14	
2564.19	2934.34	
4417.01	2667.37	

TEMPERATURE CALIBRATION REPORT (Performed: 9-NOV-11 10:15)

DEPTH	TEMP	FLUID
54.5	141.83	
137.5	2655.14	

DYNAMIC FCT DOWN

Database File: fp1b.db
Dataset Pathname: fp1b/fp1dyn
Presentation Format: fp1g2
Dataset Creation: Wed Nov 30 21:18:16 2011
Charted by: Depth in Feet scaled 1:600

TS	TEMP (degF)	81	40000	FLUID CONDUCTIVITY (uS/cm)	60000
0.5	STEMP (degF)	0.5	Res (degF)		

temp (degF)

Fluid Conductivity

GR

CCG

DELTA TEMP

TEMP/NATURE

Fluid Conductivity

TD

STATIC FCT DOWN

Database File: fp1b.db
Dataset Pathname: fp1b/fp1stat
Presentation Format: fp1g2
Dataset Creation: Wed Nov 30 20:56:56 2011
Charted by: Depth in Feet scaled 1:600

TS	TEMP (degF)	80	40000	FLUID CONDUCTIVITY (uS/cm)	60000
0.5	STEMP (degF)	0.5	Res (degF)		

temp (degF)

Fluid Conductivity

GR

CCG

DELTA TEMP

TEMP/NATURE

Fluid Conductivity

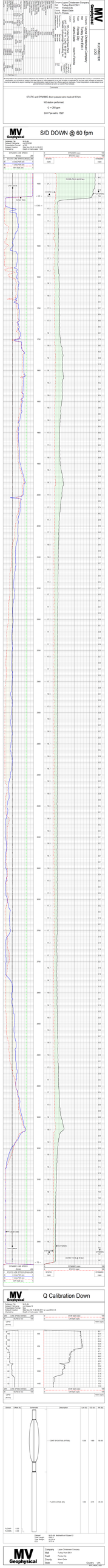
TD

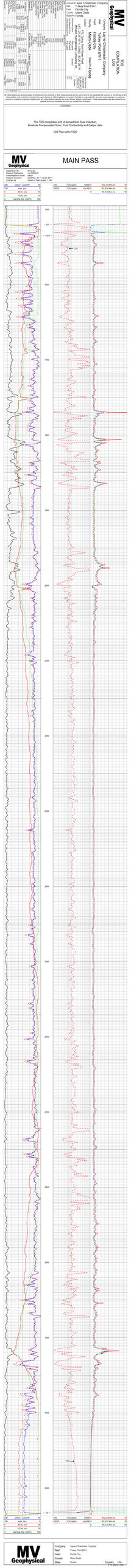
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	4.46		CCL-MV05.1 B (MV01)	1.33	1.90	8.00
			GR-KC 477SB (MV018)	3.33	1.90	10.00
GR/C	1.15					
TEMP	0.10		TEMP-RTS (MV01)	0.46	1.90	2.00

Dataset Pathname: fp1b/fp1stat/run1/3pass15
Total Length: 0.0
Total Weight: 0.0 lb
O.D. 1.90 in

Company	Layne Christensen Company
Well	Turkey Point EW-1
Field	Florida City
County	Miami-Dade
State	Florida
Country	USA

FPLMDL-0004


MV Geophysical
Company Lane Christensen Company
Survey Type Tunley Pure Silt I
Pond Ponds City
County Miami-Dade
State Florida
Field
Well
Date
Lane Christensen Company
Tunley Pure Silt I
Ponds City
Miami-Dade
Florida
FLOWER
Flow Log
Temperature
Conductivity
Gamma Ray
Caliper
Fluid Temperature
Fluid Conductivity
Flow
Differential Temperature
Differential Conductivity
Differential Flow
Pressure
Pressure Differential
Acoustic Televiewer
Optical Televiewer
Acoustic Caliper
Optical Caliper
Acoustic Caliper 2
Optical Caliper 2
Acoustic Caliper 3
Optical Caliper 3
Acoustic Caliper 4
Optical Caliper 4
Acoustic Caliper 5
Optical Caliper 5
Acoustic Caliper 6
Optical Caliper 6
Acoustic Caliper 7
Optical Caliper 7
Acoustic Caliper


MV Geophysical
Company Layne Christensen Company
Well Turkey Point EW-1
Field Florida City
County Miami-Dade
State Florida
Country USA
API/UWI/Other
Latitude 25° 26' 29.1" N
Longitude 80° 20' 37.9" W
Datum Ref. NAD83
Elevation 0 ft (KB)
0 ft (GL)
Permanent Datum Ground Level
Log Measured From KB
Drilling Measured From KB
Elevation 0 ft (KB)
0 ft (GL)
Run No. One
Depth Driller 1940 ft
Depth Logger 1940 ft
Bottom Logged Interval 1940 ft
Top Logged Interval 1000 ft
Casing Driller 1000 ft @ Bit
Casing Logger 1000 ft
Bit Size 12.25 in
Type Fluid in Hole Water
Density / Viscosity
pH / Fluid Loss
Source of Sample
Rm @ Measured Temp
Rmf @ Measured Temp
Rmc @ Measured Temp
Source of Rmf / Rmc
Rm @ BHT
Time Since Circulation
Time on Bottom 11:42 24-2017
Max. Rec. Temp. Deg. F
Equipment Number
Location
Recorded By
Witnessed By
TDS COMPENSATED LOG
Layne Christensen Company
Turkey Point EW-1
Florida City
Miami-Dade
Florida
USA
Other Services
DIL
Remarks
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current price schedule.
Comments
The TDS compilation plot id derived from Dual Induction, Borehole Compensated Sonic, Fluid Conductivity and Caliper data
Drill Pipe set to 1020'
MV Geophysical
MAIN PASS
Database File turbo
Dataset Creation 12:42 24-JAN-2018
Measured Depth Log Bottom 1940 ft
Measured Depth Log Top 1000 ft
Charted by Depth in Feet scaled 1:240
DIL Delta T (usec/ft) 40 140
SFP (mV) 0 100
ILD (Ohm-m) 0.2 2000
SGL (mV) 100 0
Gamma Ray (GAPI) 100 100
TDS (ppm) 10000 TDS (ppm) 10000 Sw=50% 0 RLLS (Ohm-m) 10 RLM (Ohm-m) 10 RLD (Ohm-m) 10
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900

ALLWEBBS ENTERPRISES, INC.

X-Y CALIPER GAMMA RAY LOG

Company LAYNE CHRISTENSEN COMPANY
Well TURKEY POINT EW-1
Field FLORIDA CITY
County MIAMI-DADE
State FLORIDA

Location: API # :
FPL TURKEY POINT POWER PLANT
LAT: 25 25'19"N LONG: 80 20' 08" W
MC NABB HYDROGEOLOGIC CONSULTING, INC.
SEC TWP RGE

Other Services
NONE

Permanent Datum GL Elevation
Log Measured From GL
Drilling Measured From GL

Elevation
K.B.
D.F.
G.L.

Date	6-JAN-2012
Run Number	TEN
Depth Driller	3230'
Depth Logger	2742'
Bottom Logged Interval	2742'
Top Log Interval	CASING
Open Hole Size	12.25"
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	SURFACE
Time Well Ready	0000
Time Logger on Bottom	0000
Equipment Number	VA-202
Location	JUPITER
Recorded By	LEE
Witnessed By	S.DURALL

Borehole Record

Run Number	Bit	From	To
TEN	28"	CASING	2270'

Borehole Record

Run Number	Bit	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	34"	.375 W.T	SURFACE	1535'
Prot. String				
Production String				
Liner				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

ALLWEBBS

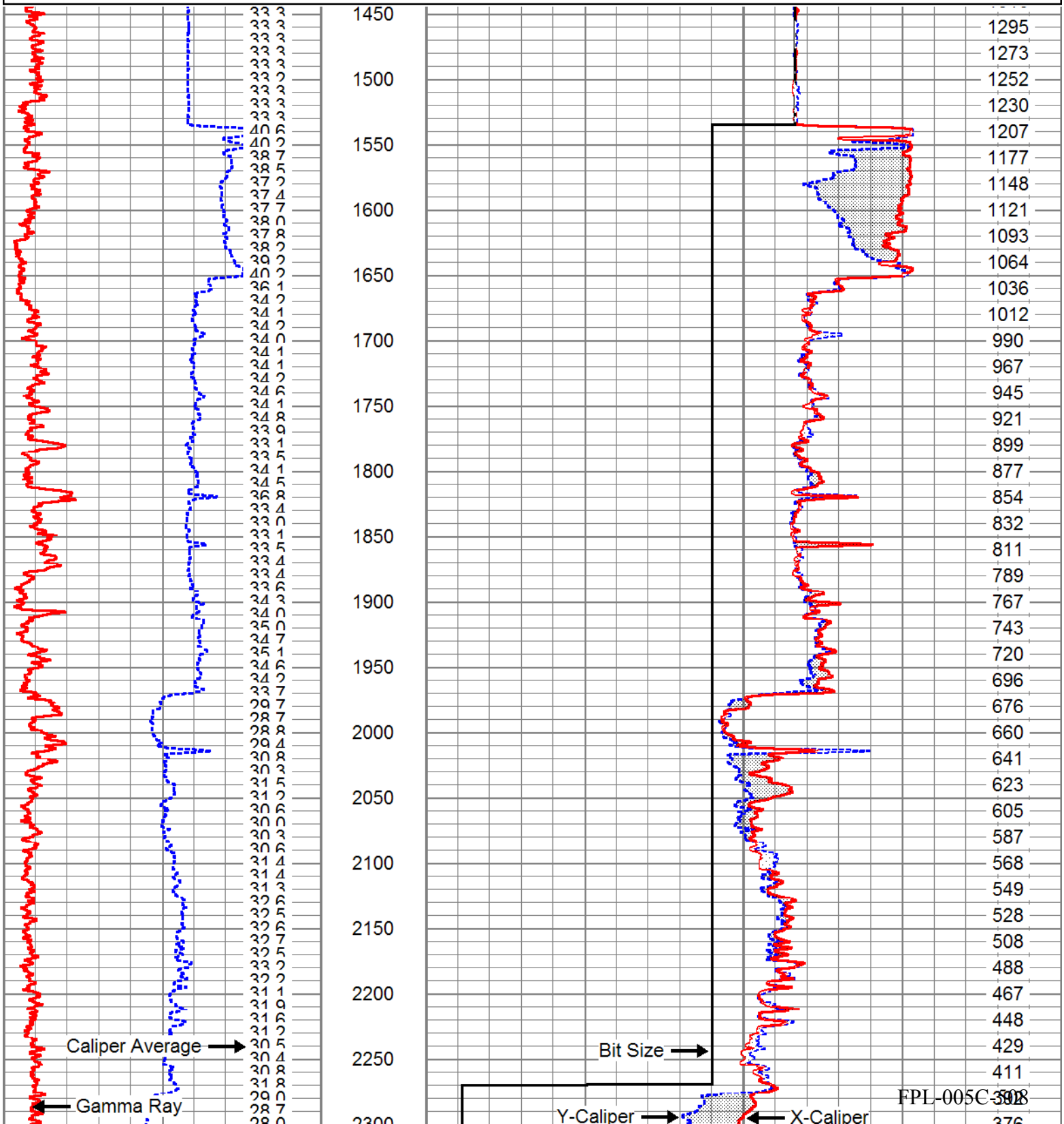
MAIN PASS

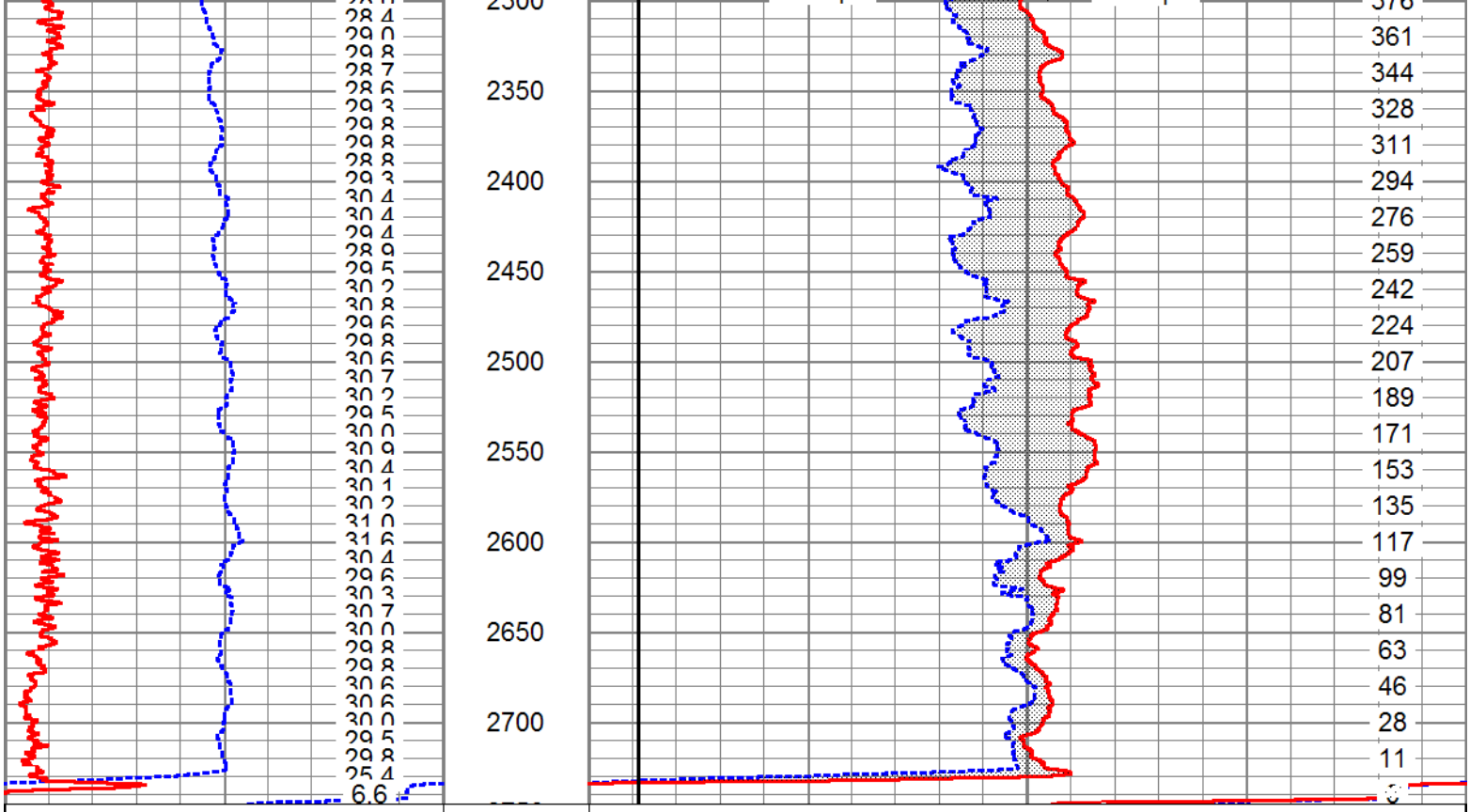
ENTERPRISES, INC.

Database File: tpew1.db
Dataset Pathname: XYCMP1
Presentation Format: xyc
Dataset Creation: Fri Jan 06 15:30:37 2012 by Calc Open-Cased 071220
Charted by: Depth in Feet scaled 1:1200

10	Caliper Average (in)	50
0	Gamma Ray (GAPI)	100
	CALA (in)	

10	Y-Caliper (in)	50
10	X-Caliper (in)	50
10	Borehole ID (in)	50
	TBHV (bbl)	





10	Caliper Average (in)	50
0	Gamma Ray (GAPI)	100
	CALA (in)	

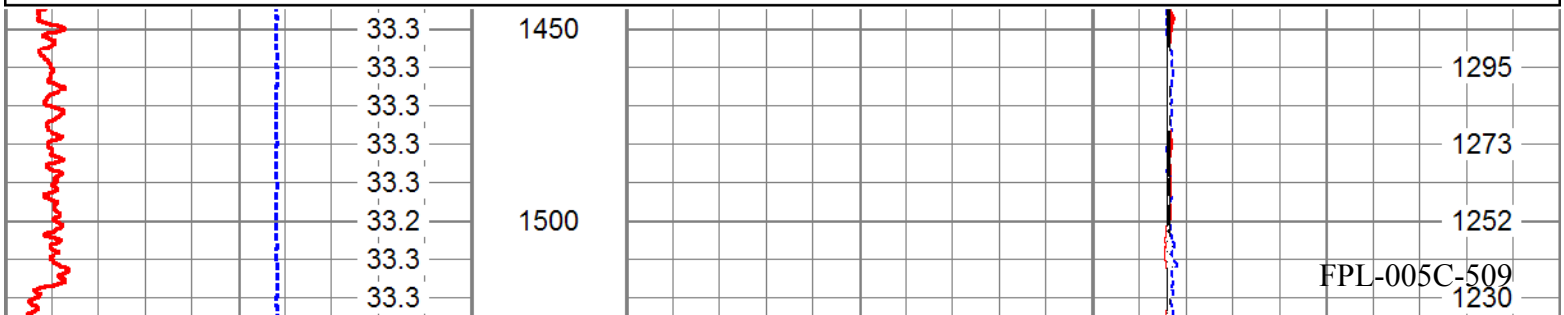
10	Y-Caliper (in)	50
10	X-Caliper (in)	50
10	Borehole ID (in)	50
	TBHV (bbl)	

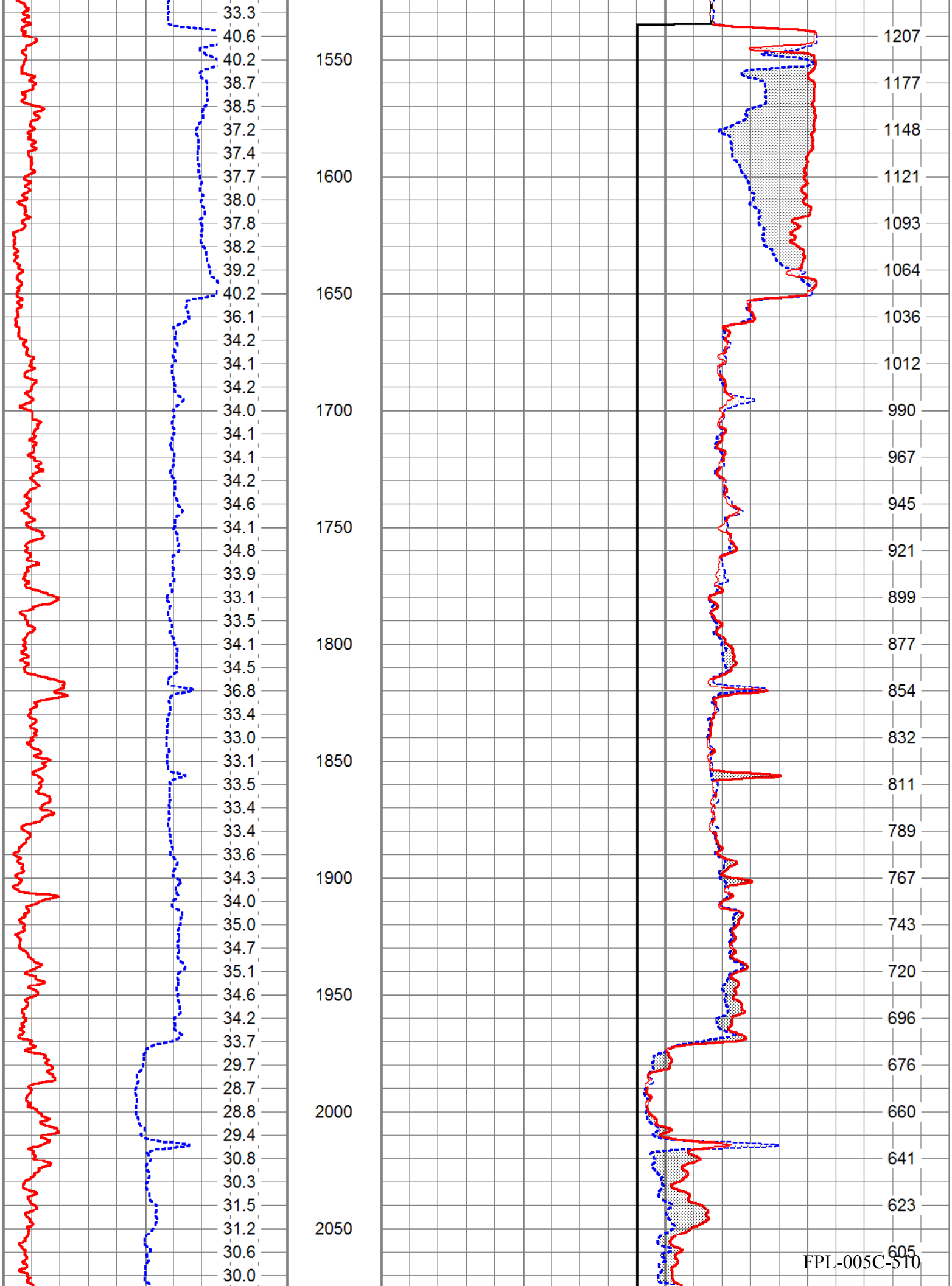
MAIN PASS

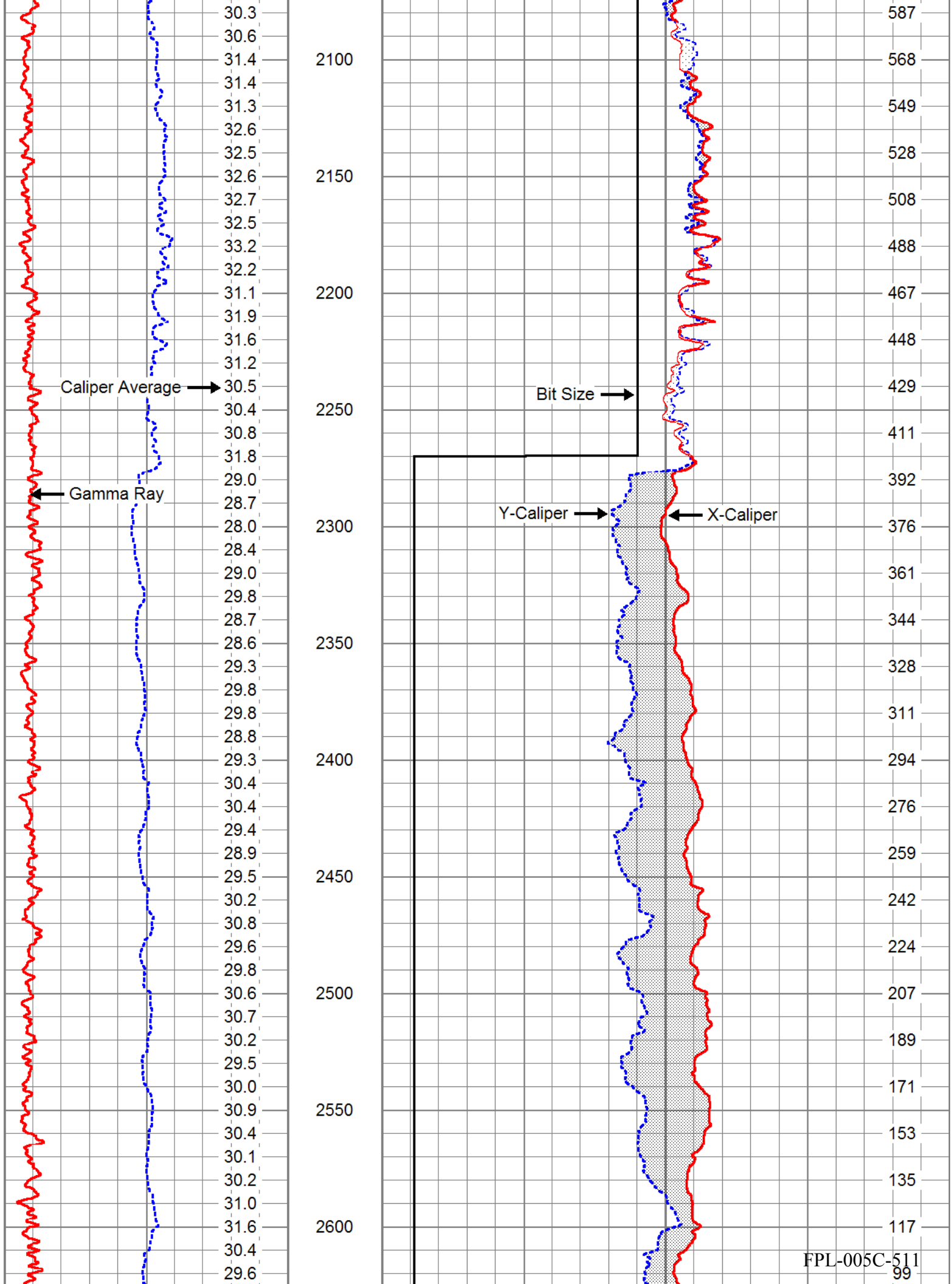
Database File: tpew1.db
Dataset Pathname: XYCMP1
Presentation Format: xyc
Dataset Creation: Fri Jan 06 15:30:37 2012 by Calc Open-Cased 071220
Charted by: Depth in Feet scaled 1:600

10	Caliper Average (in)	50
0	Gamma Ray (GAPI)	100
	CALA (in)	

10	Y-Caliper (in)	50
10	X-Caliper (in)	50
10	Borehole ID (in)	50
	TBHV (bbl)	




33.3
40.6
40.2
38.7
38.5
37.2
37.4
37.7
38.0
37.8
38.2
39.2
40.2
36.1
34.2
34.1
34.2
34.0
34.1
34.1
34.2
34.6
34.1
34.8
33.9
33.1
33.5
34.1
34.5
36.8
33.4
33.0
33.1
33.5
33.4
33.4
33.6
34.3
34.0
35.0
34.7
35.1
34.6
34.2
33.7
29.7
28.7
28.8
29.4
30.8
30.3
31.5
31.2
30.6
30.0
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
1207
1177
1148
1121
1093
1064
1036
1012
990
967
945
921
899
877
854
832
811
789
767
743
720
696
676
660
641
623
605


Caliper Average
Gamma Ray
Bit Size
Y-Caliper
X-Caliper
30.3 30.6 31.4 31.4 31.3 32.6 32.5 32.6 32.7 32.5 33.2 32.2 31.1 31.9 31.6 31.2 30.5 30.4 30.8 31.8 29.0 28.7 28.0 28.4 29.0 29.8 28.7 28.6 29.3 29.8 29.8 28.8 29.3 30.4 30.4 29.4 28.9 29.5 30.2 30.8 29.6 29.8 30.6 30.7 30.2 29.5 30.0 30.9 30.4 30.1 30.2 31.0 31.6 30.4 29.6
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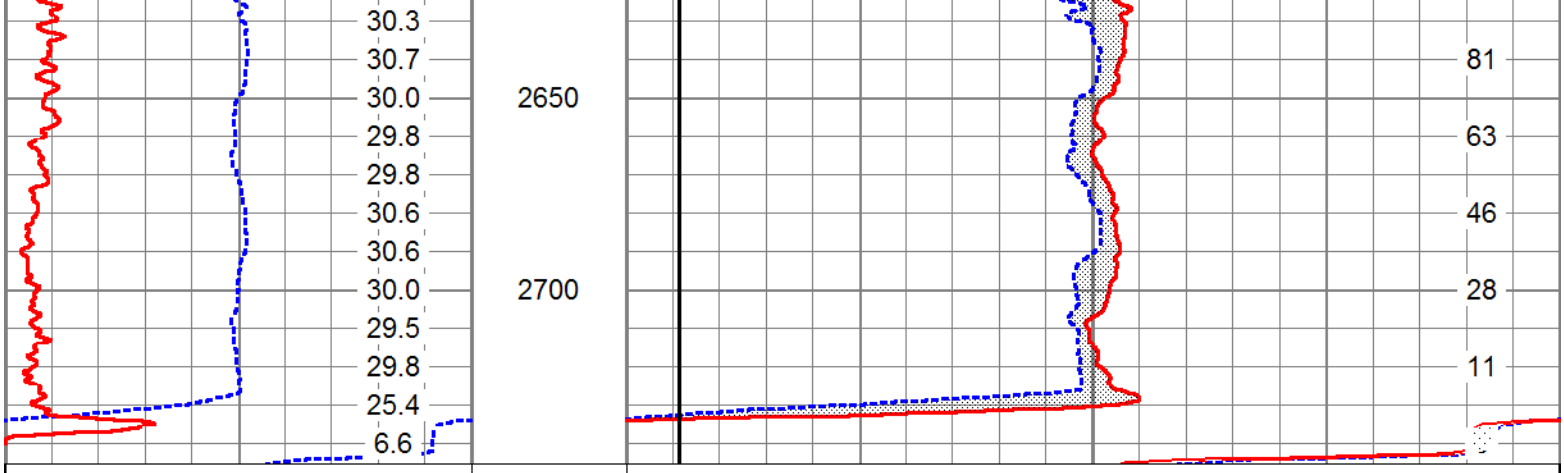
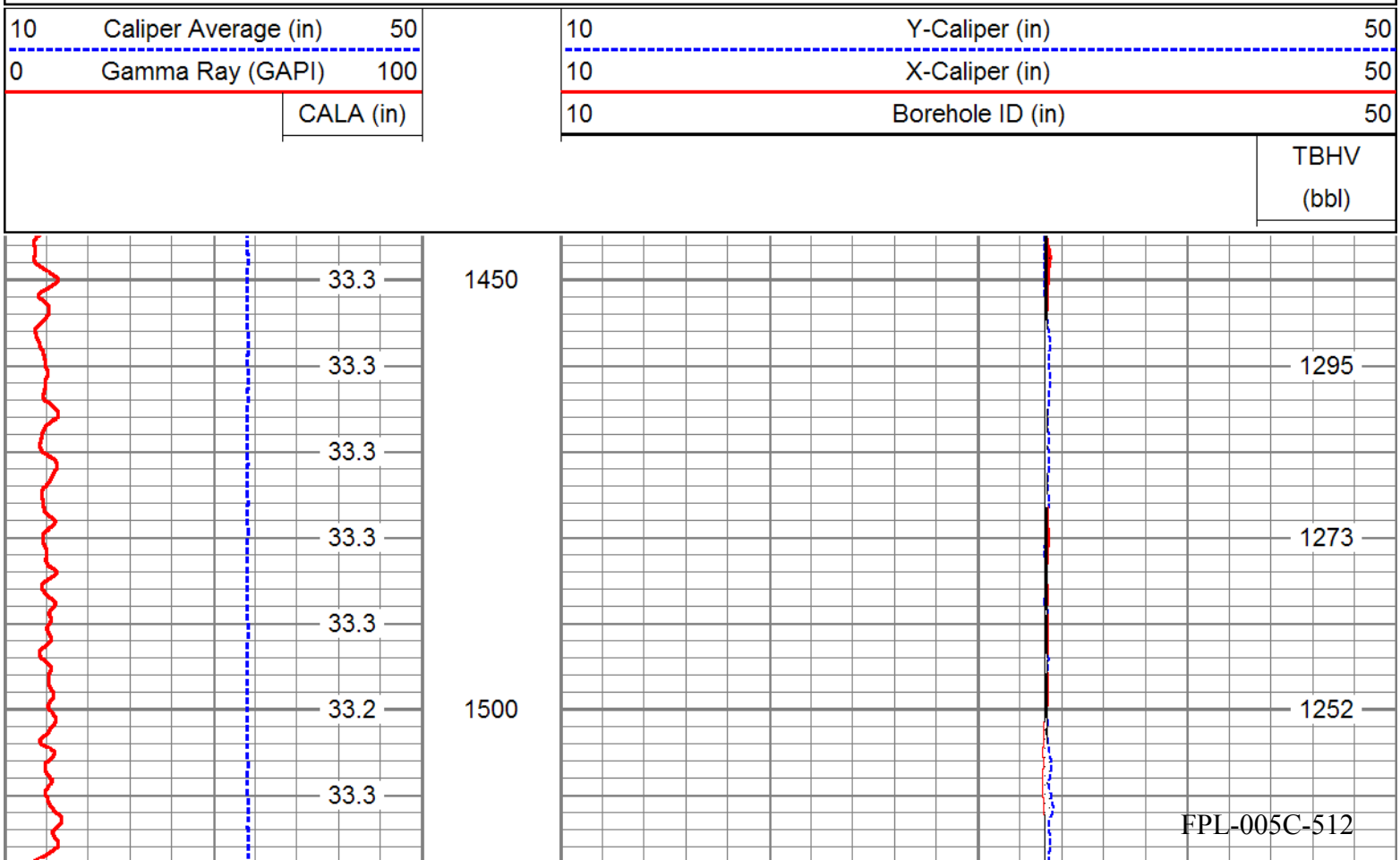
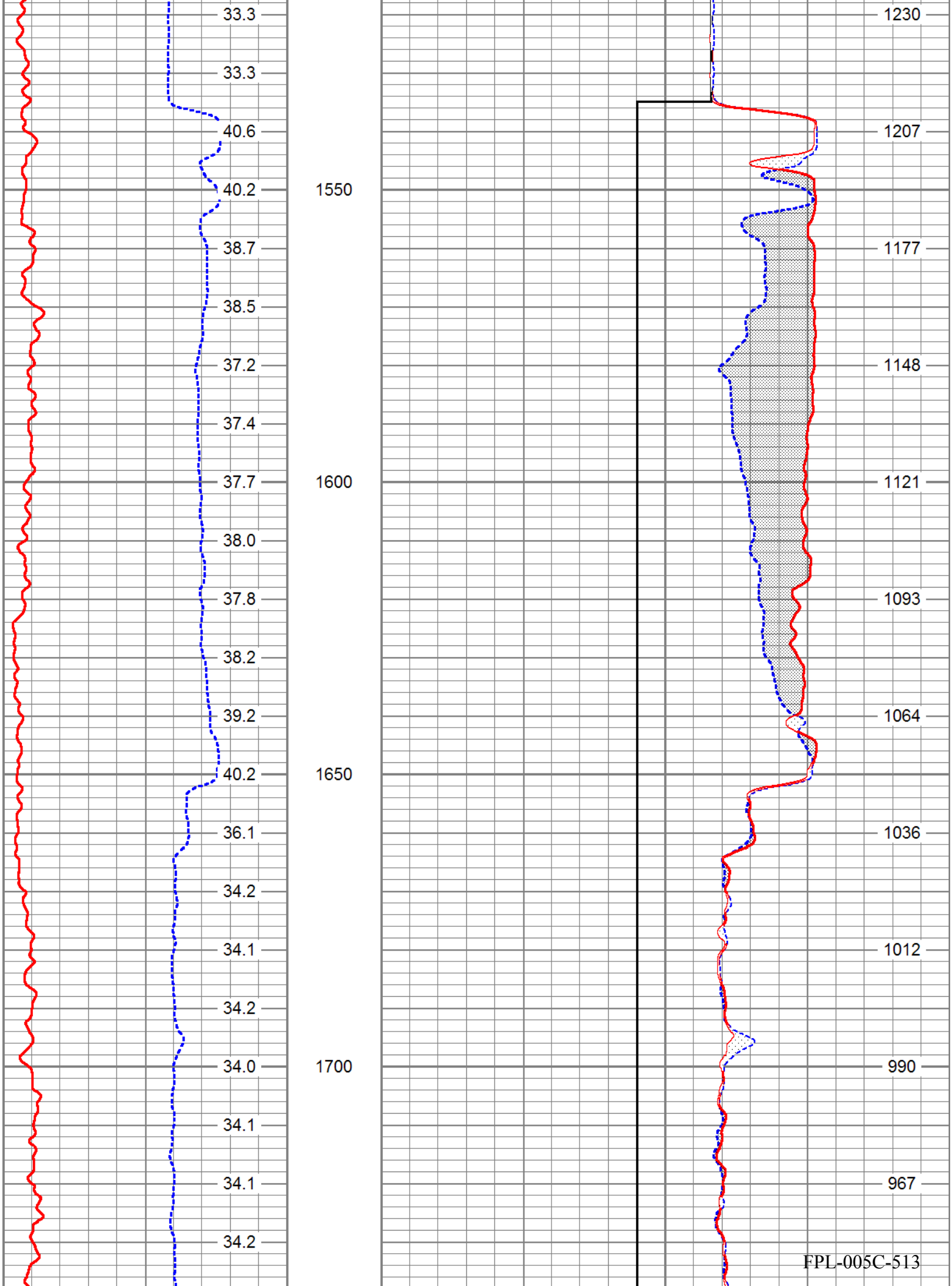
FPL-005C-511



MAIN PASS

Database File:	tpew1.db
Dataset Pathname:	XYCMP1
Presentation Format:	xyc
Dataset Creation:	Fri Jan 06 15:30:37 2012 by Calc Open-Cased 071220
Charted by:	Depth in Feet scaled 1:240

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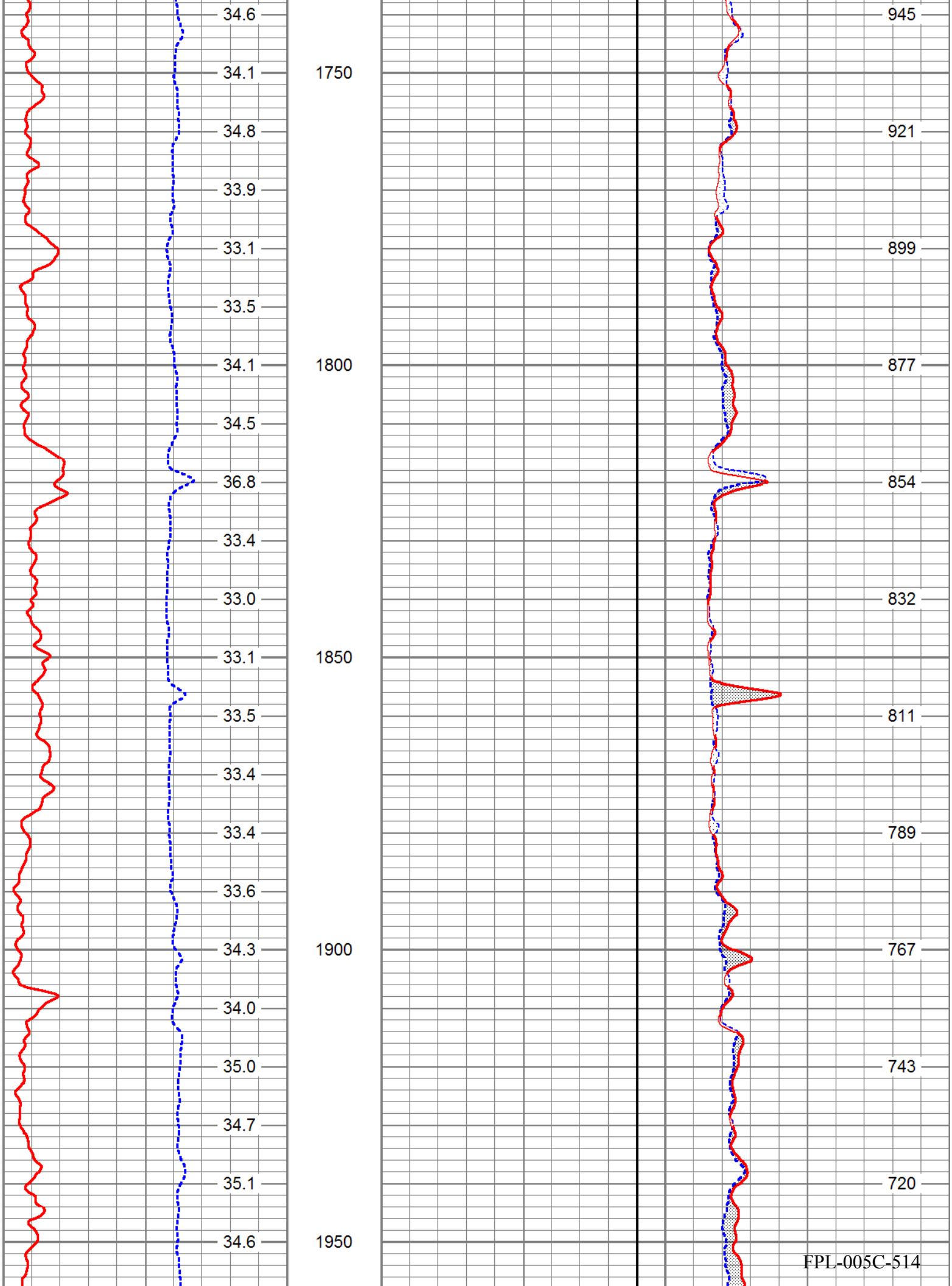
FPL-005C-513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33.1
33.5
33.4
33.4
33.6
34.3
34.0
35.0
34.7
35.1
34.6
1750
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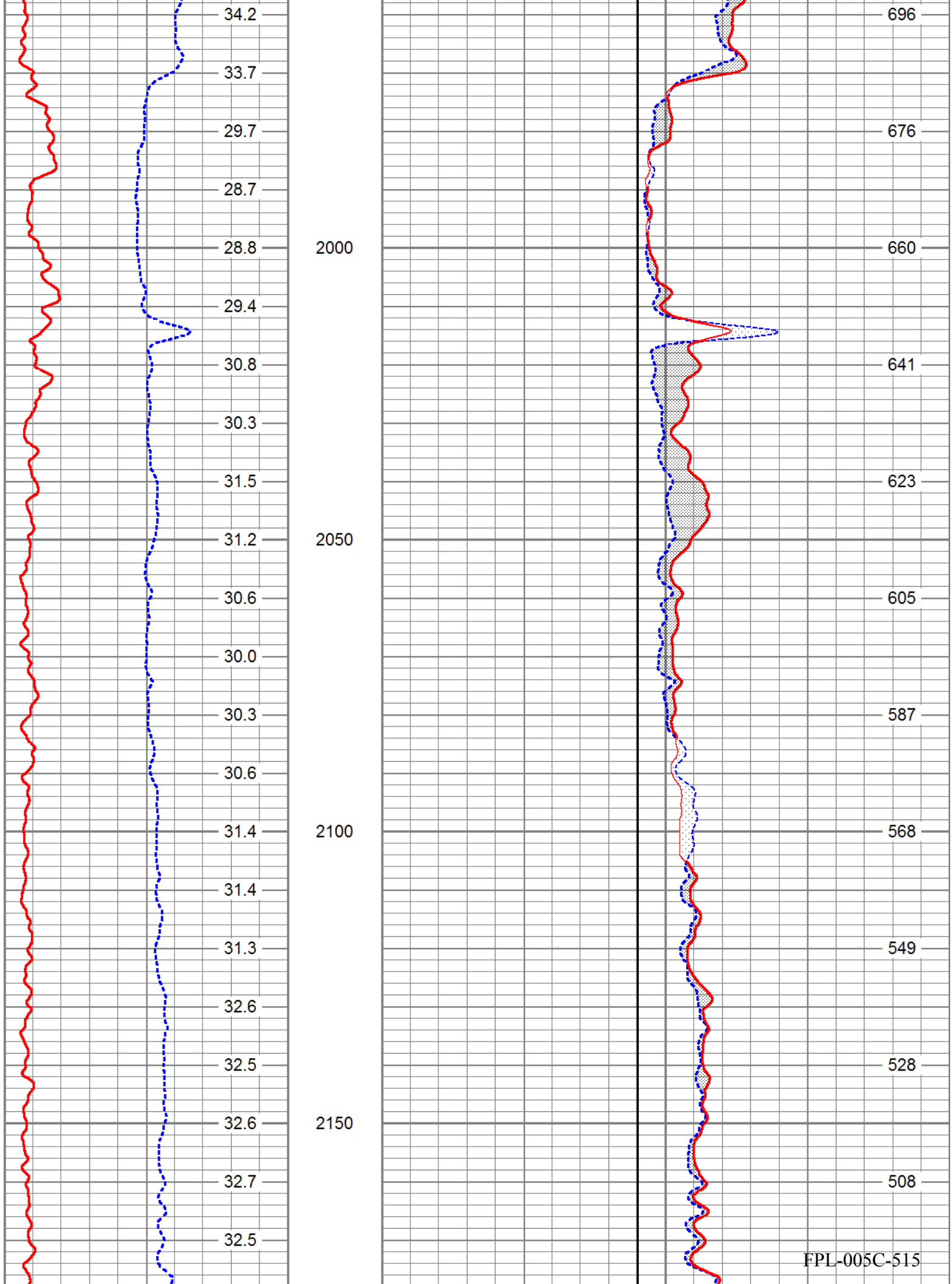
FPL-005C-514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31.5
31.2
2050
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30.3
30.6
31.4
2100
31.4
31.3
32.6
32.5
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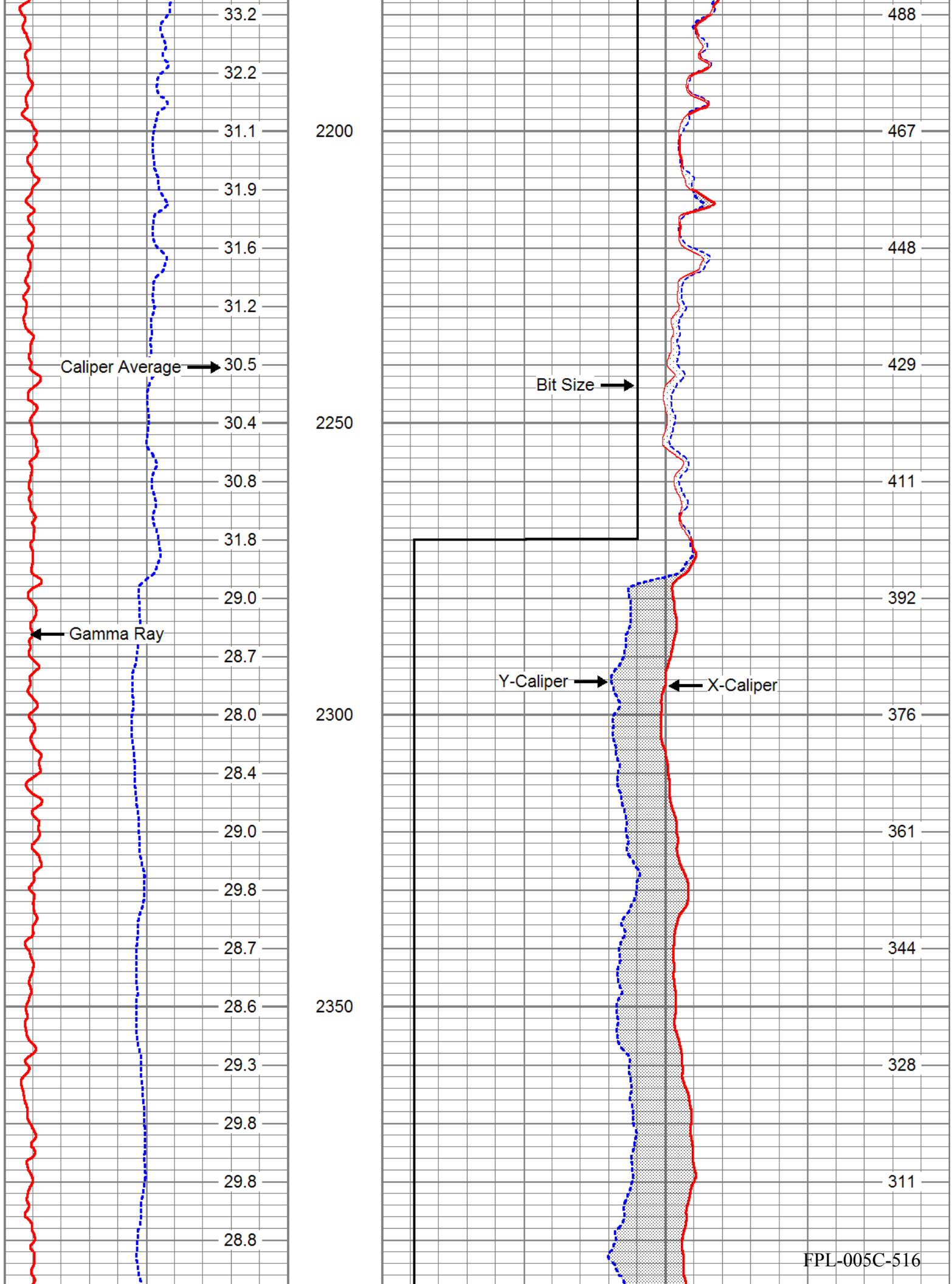
FPL-005C-515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31.6
31.2
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30.5
30.4
30.8
31.8
29.0
Gamma Ray
28.7
28.0
28.4
29.0
29.8
28.7
28.6
29.3
29.8
29.8
28.8
2200
2250
2300
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Bit Size
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Y-Caliper
X-Caliper
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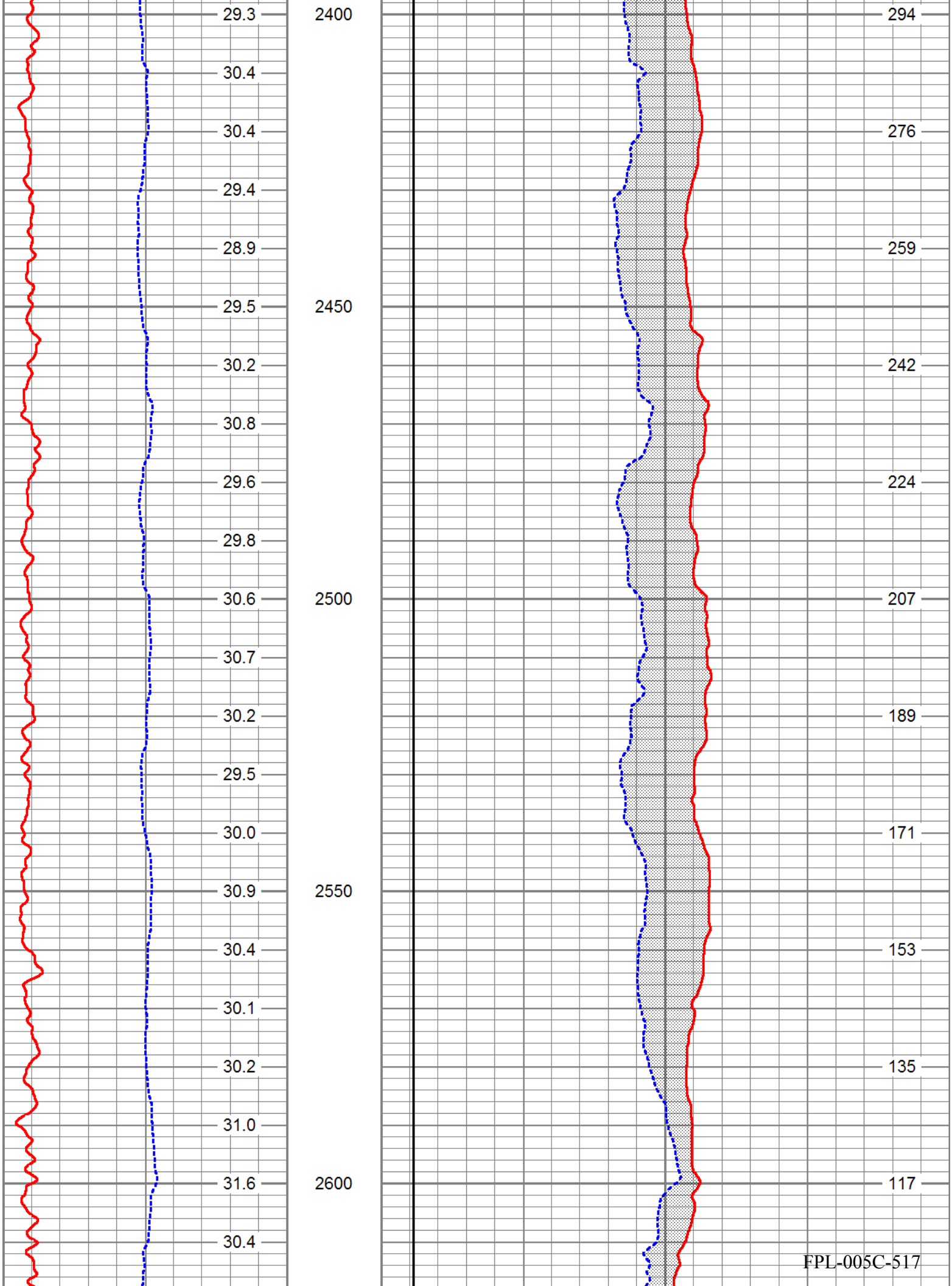
344
328
311
FPL-005C-516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30.7
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30.0
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30.4
30.1
30.2
31.0
31.6
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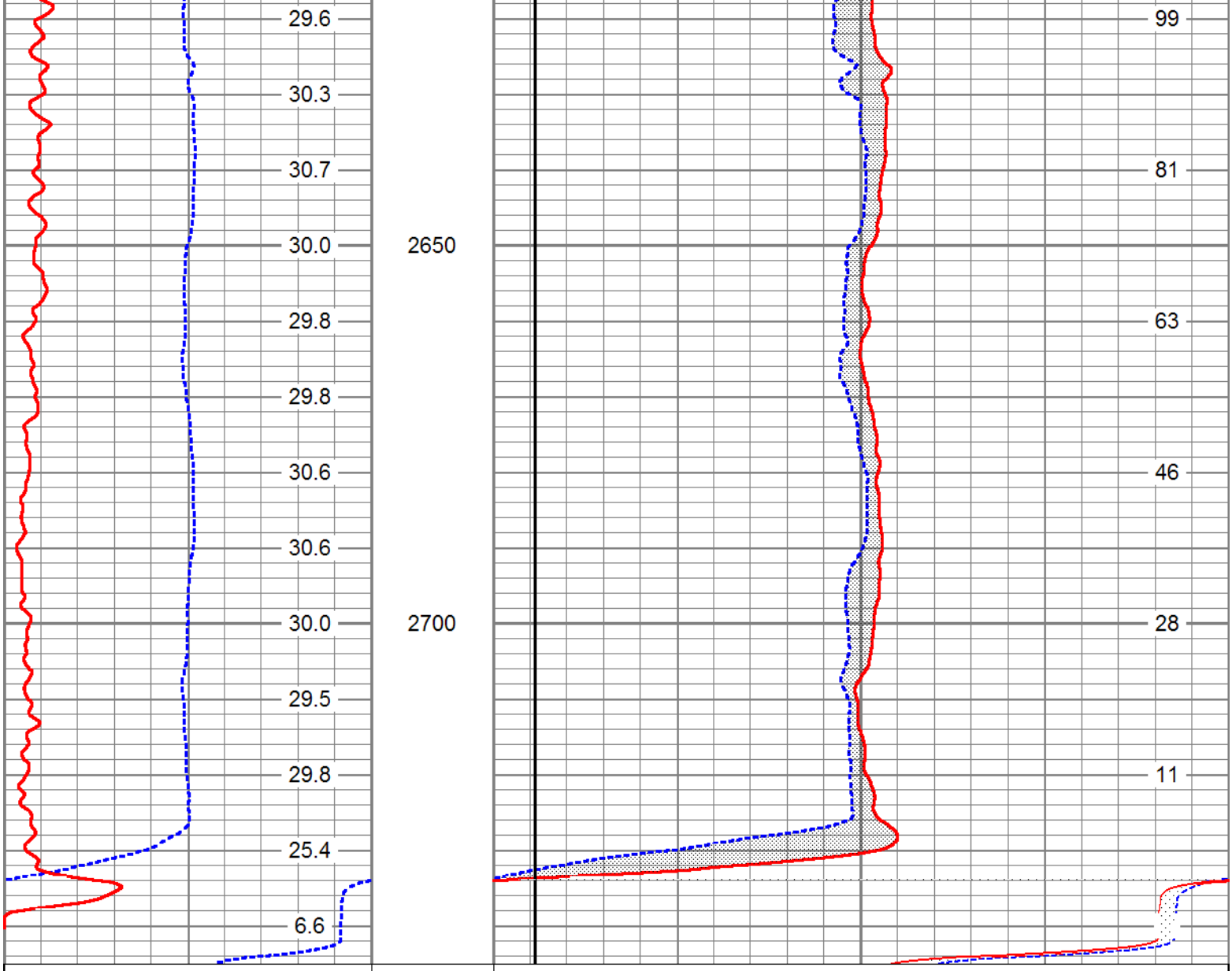
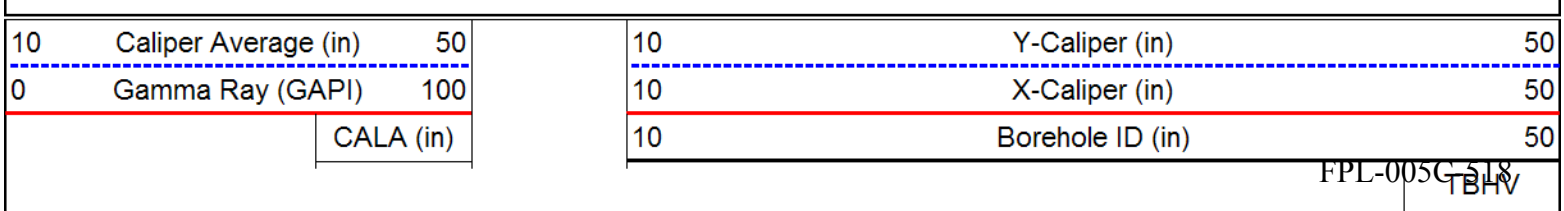
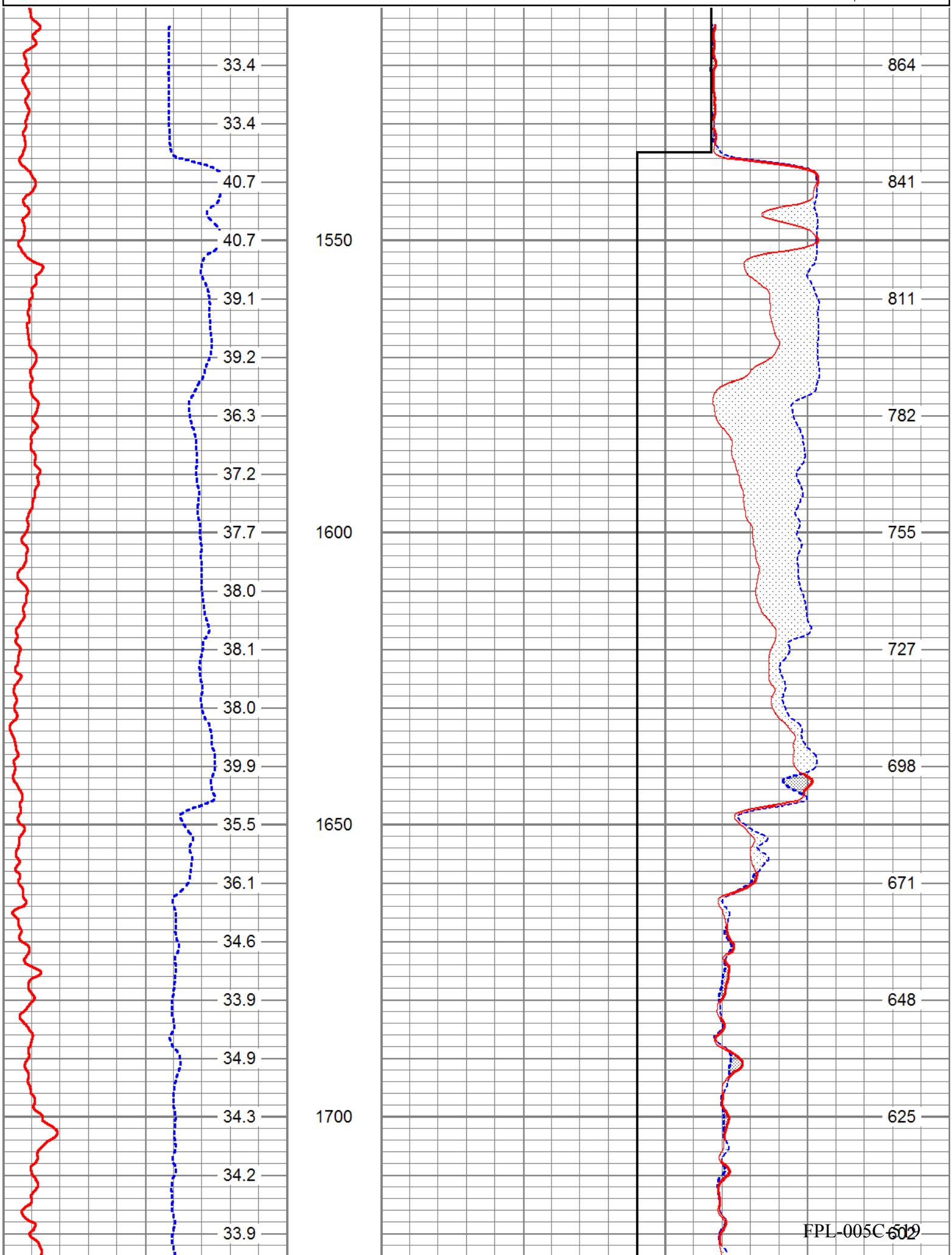
FPL-005C-517



REPEAT PASS

Database File: tpew1.db
Dataset Pathname: XYCRP
Presentation Format: xyc
Dataset Creation: Fri Jan 06 15:34:33 2012 by Log Open-Cased 071220
Charted by: Depth in Feet scaled 1:240




(bbl)
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37.7
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38.0
39.9
35.5
36.1
34.6
33.9
34.9
34.3
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671
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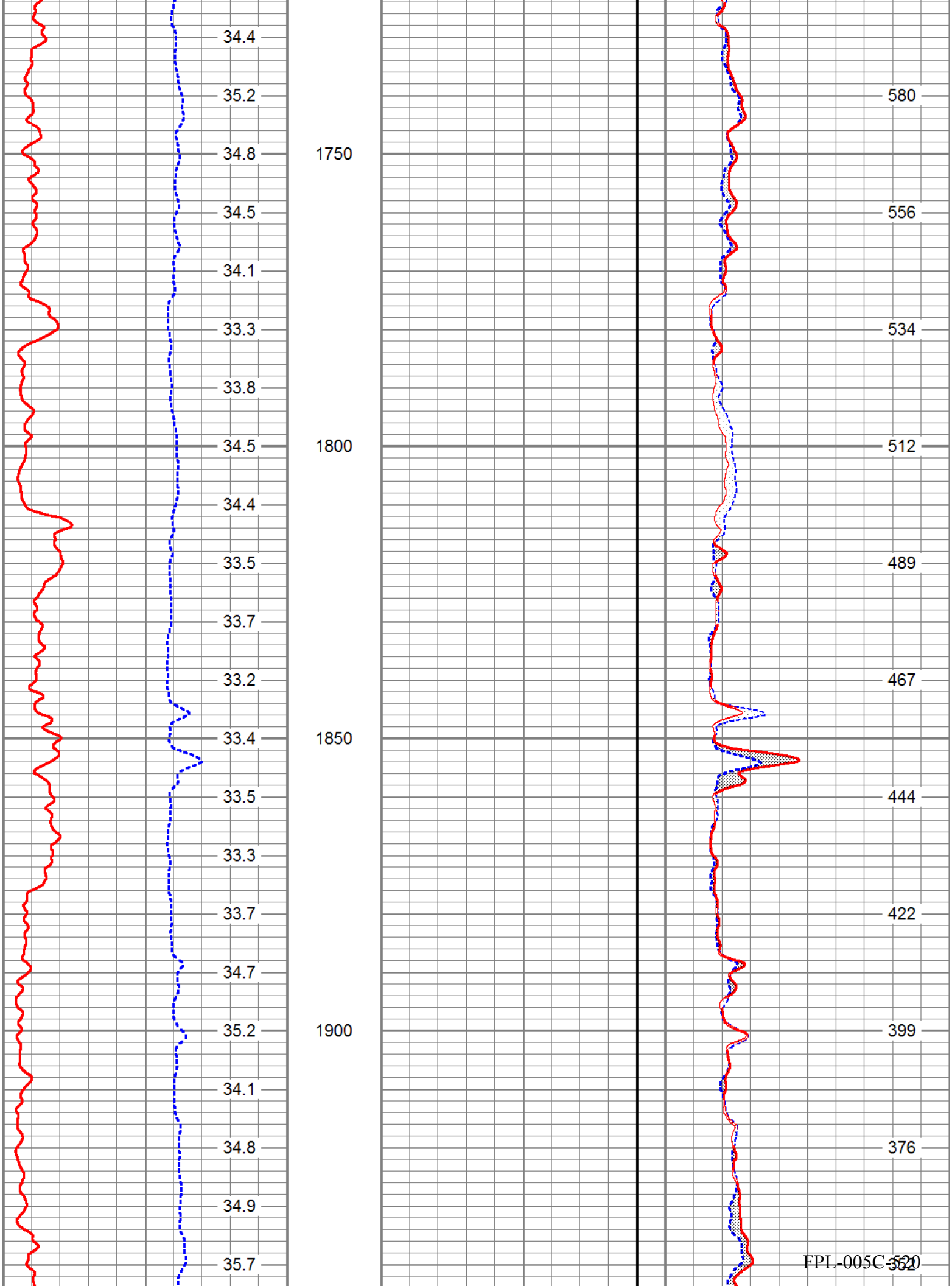
625
602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34.8
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34.5
34.1
33.3
33.8
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1800
34.4
33.5
33.7
33.2
33.4
1850
33.5
33.3
33.7
34.7
35.2
1900
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34.8
34.9
35.7
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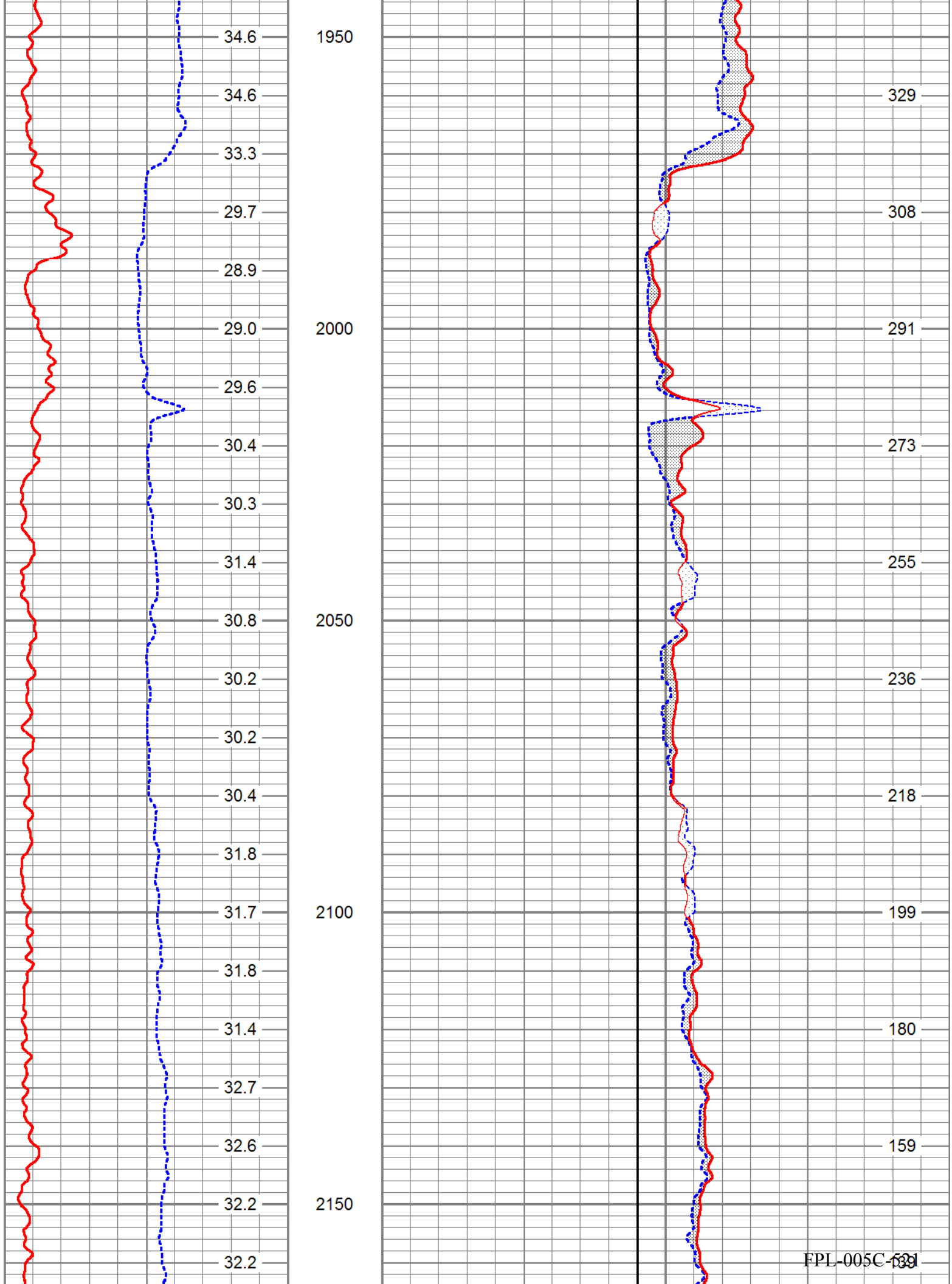
556
534
512
489
467
444
422
399
376
320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30.4
30.3
31.4
30.8
30.2
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31.8
31.7
31.8
31.4
32.7
32.6
32.2
32.2
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2000
2050
2100
2150
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308
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273
255
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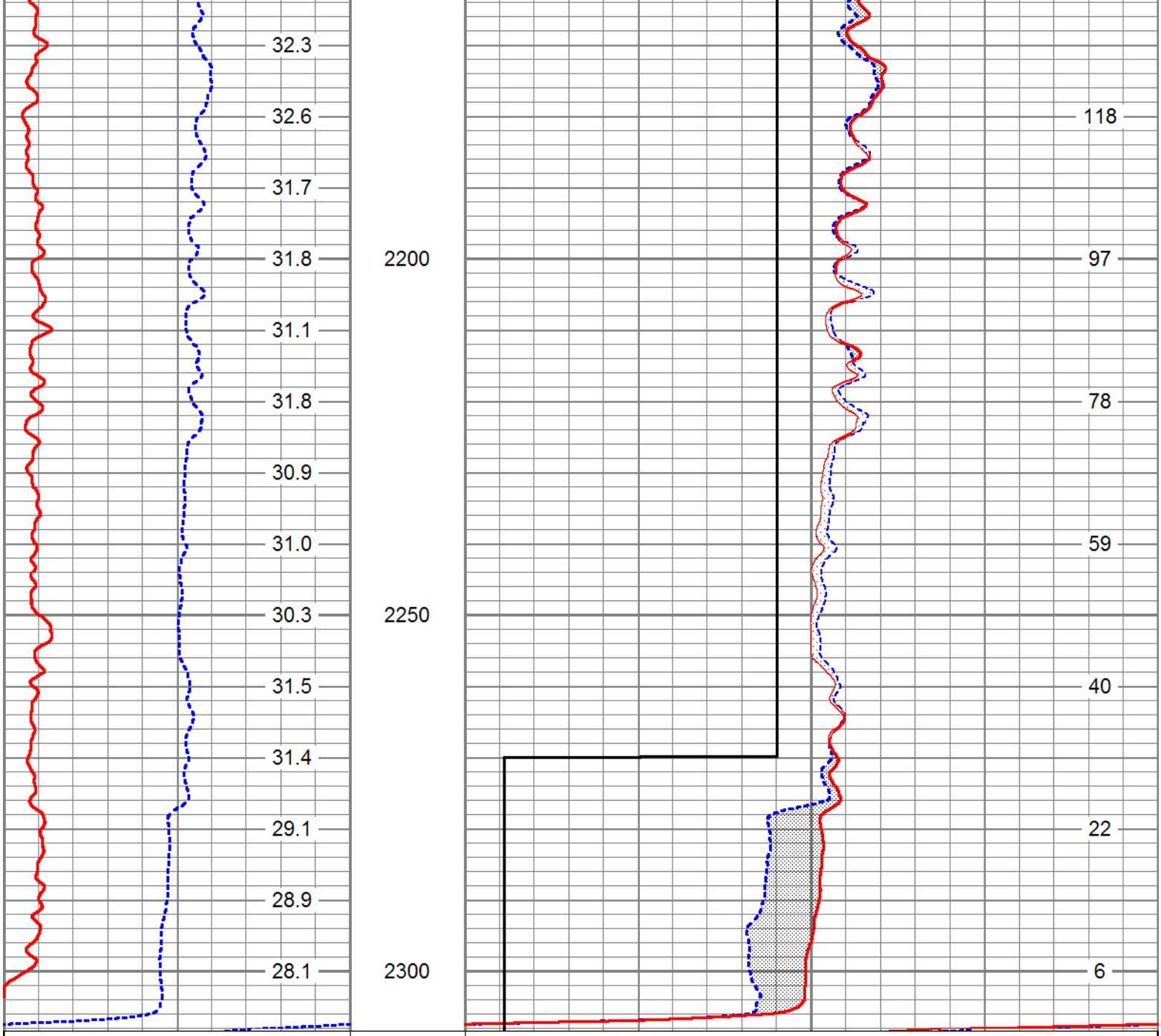
218
199
180
159
139



Calibration Report

Database File: tpew1.db
Dataset Pathname: XYCRP
Dataset Creation: Fri Jan 06 15:34:33 2012 by Log Open-Cased 071220

XY Caliper Calibration Report

Serial Number/Model: SDSDEMO-XY
Performed: Fri Jan 06 15:32:00 2012

Ring	X Caliper	Y Caliper
1: 10 in	395 cps	373.152 cps

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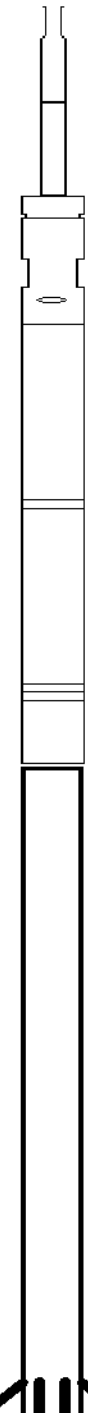
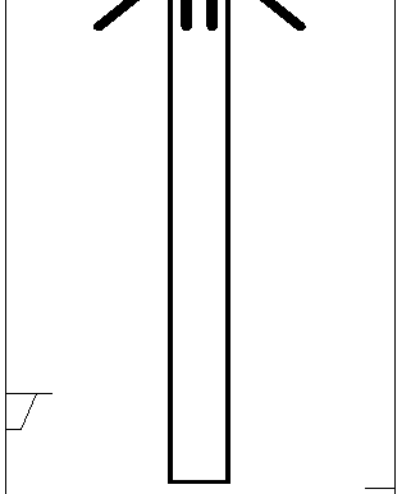
2:	12	in	436.6	cps	417.6	cps
3:	20	in	539.243	cps	531.892	cps
4:	23.25	in	606	cps	585	cps
5:	30	in	709.565	cps	699.891	cps
6:	33.25	in	780	cps	770	cps

Gamma Ray Calibration Report

Serial Number:	SDS	
Tool Model:	SDSGR	
Performed:	Fri Jan 06 14:25:33 2012	
Calibrator Value:	120.0	GAPI
Background Reading:	117.8	cps
Calibrator Reading:	585.1	cps
Sensitivity:	0.2568	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-SDSCHD (SDS) Cable Head	1.00	1.50	5.00
			GR-SDSGR (SDS) GR for Testing	3.00	1.69	20.00
GR	7.00					
			XYC-XY (SDSDEMO) LGL_XYC_MM	6.00	3.50	100.00

XCAL YCAL	0.50 0.50					

Dataset:	tpew1.db: field/well/run1/XYCRP
Total Length:	10.00 ft
Total Weight:	125.00 lb
O.D.	3.50 in

X-Y CALIPER GAMMA RAY LOG

Company	LAYNE CHRISTENSEN COMPANY
Well	TURKEY POINT EW-1
Field	FLORIDA CITY
County	MIAMI-DADE
State	FLORIDA

Company	LAYNE CHRISTENSEN COMPANY		
Well	TURKEY POINT EW-1		
Field	FLORIDA CITY		
County	MIAMI-DADE State FLORIDA		
Location	FPL TURKEY POINT POWER PLANT LAT: 25 25'19"N LONG: 80 20' 08" W MC NABB HYDROGEOLOGIC CONSULTING, INC.	Other Services	NONE
Permanent Datum	GL Elevation	Elevation	K.B.
Log Measured From	GL		D.F.
Drilling Measured From	GL		G.L.

Date	15-JAN-2012
Run Number	ELEVEN
Depth Driller	3230'
Depth Logger	2900'
Bottom Logged Interval	2900'
Top Log Interval	CASING
Open Hole Size	28"
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	SURFACE
Time Well Ready	0000
Time Logger on Bottom	0000
Equipment Number	VA-202
Location	JUIPTER
Recorded By	LEE
Witnessed By	M. CLASEN

Borehole Record

Run Number	Bit	From	To
ELEVEN	28"	CASING	2900'

Borehole Record

Run Number	Bit	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	34"	.375 W.T	SURFACE	1535'
Prot. String				
Production String				
Tubing				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

MAIN PASS

FPL-005C-525

Database File:	tpew1.db
Dataset Pathname:	run2/XYCMP
Presentation Format:	xyc
Dataset Creation:	Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by:	Depth in Feet scaled 1:1200

10 Caliper Average (in) 50

0 Gamma 200

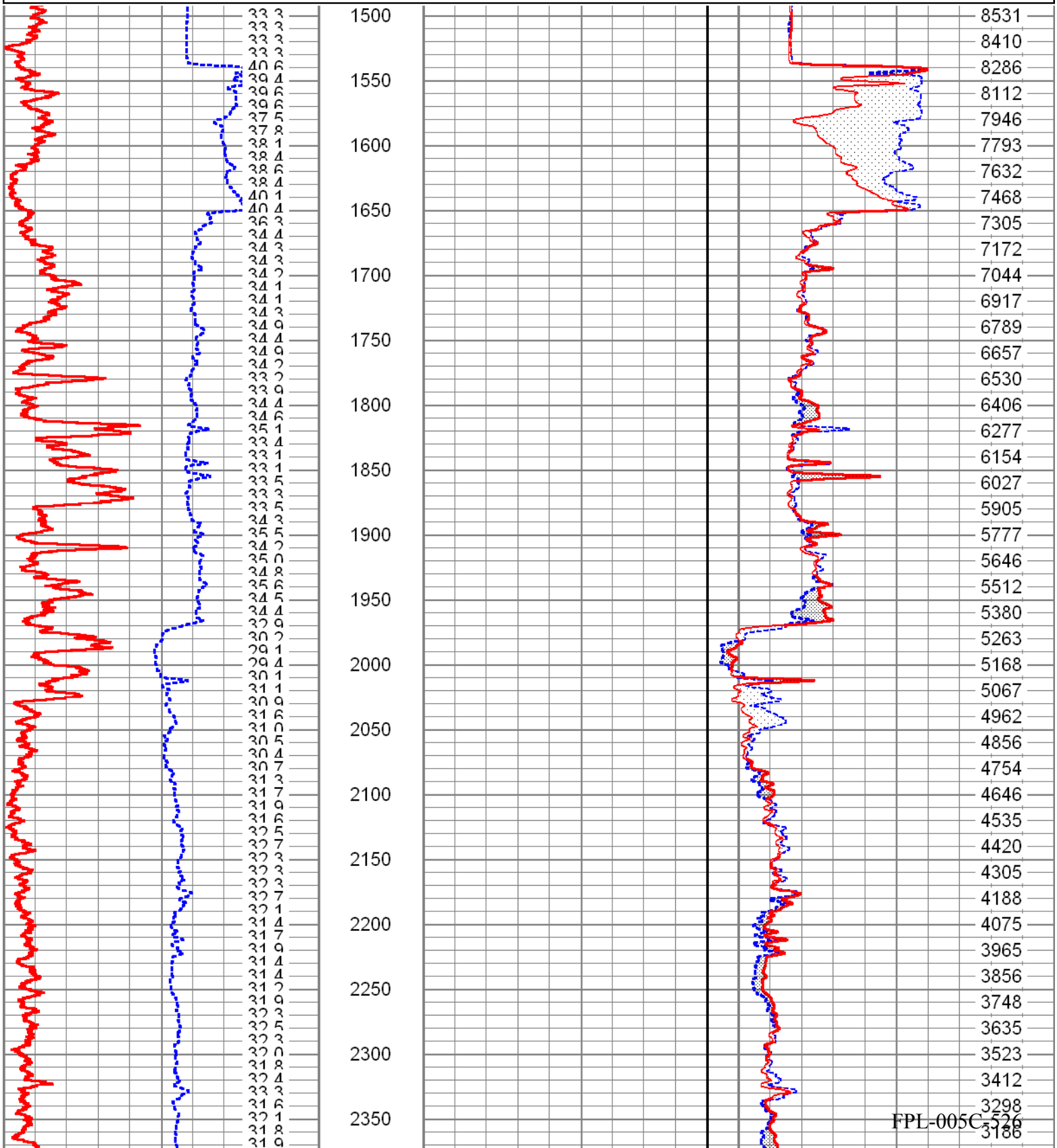
CALA (in)

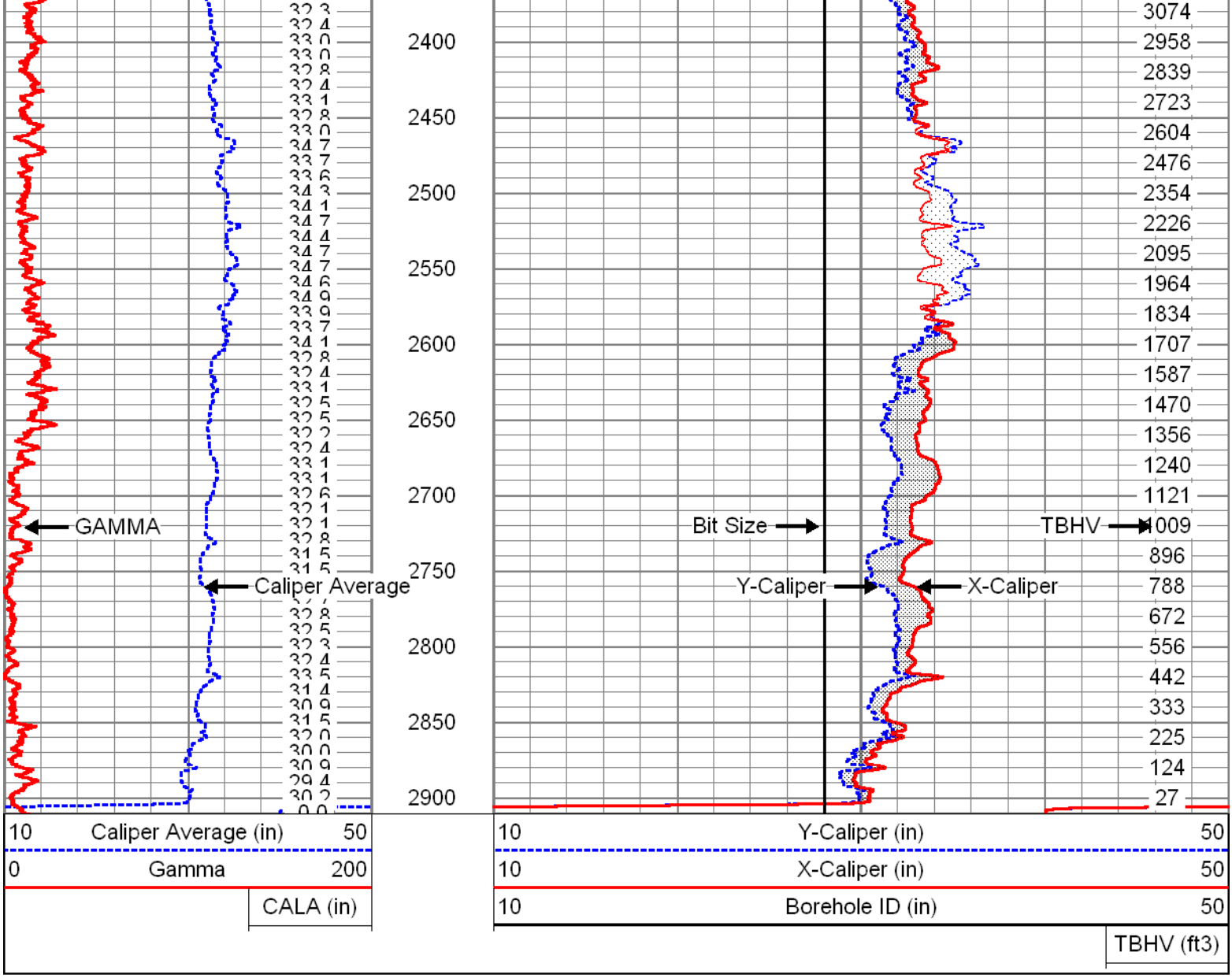
10 Y-Caliper (in) 50

10 X-Caliper (in) 50

10 Borehole ID (in) 50

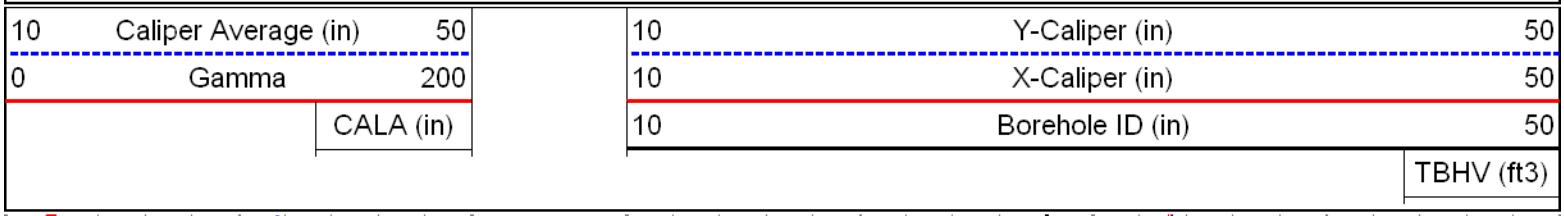
TBHV (ft3)

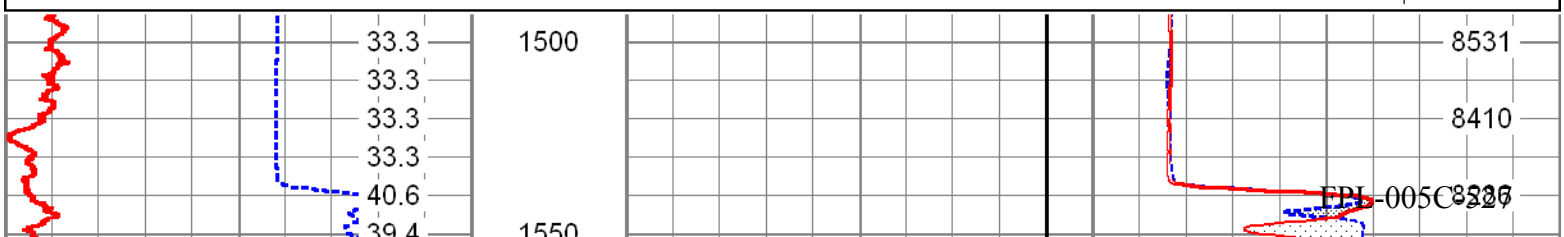


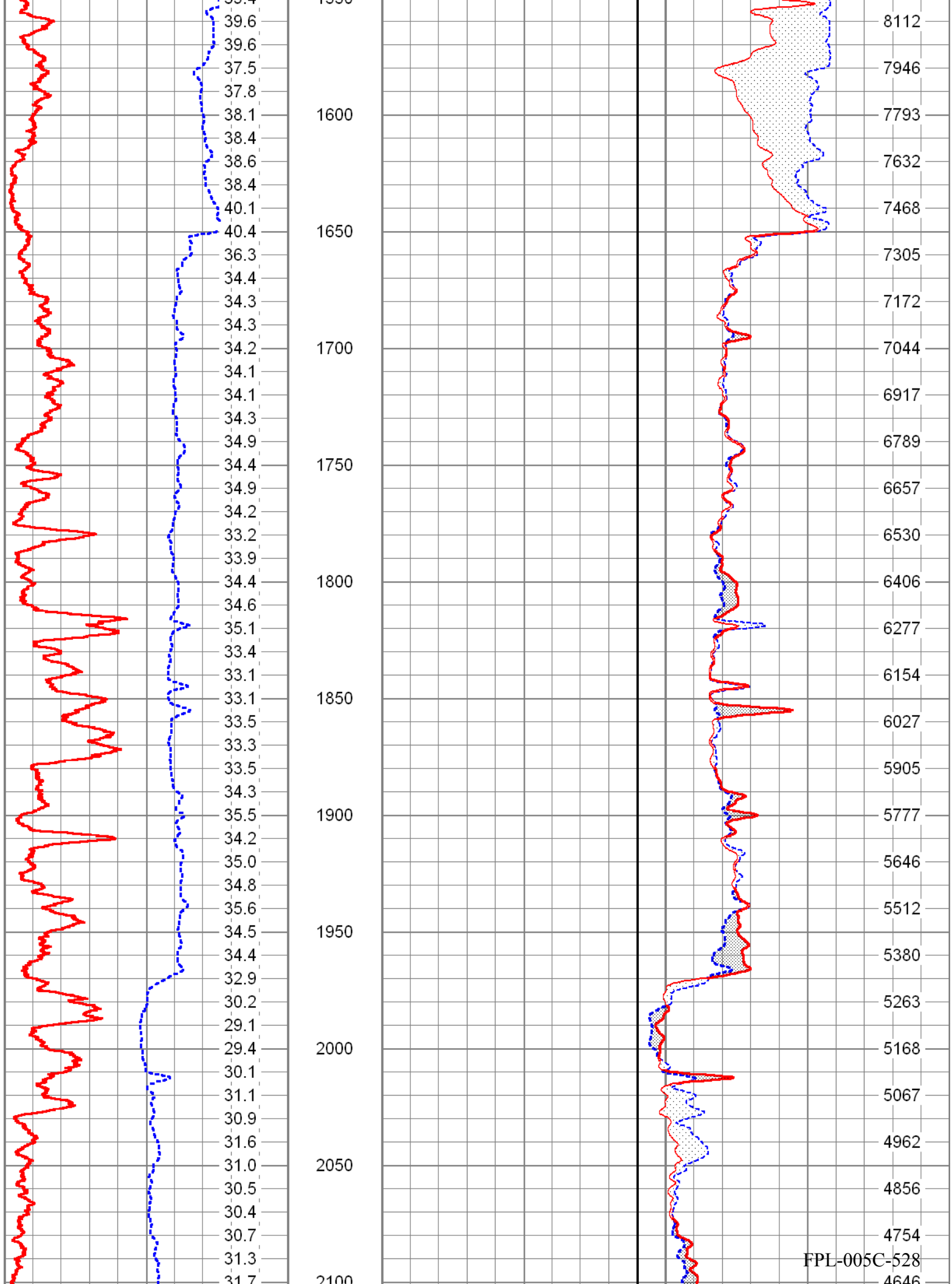


MAIN PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Presentation Format: xyc
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:600



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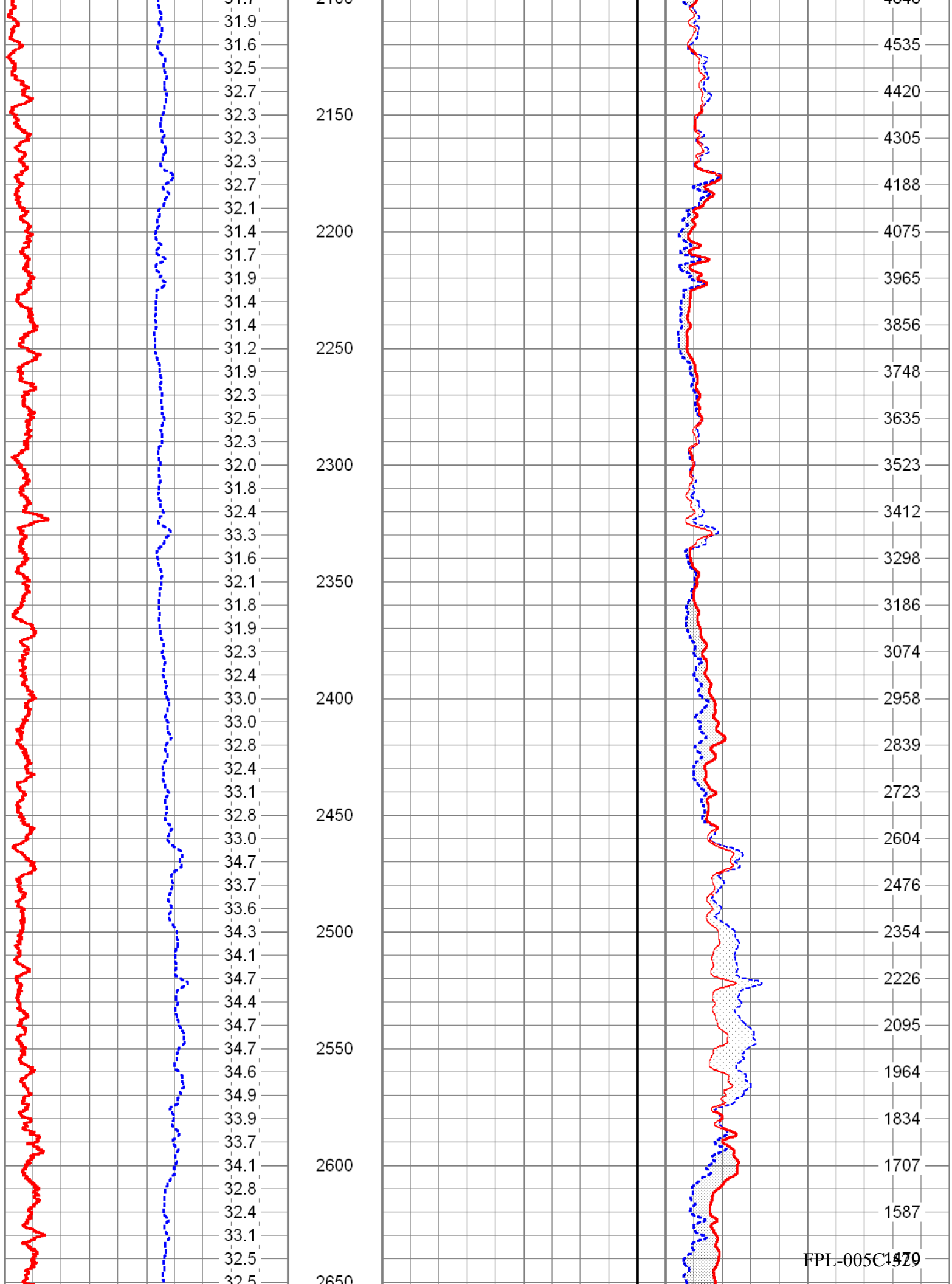
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32.4
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3965
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3635
3523
3412
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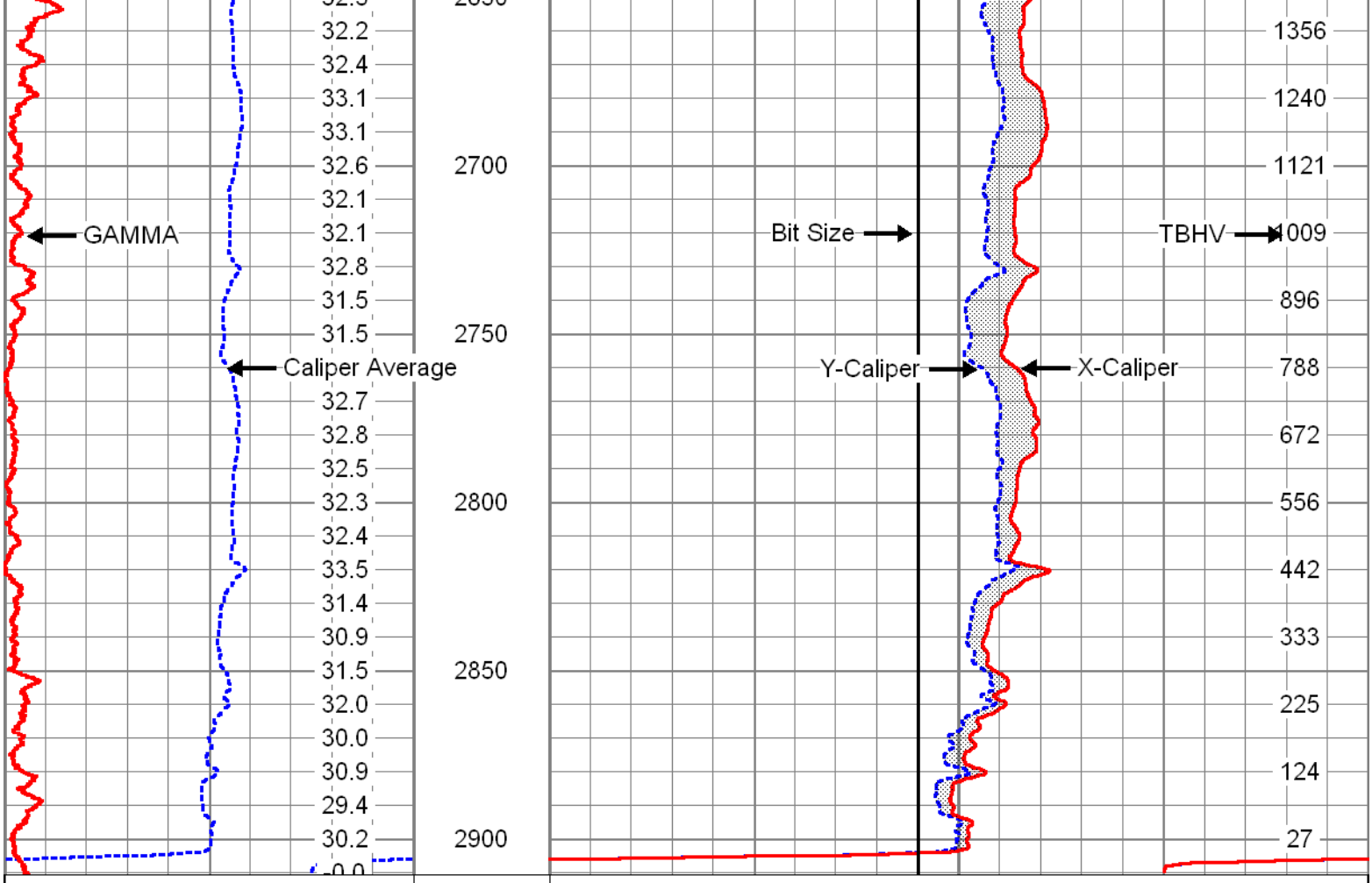
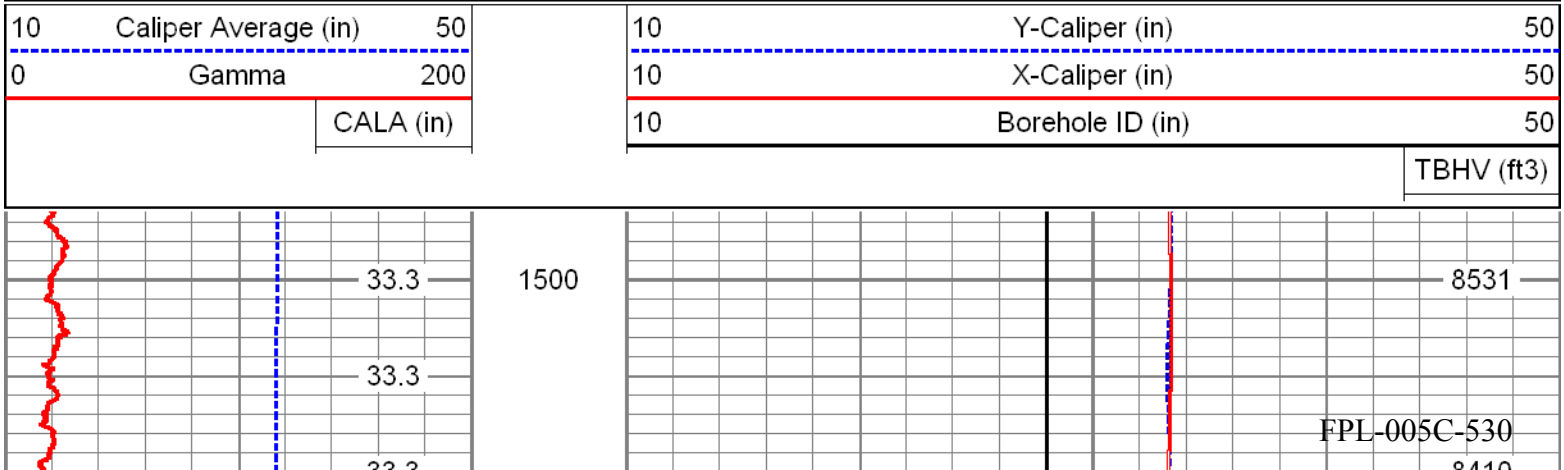
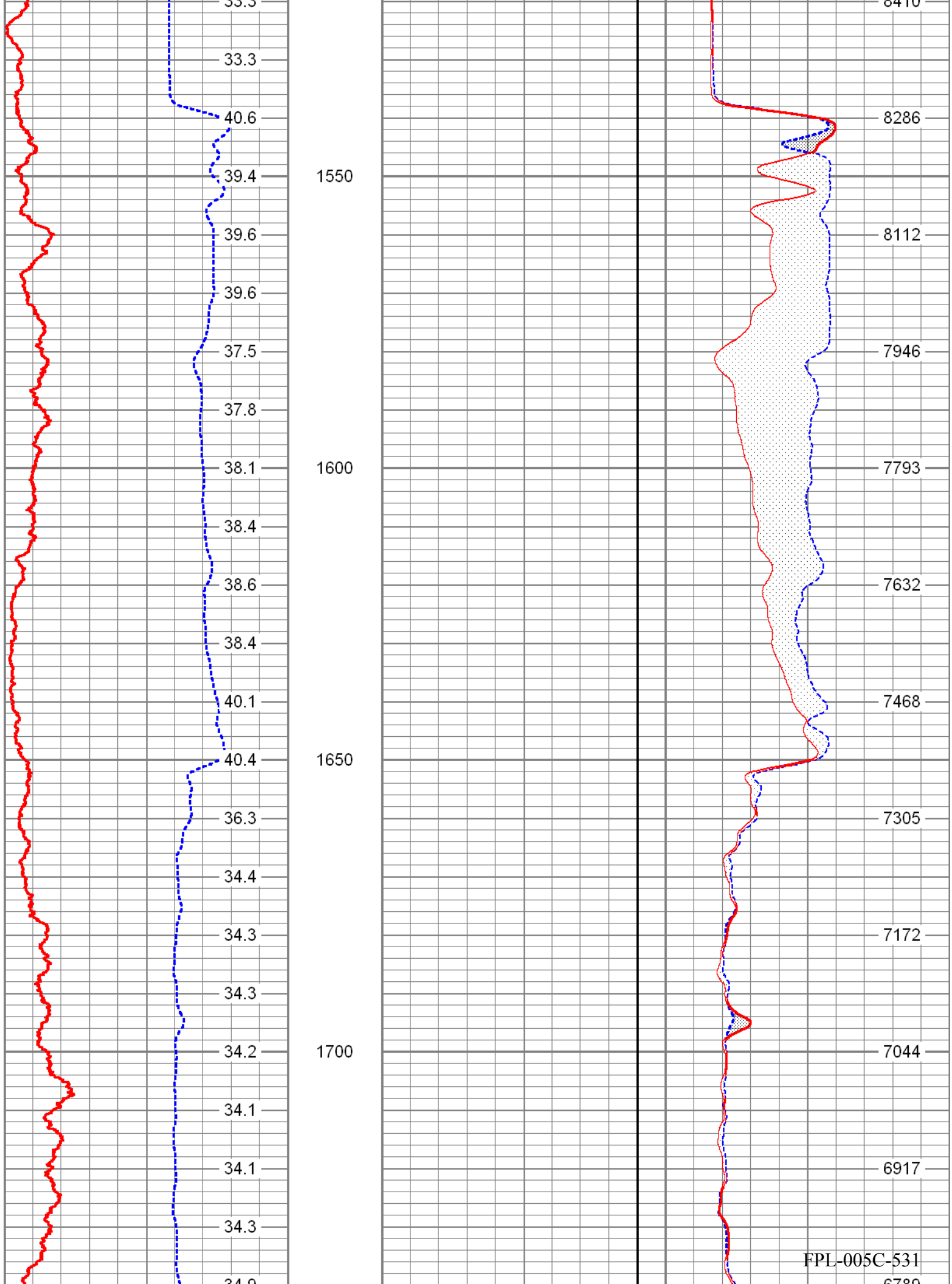
1479



MAIN PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Presentation Format: xyc
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:240

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1600
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40.4
1650
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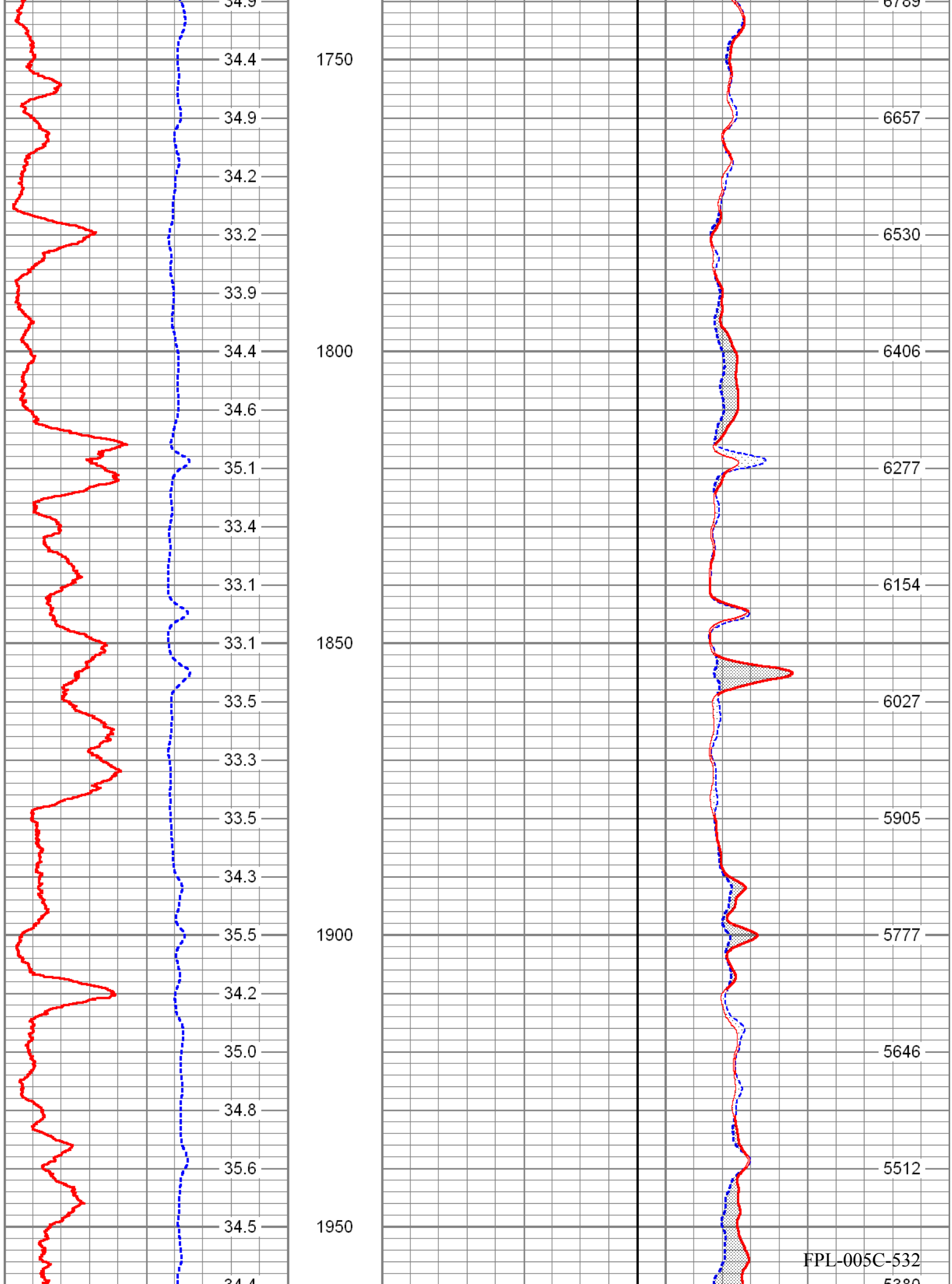
FPL-005C-531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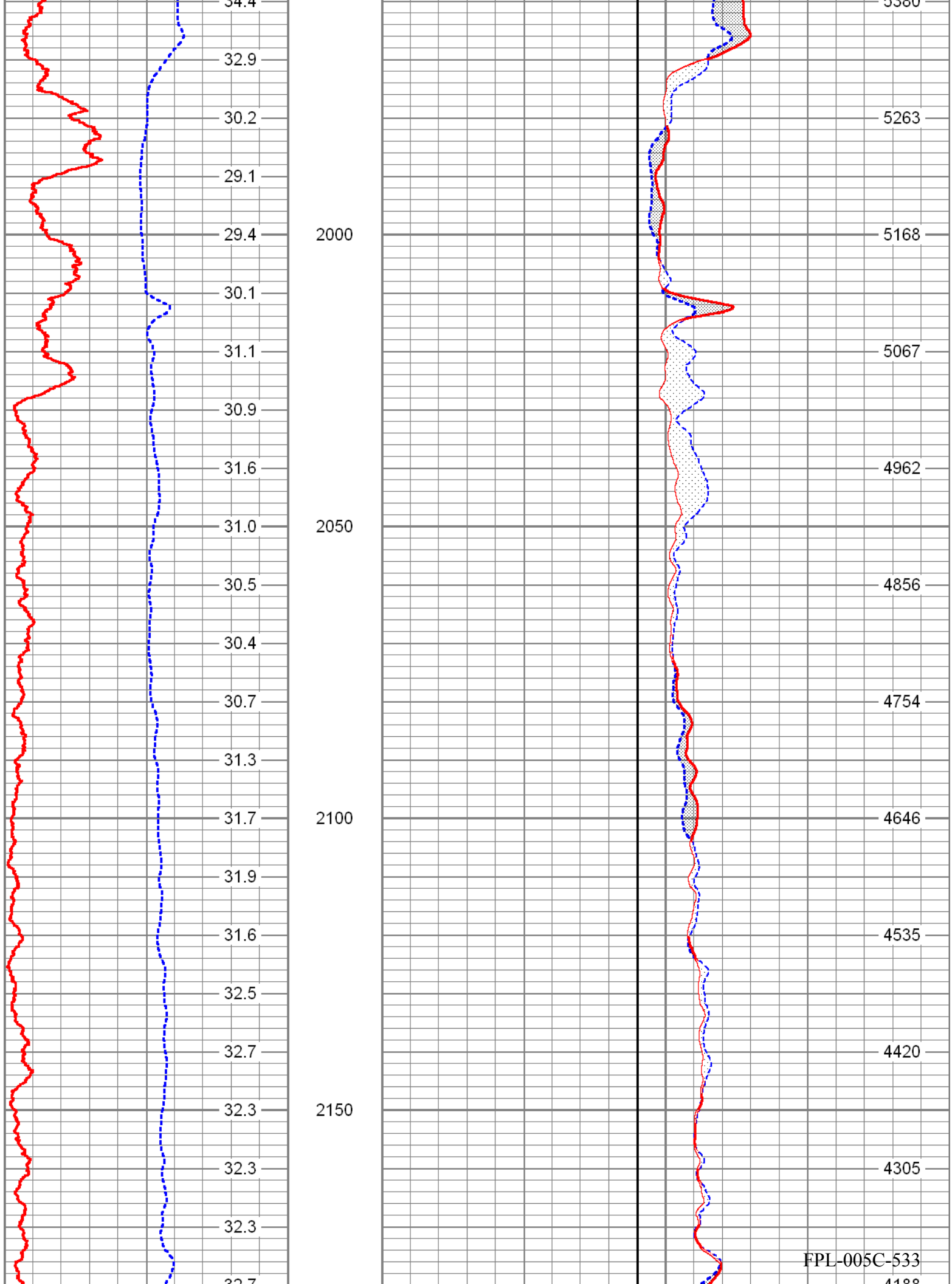
FPL-005C-532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30.1
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30.9
31.6
31.0
2050
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30.4
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31.3
31.7
2100
31.9
31.6
32.5
32.7
32.3
2150
32.3
32.3
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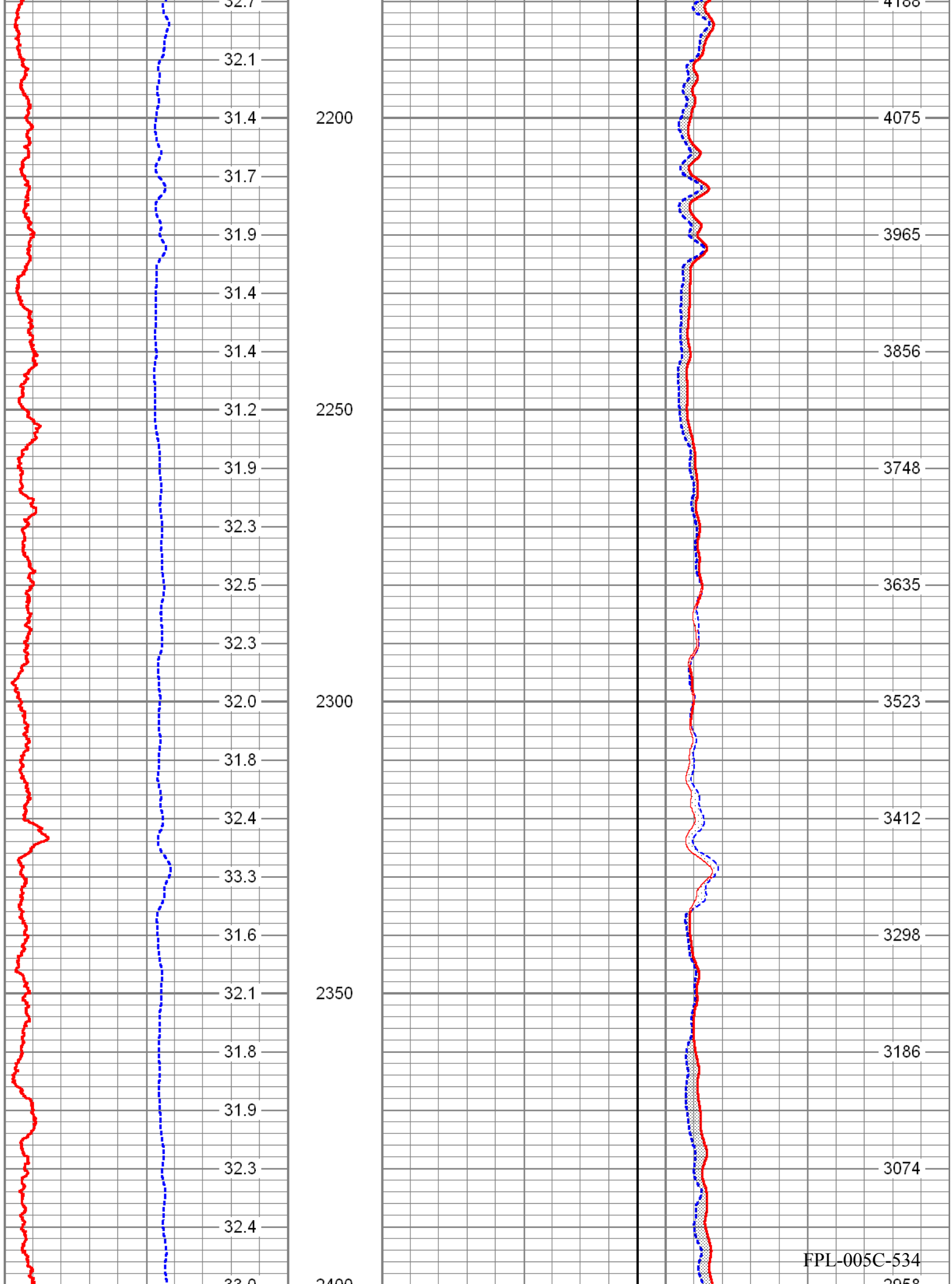
FPL-005C-533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32.4
33.3
31.6
32.1
31.8
31.9
32.3
32.4
2200
2250
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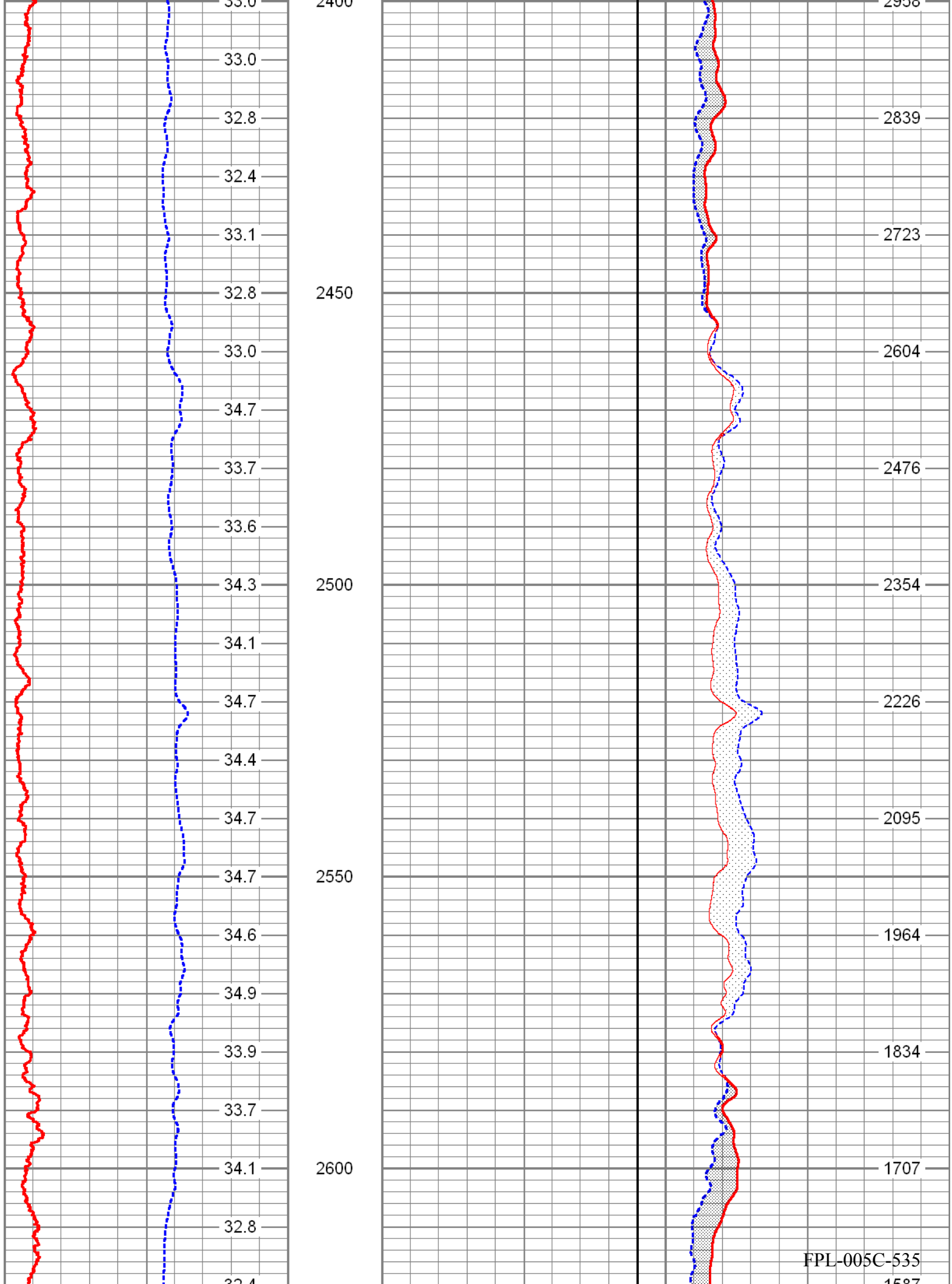
FPL-005C-534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33.7
34.1
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2095
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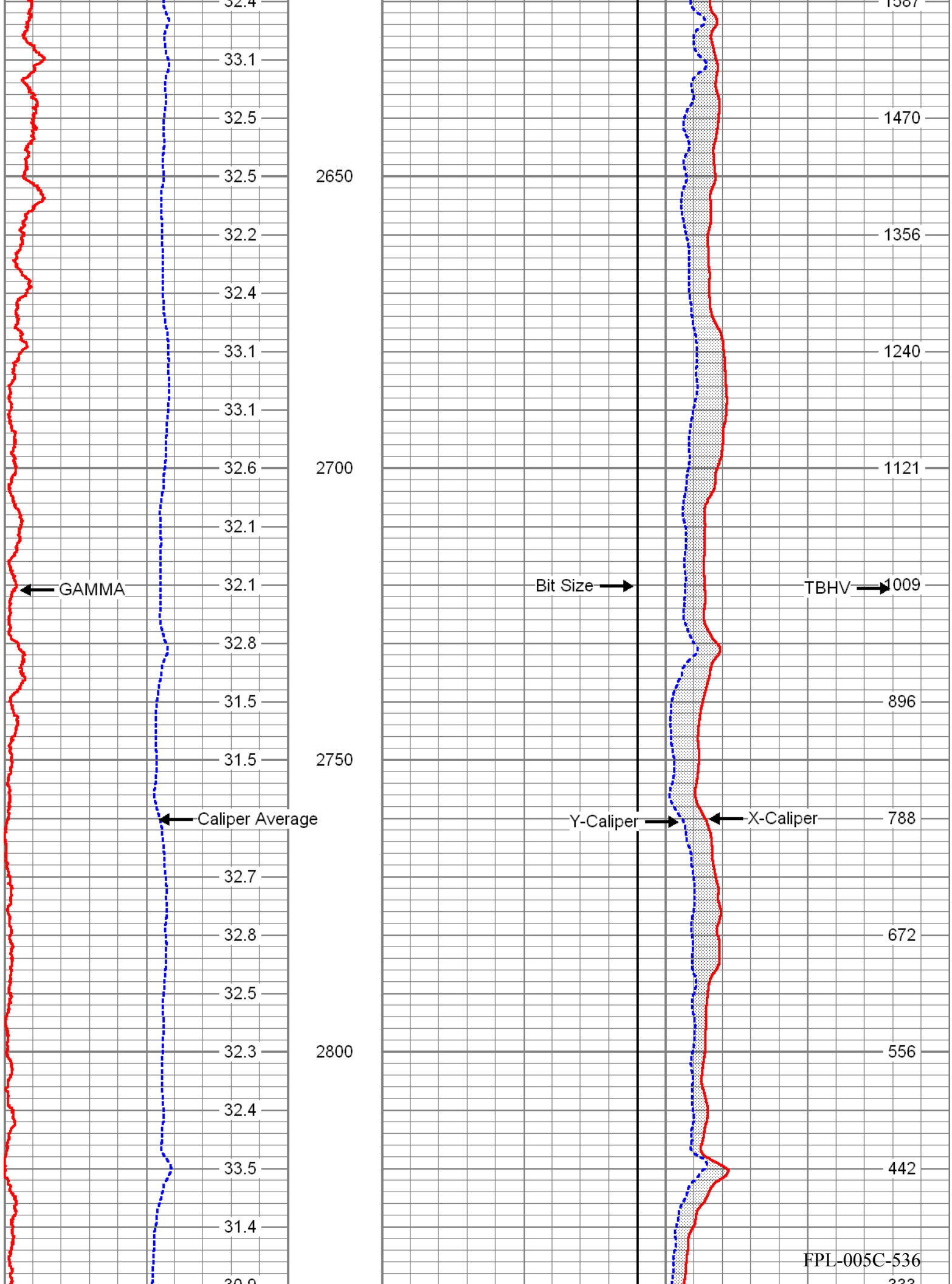
1707
FPL-005C-535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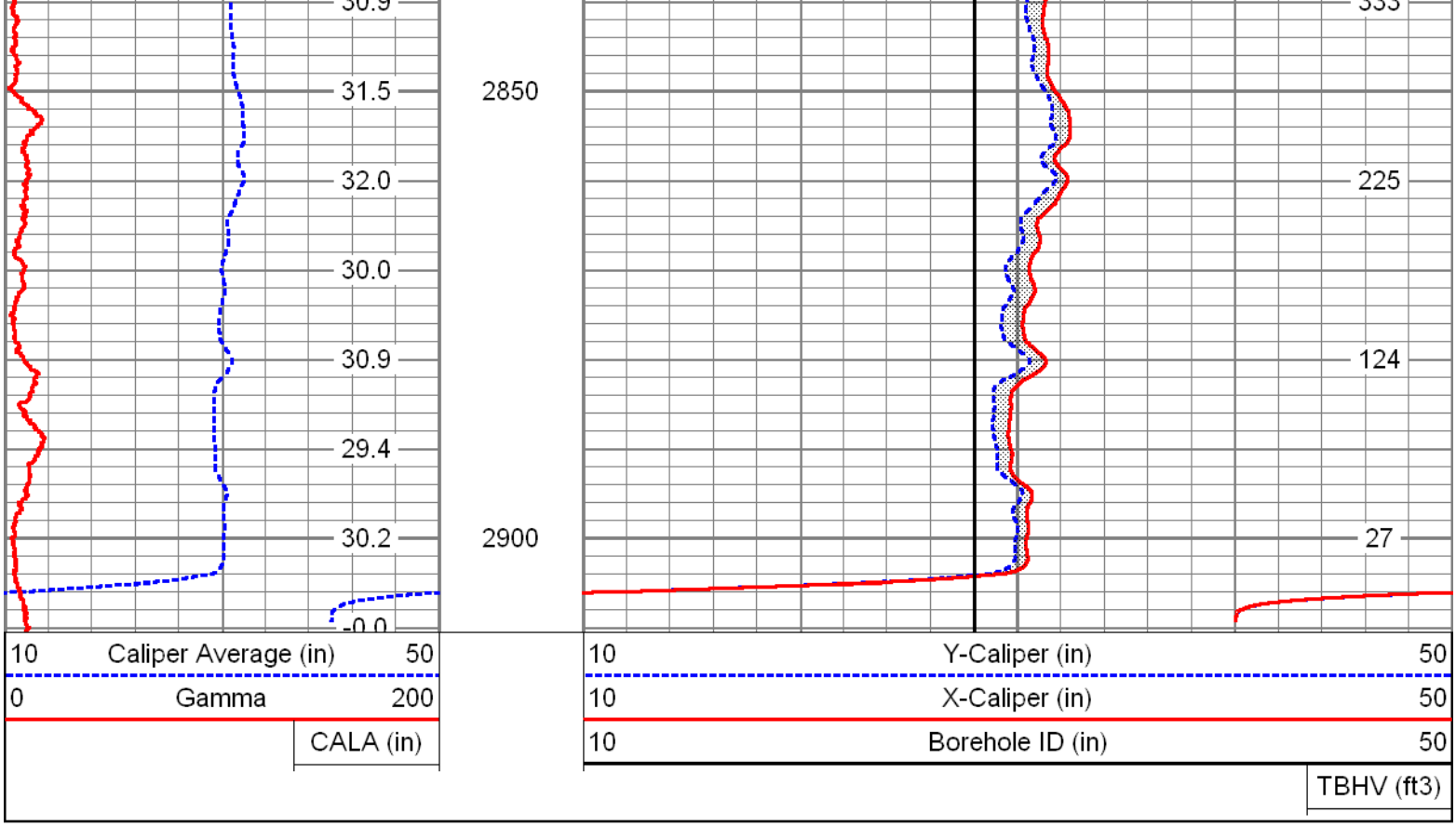
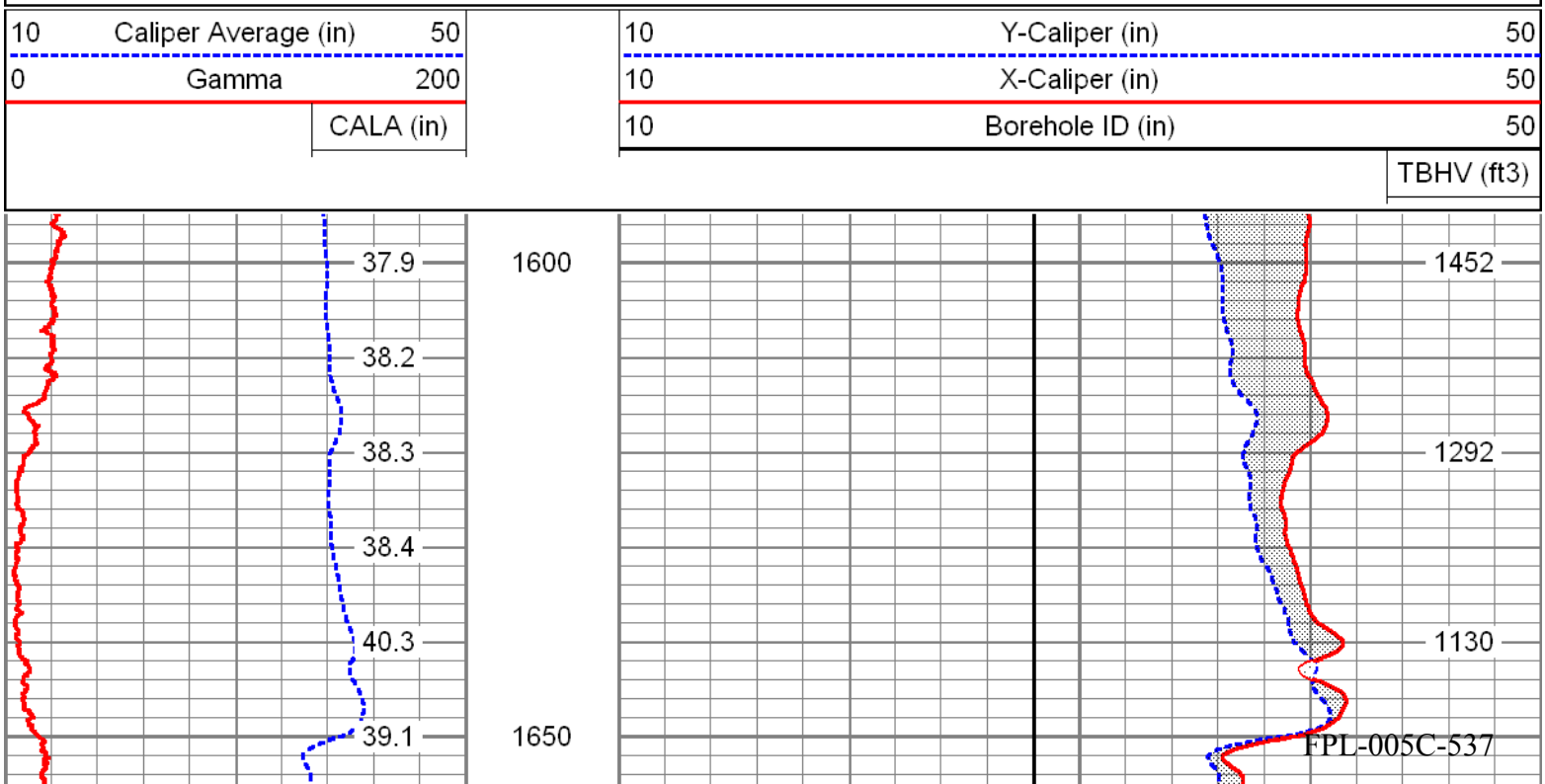
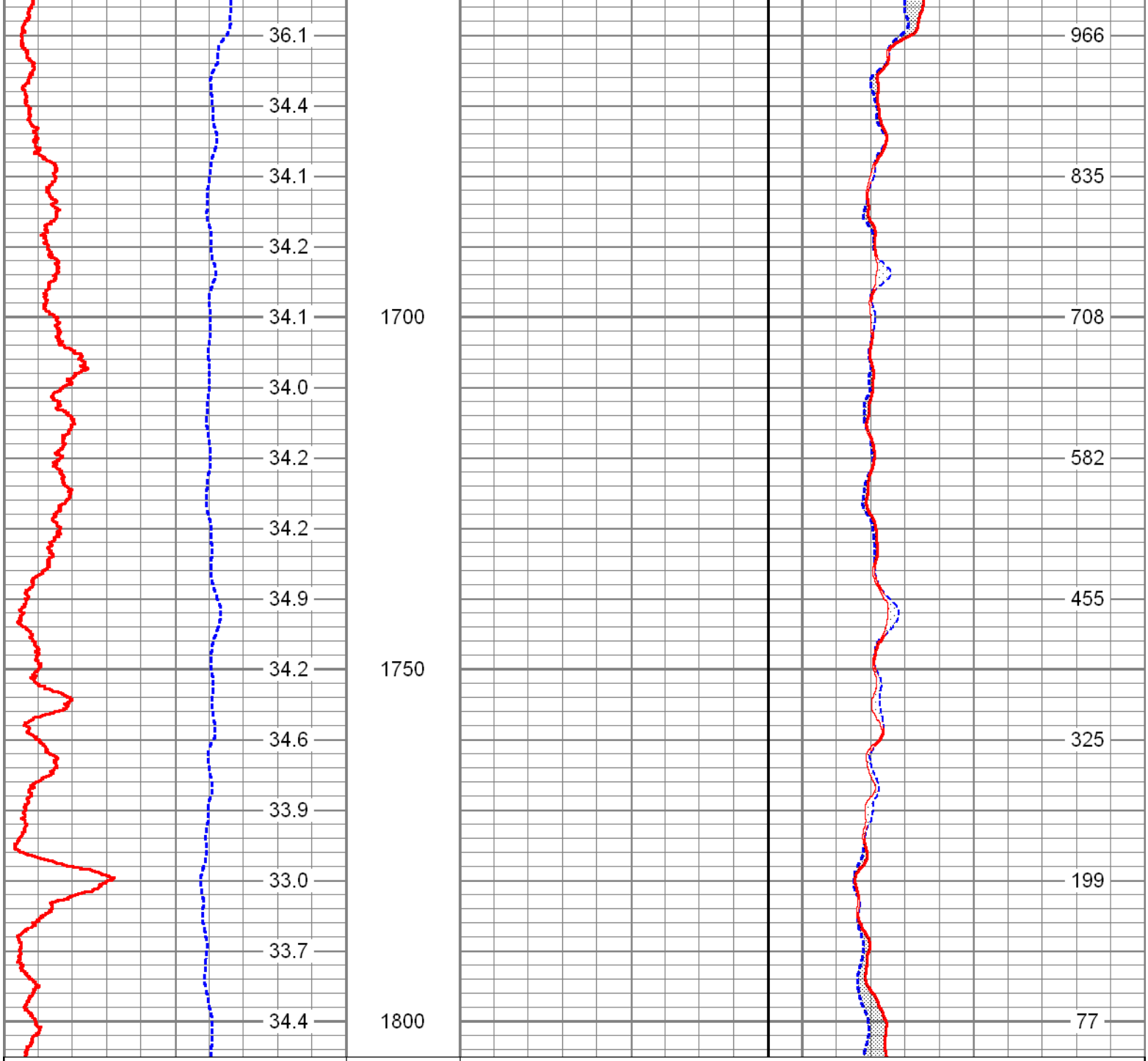
32.5
2650
32.2
32.4
33.1
33.1
32.6
2700
32.1
GAMMA
32.1
32.8
31.5
31.5
2750
Caliper Average
32.7
32.8
32.5
32.3
2800
32.4
33.5
31.4
1587
1470
1356
1240
1121
Bit Size
TBHV
1009
896
Y-Caliper
X-Caliper
788
672
556
442
FPL-005C-536



REPEAT PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCRPFIN
Presentation Format: xyc
Dataset Creation: Sun Jan 15 20:07:37 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827

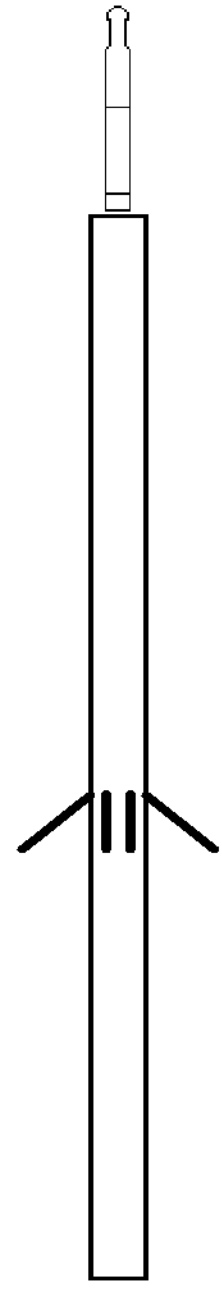
XY Caliper Calibration Report

Serial Number/Model: Probe24-60-Probe24"
Performed: Sun Jan 15 18:03:58 2012

Ring	X Caliper	Y Caliper
1: 10 in	387.784 cps	416.048 cps

FPL-005C-538

1:	10	in	387.784	cps	416.048	cps
2:	20	in	520.552	cps	576.722	cps
3:	30	in	688.426	cps	755.516	cps
4:	33.25	in	770	cps	829	cps
5:	40	in	886.54	cps	947.976	cps
6:		in		cps		cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-SDSCHD (SDS) Cable Head	1.00	1.50	5.00
			XYC-Probe24" (Probe24-60) Probe XY Caliper with 24" extensions	5.17	3.50	99.00
XCAL	0.50					
YCAL	0.50					

Dataset:	tpew1.db: field/well/run2/XYCMP
Total Length:	6.17 ft
Total Weight:	104.00 lb
O.D.	3.50 in

X-Y CALIPER GAMMA RAY LOG

Company LAYNE CHRISTENSEN COMPANY
Well TURKEY POINT EW-1
Field FLORIDA CITY
County MIAMI-DADE
State FLORIDA

Company LAYNE CHRISTENSEN COMPANY
Well TURKEY POINT EW-1
Field FLORIDA CITY
County MIAMI-DADE State FLORIDA

Location
FPL TURKEY POINT POWER PLANT
LAT: 25 25'19"N LONG: 80 20' 08" W
MC NABB HYDROGEOLOGIC CONSULTING, INC.

Other Services
NONE

Permanent Datum	GL	Elevation
Log Measured From	GL	K.B.
Drilling Measured From	GL	D.F.
		G.L.

Date	15-JAN-2012
Run Number	ELEVEN
Depth Driller	3230'
Depth Logger	2900'
Bottom Logged Interval	2900'
Top Log Interval	CASING
Open Hole Size	28"
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	SURFACE
Time Well Ready	0000
Time Logger on Bottom	0000
Equipment Number	VA-202
Location	JUIPTER
Recorded By	LEE
Witnessed By	M. CLASEN

Elevation

Elevation

Borehole Record

Run Number	Bit	From	To
ELEVEN	28"	CASING	2900'

Borehole Record

Run Number	Bit	From	To

Casing Record

	Size	Wgt/Ft	Top	Bottom
Surface String	34"	.375 W.T	SURFACE	1535'
Prot. String				
Production String				
Tubing				

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

MAIN PASS

Database File:	tpew1.db
Dataset Pathname:	run2/XYCMP
Presentation Format:	xyc
Dataset Creation:	Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by:	Depth in Feet scaled 1:1200

10 Caliper Average (in) 50

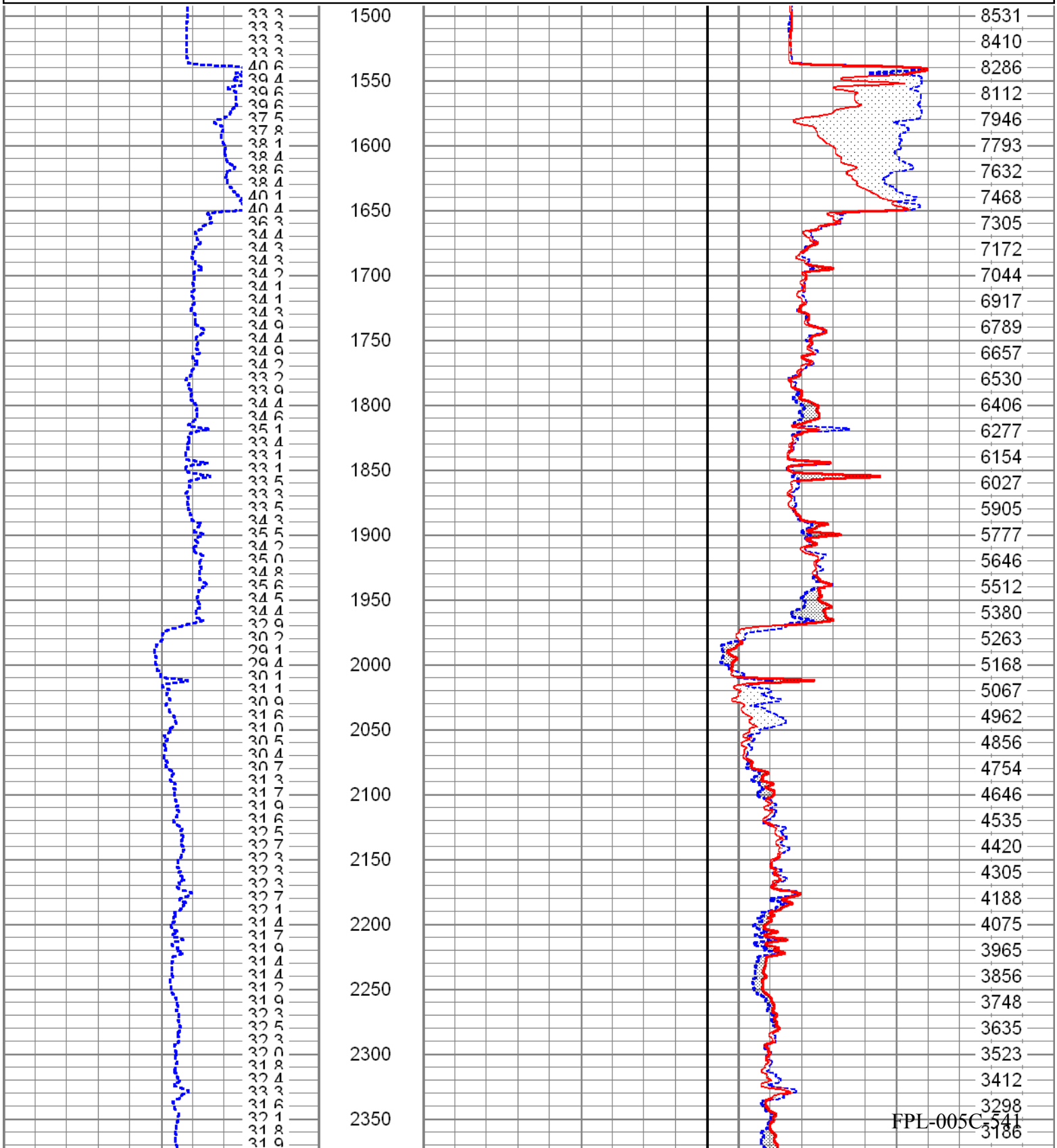
CALA (in)

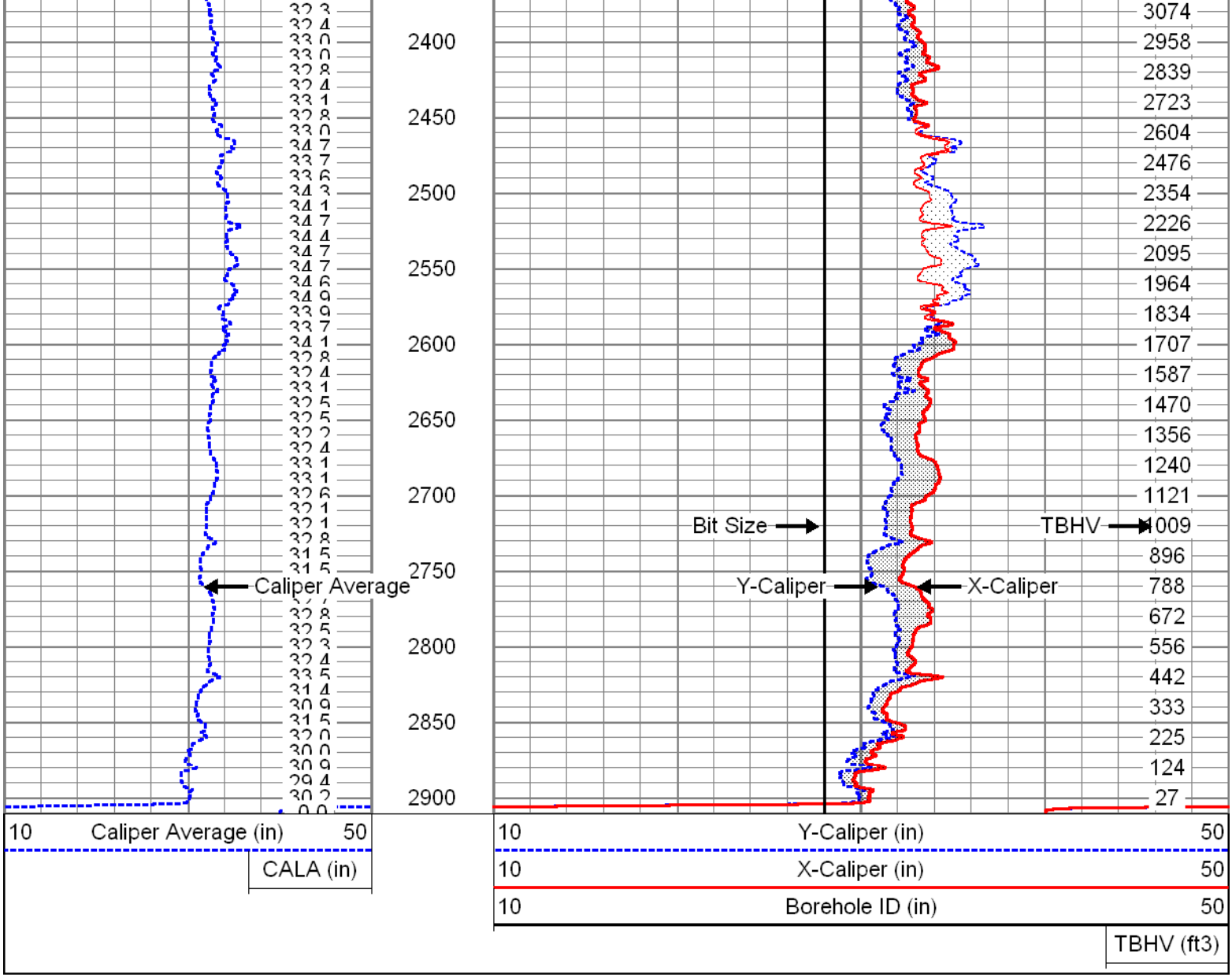
10 Y-Caliper (in) 50

10 X-Caliper (in) 50

10 Borehole ID (in) 50

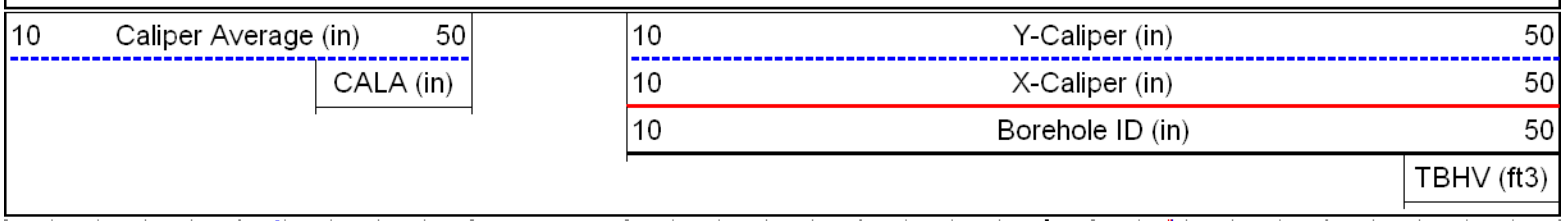
TBHV (ft3)

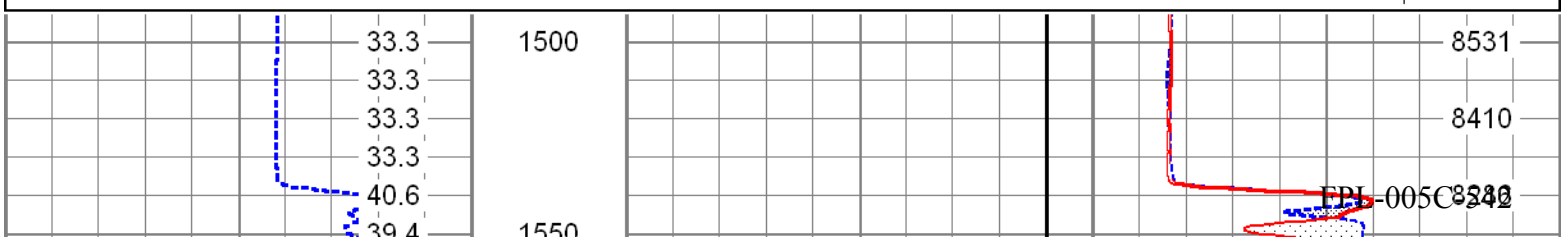


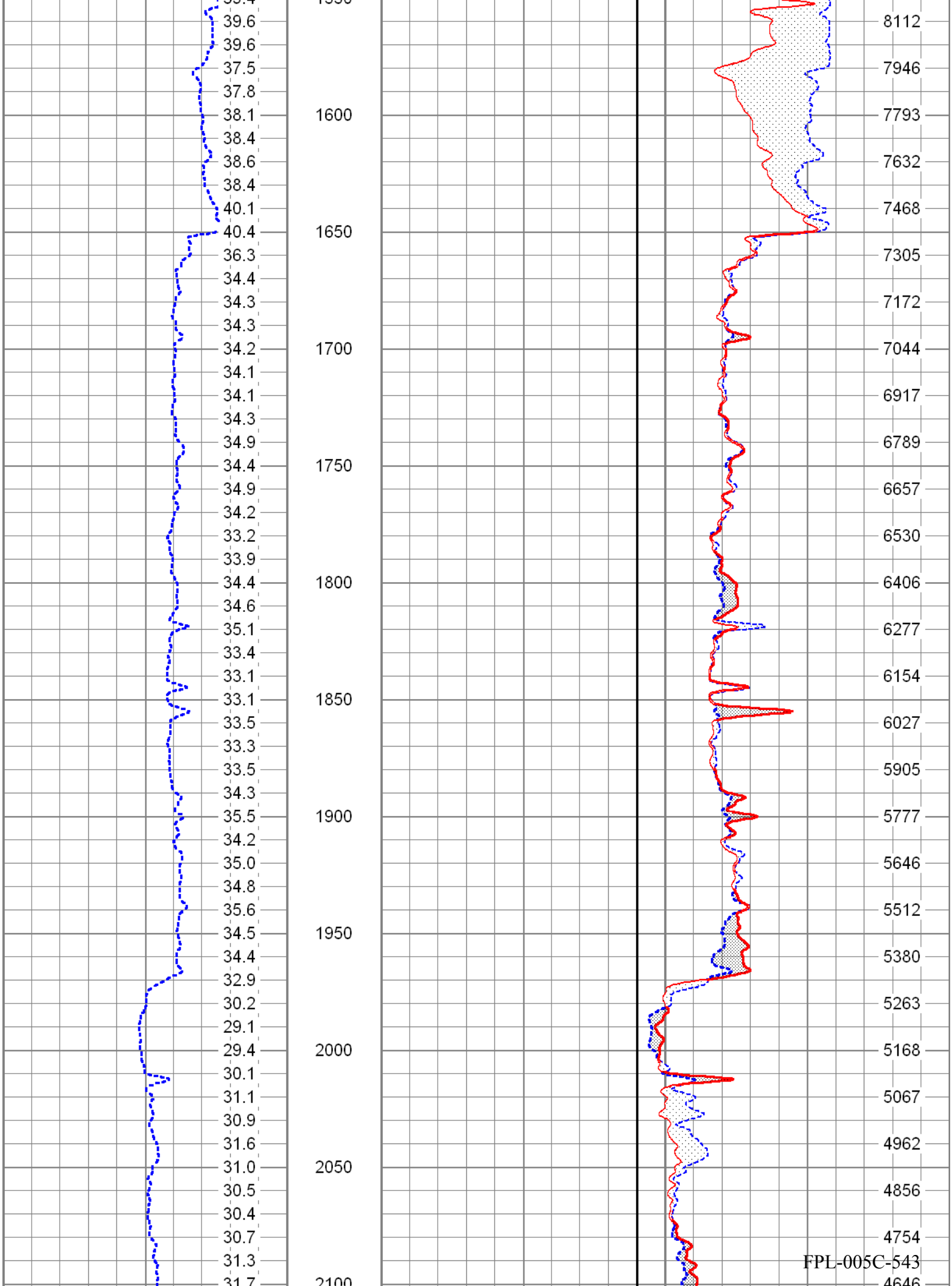


MAIN PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Presentation Format: xyc
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:600



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34.2
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34.3
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34.2
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34.4
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34.4
32.9
30.2
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29.4
30.1
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31.6
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30.5
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30.7
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2100
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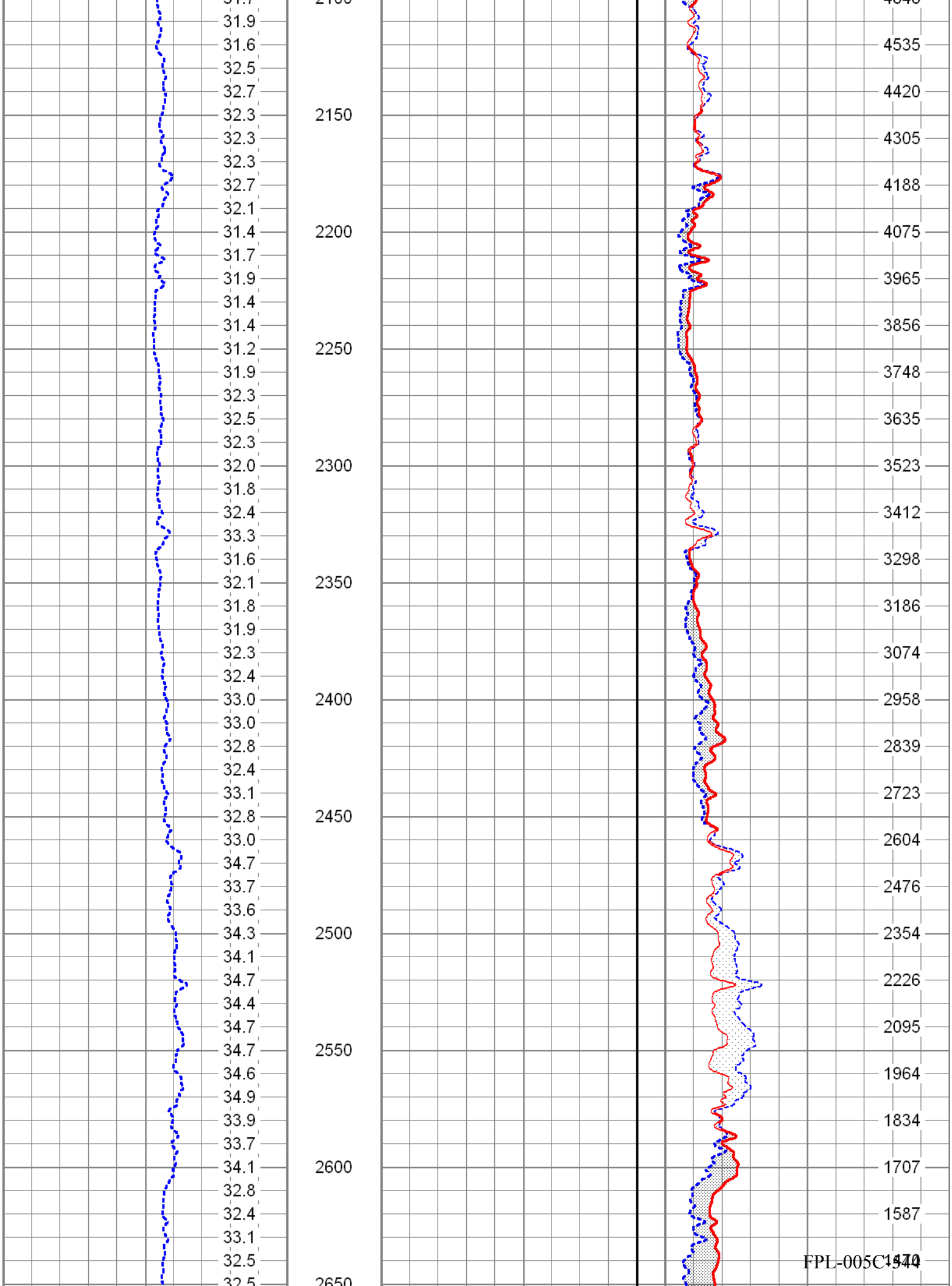
FPL-005C-543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31.4
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2250
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32.3
32.0
2300
31.8
32.4
33.3
31.6
32.1
2350
31.8
31.9
32.3
32.4
33.0
2400
33.0
32.8
32.4
33.1
32.8
2450
33.0
34.7
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33.6
34.3
2500
34.1
34.7
34.4
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2550
34.6
34.9
33.9
33.7
34.1
2600
32.8
32.4
33.1
32.5
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4420
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4075
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3856
3748
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2095
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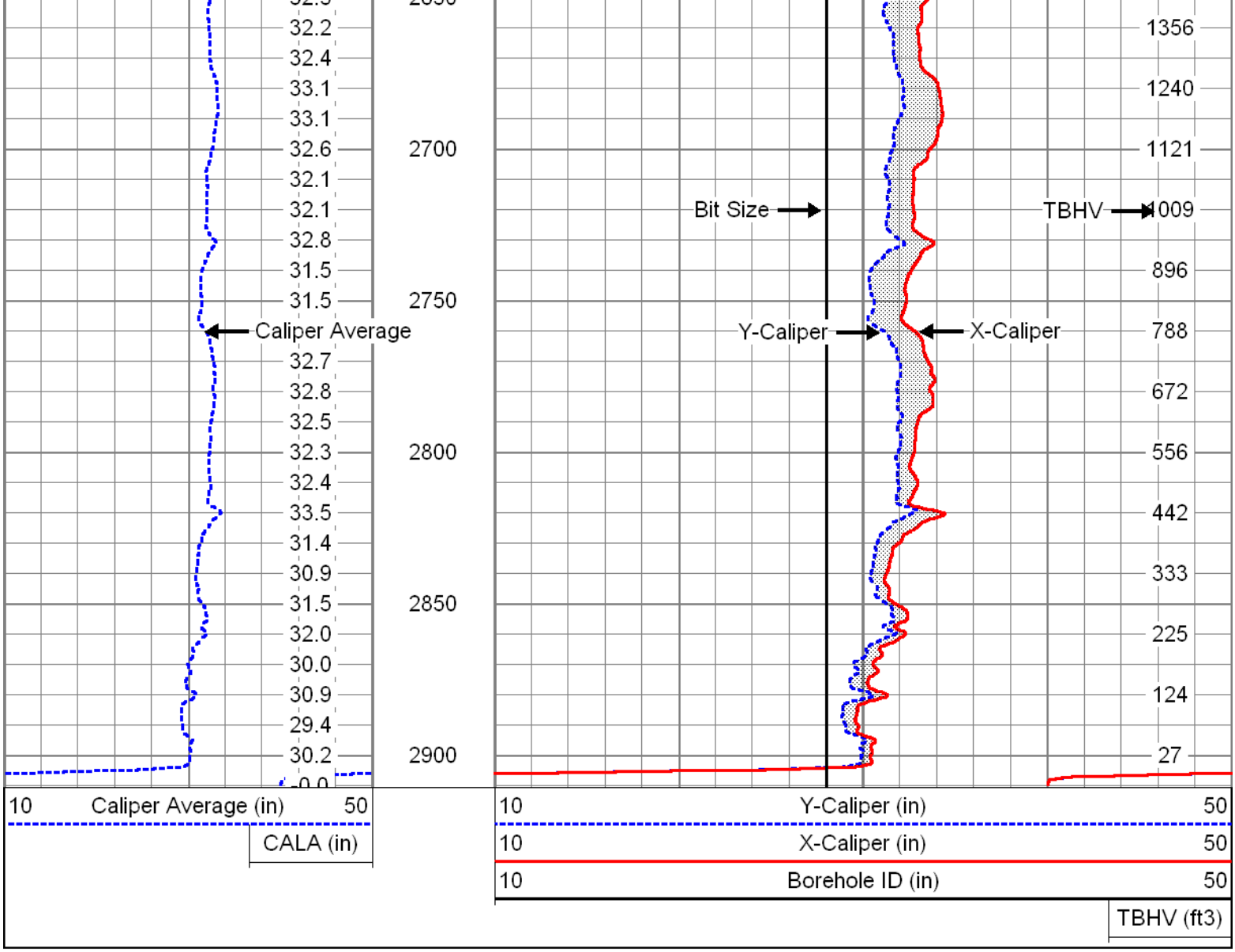
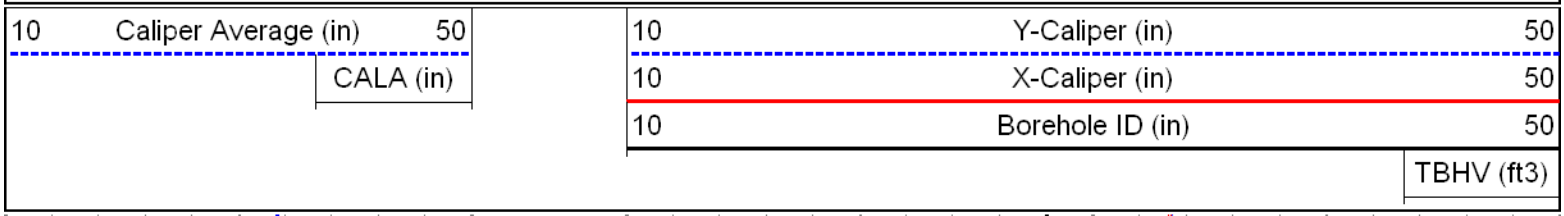
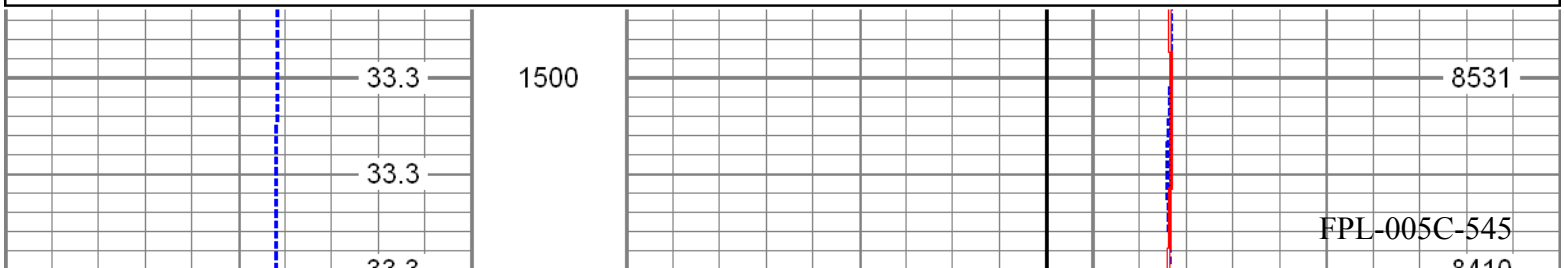
1587
1470

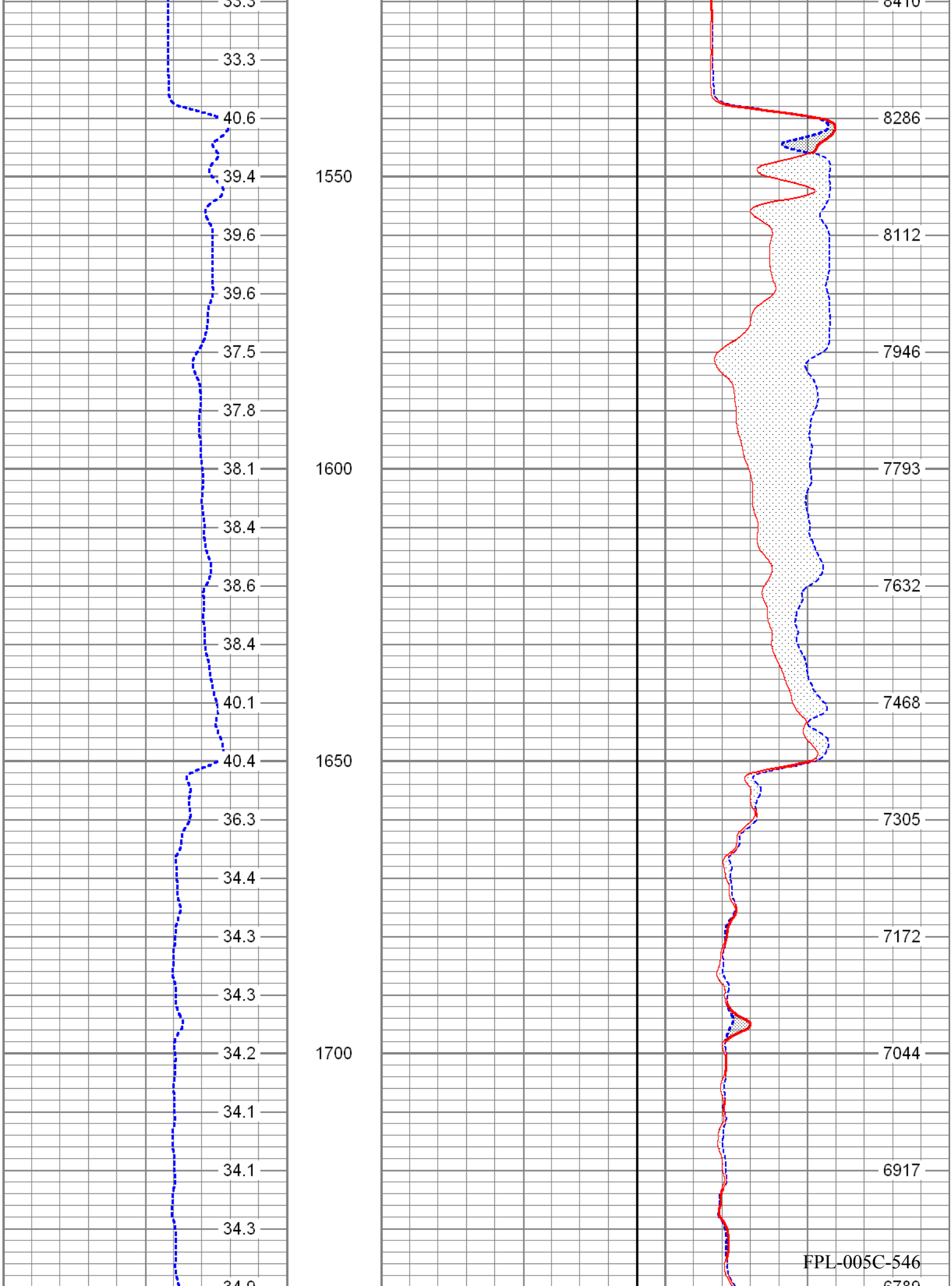


MAIN PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Presentation Format: xyc
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:240



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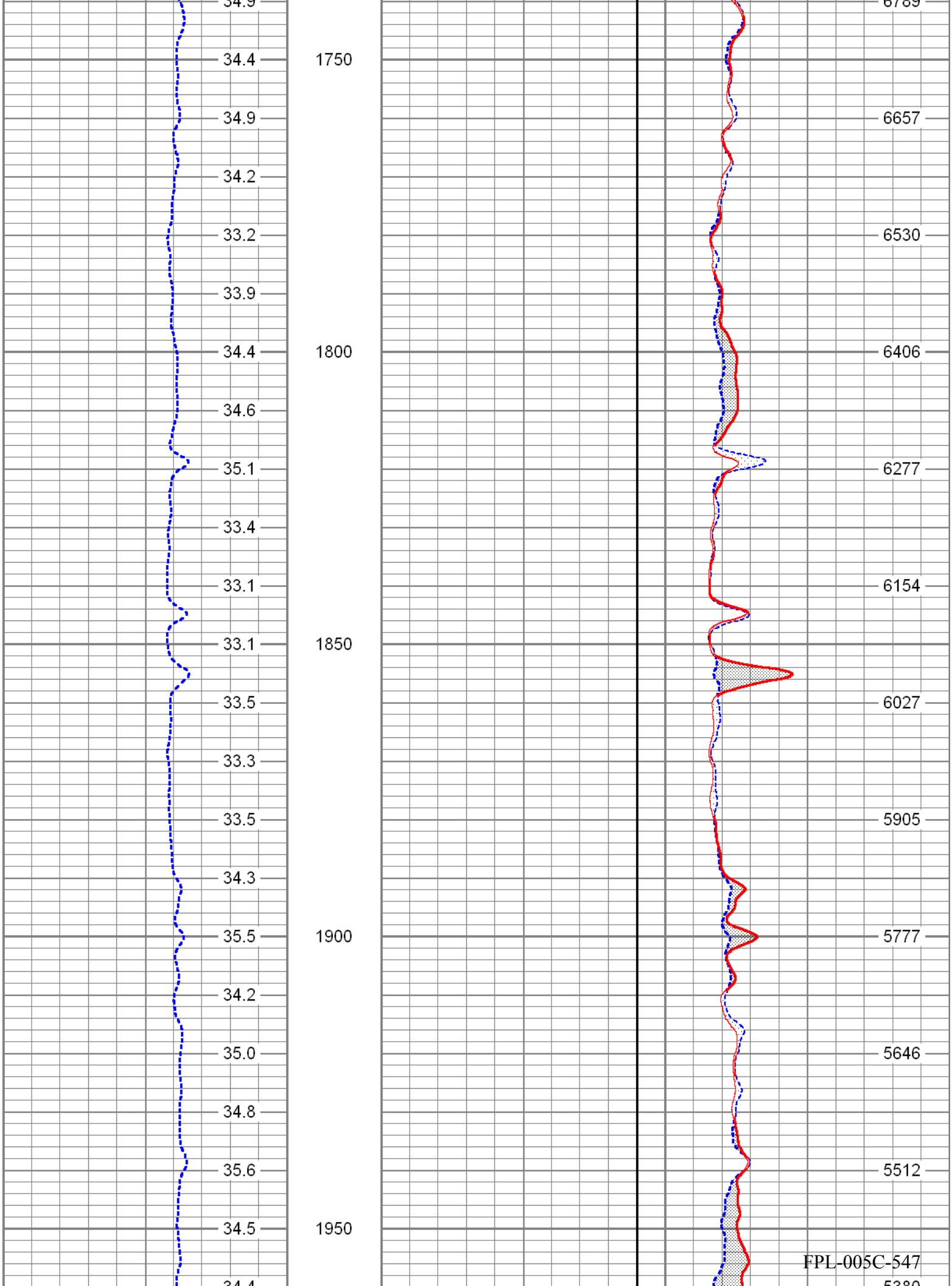
FPL-005C-546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34.2
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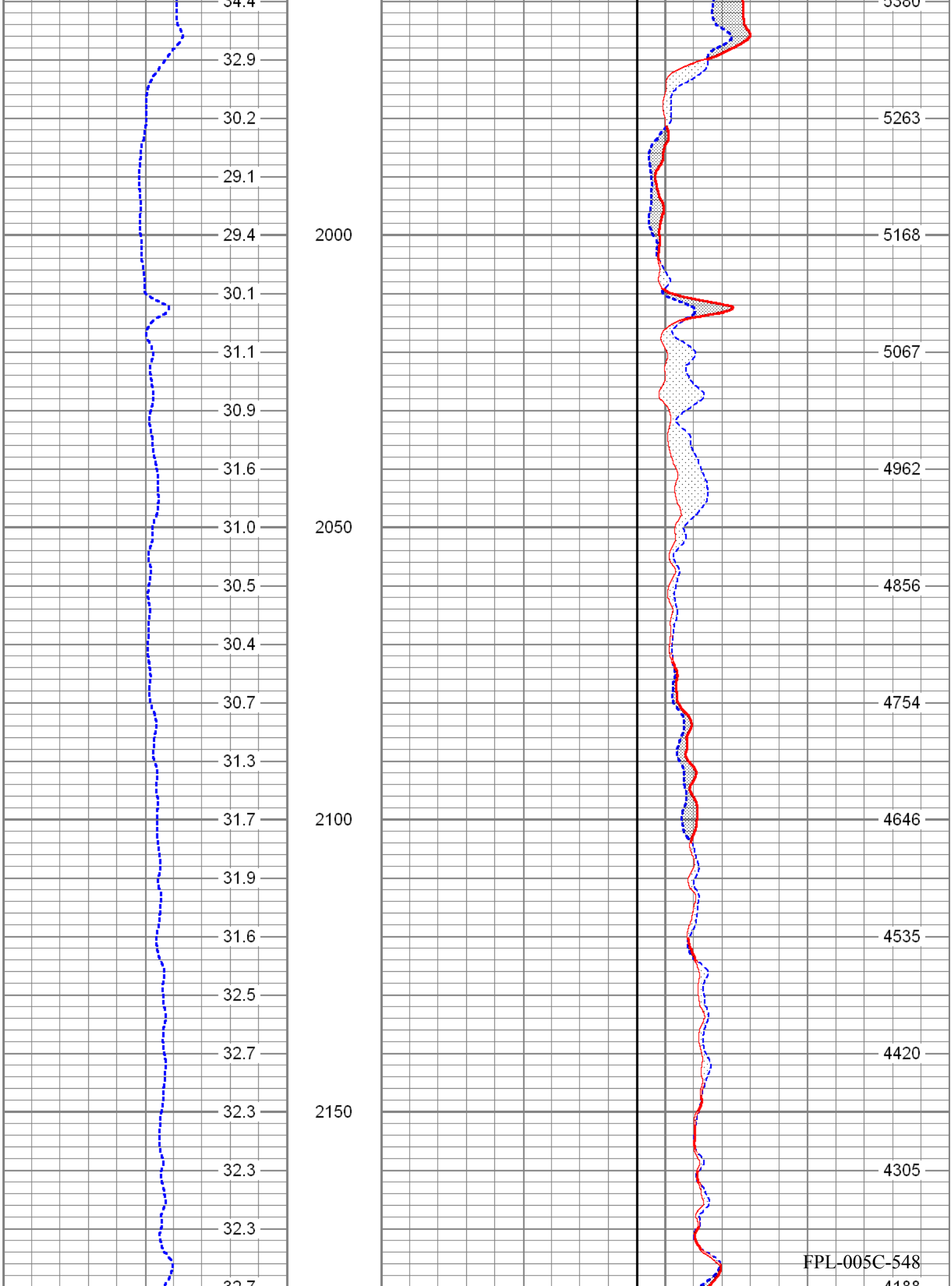
FPL-005C-547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30.2
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31.1
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31.0
2050
30.5
30.4
30.7
31.3
31.7
2100
31.9
31.6
32.5
32.7
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4856
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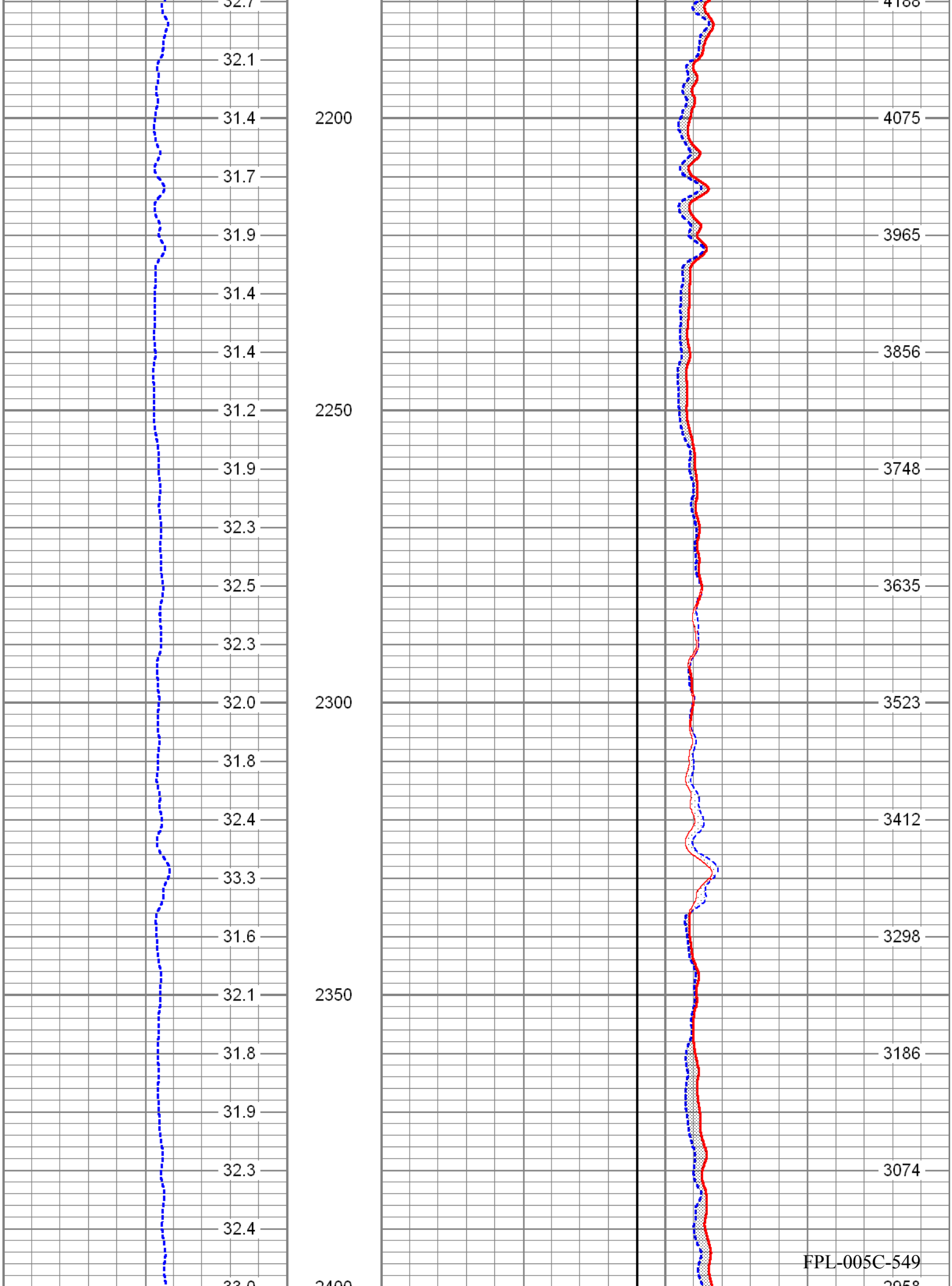
4535
4420
4305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2200
31.7
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2250
31.9
32.3
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32.3
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31.6
32.1
2350
31.8
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4188
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3635
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3298
3186
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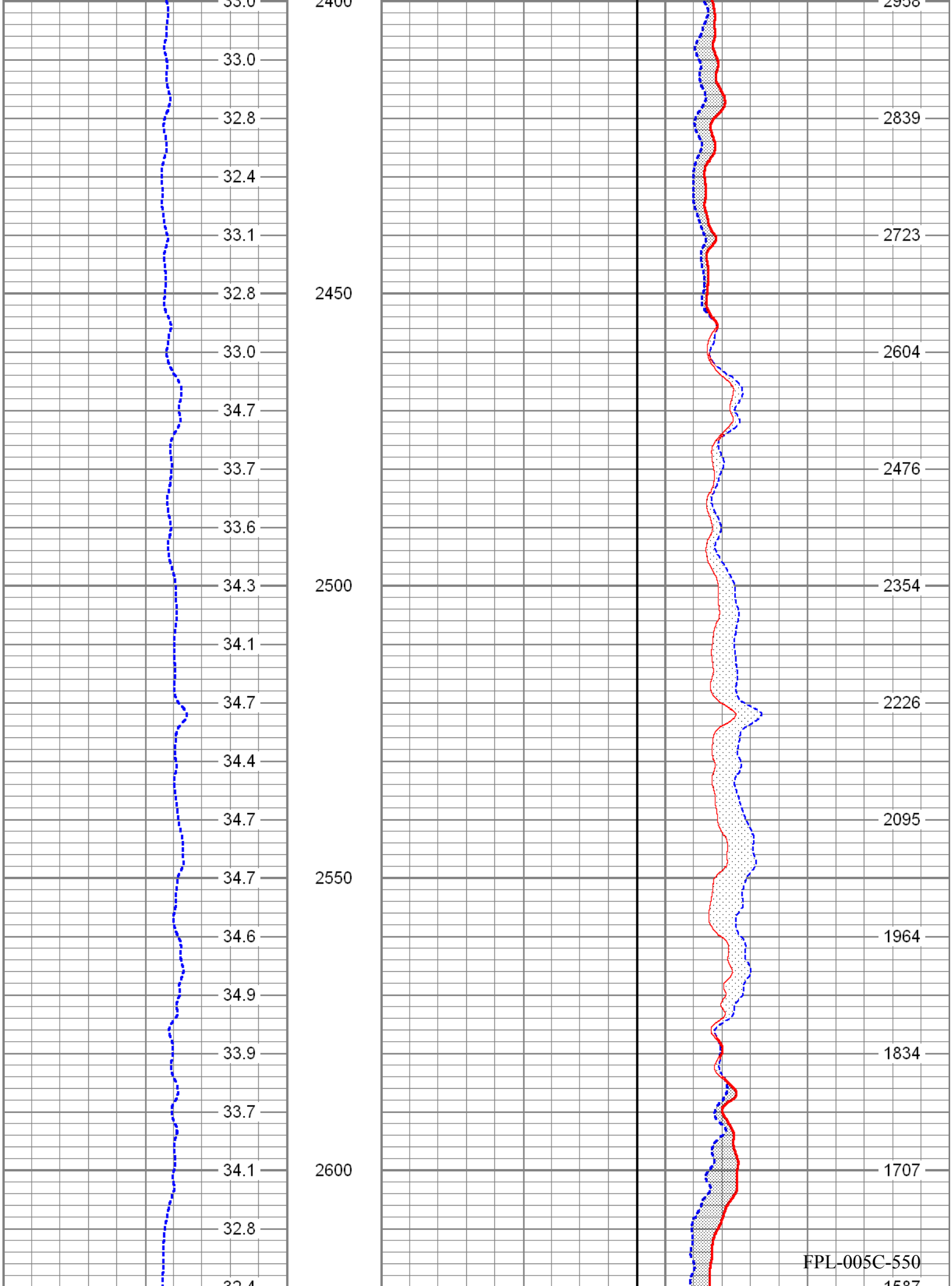
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32.8
32.4
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33.7
33.6
34.3
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33.7
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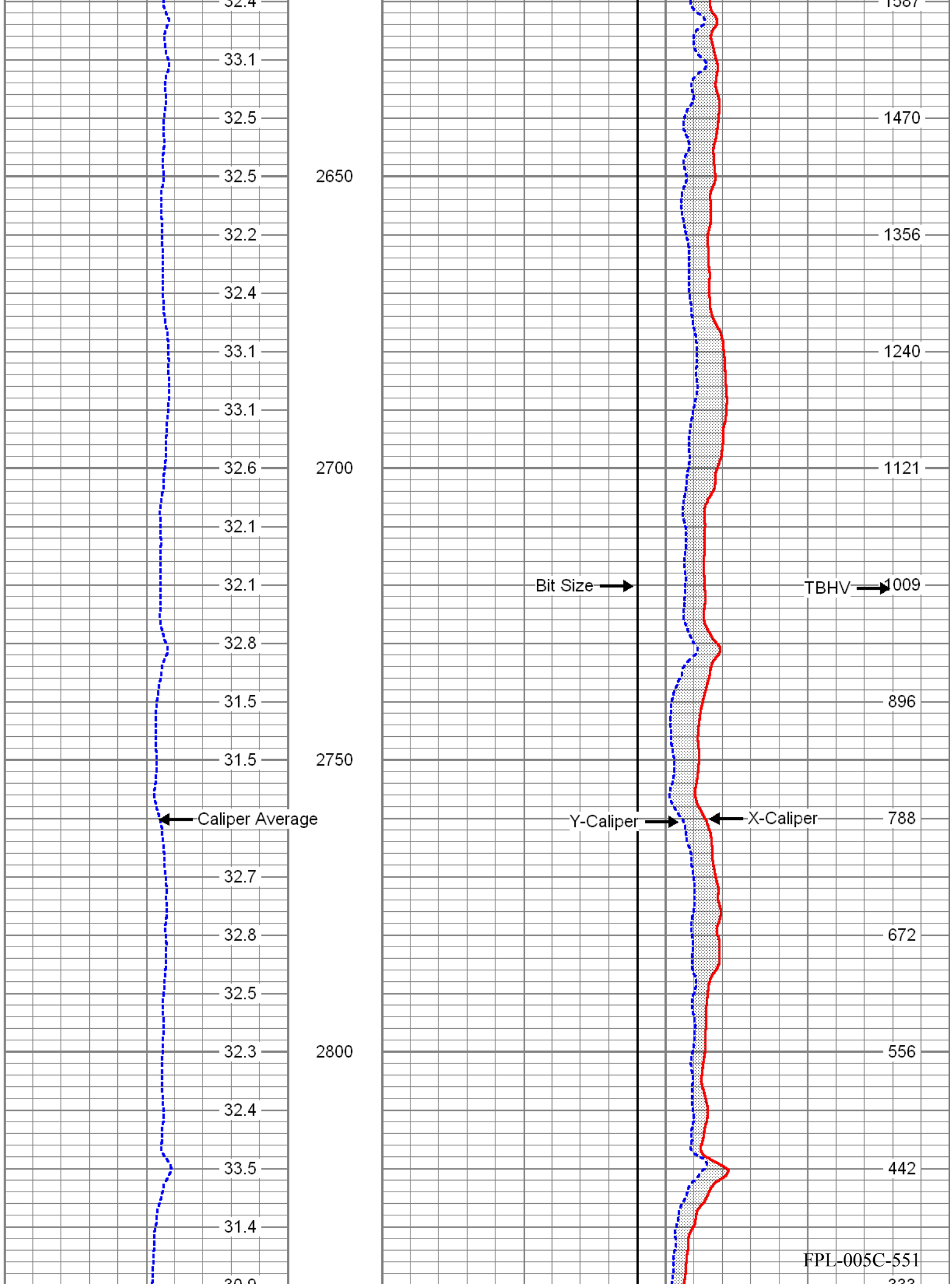
1707
FPL-005C-550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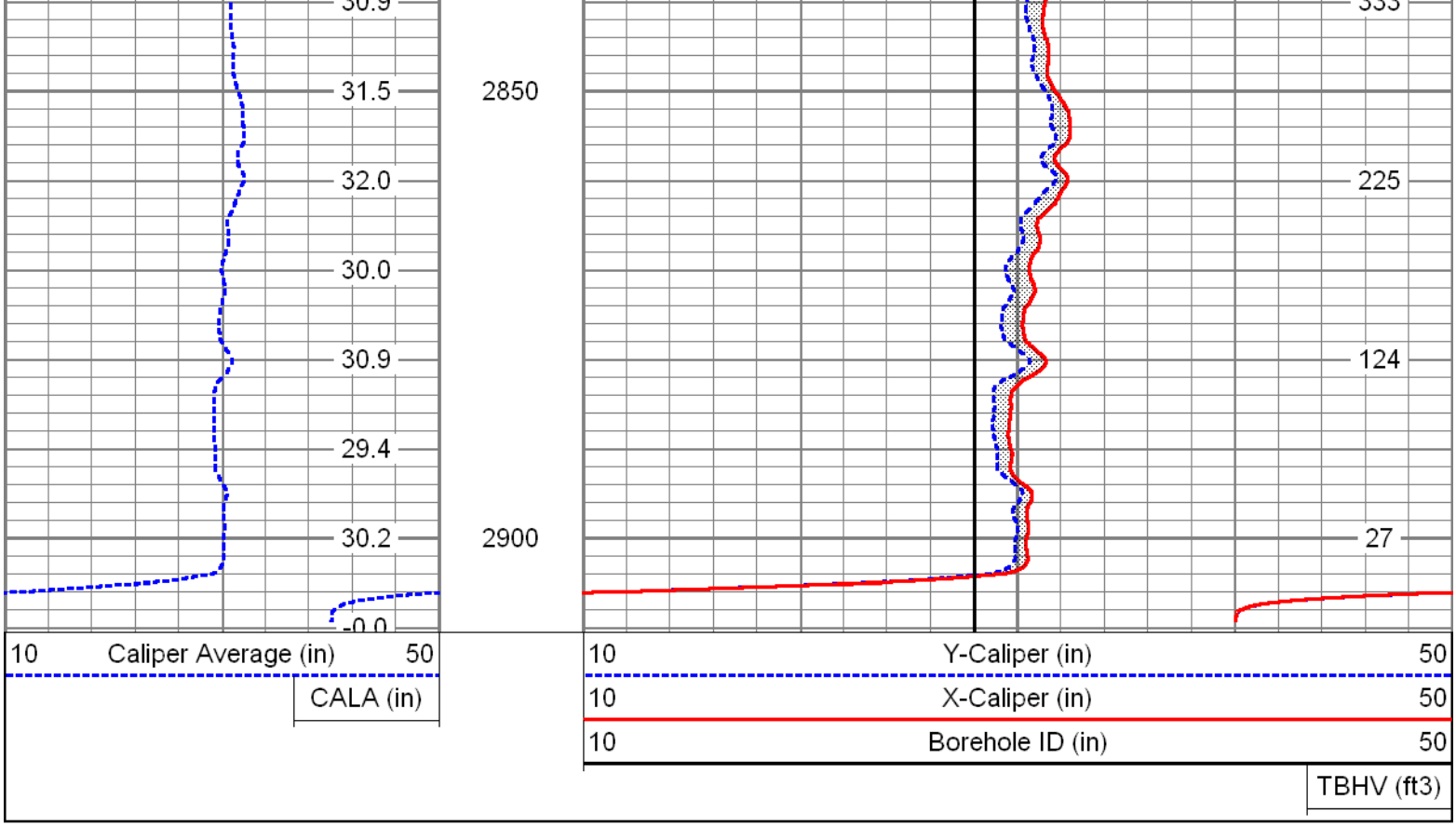
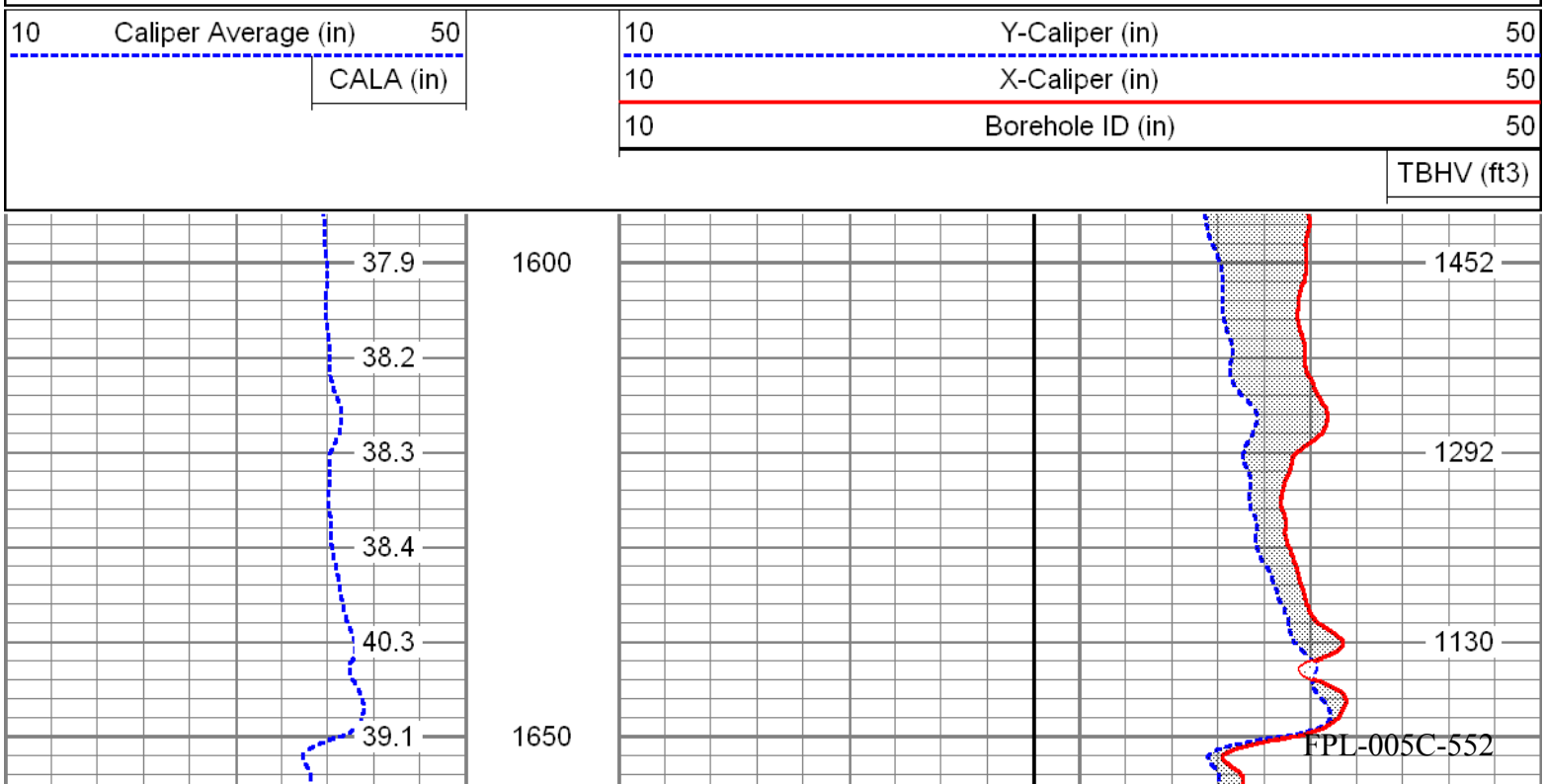
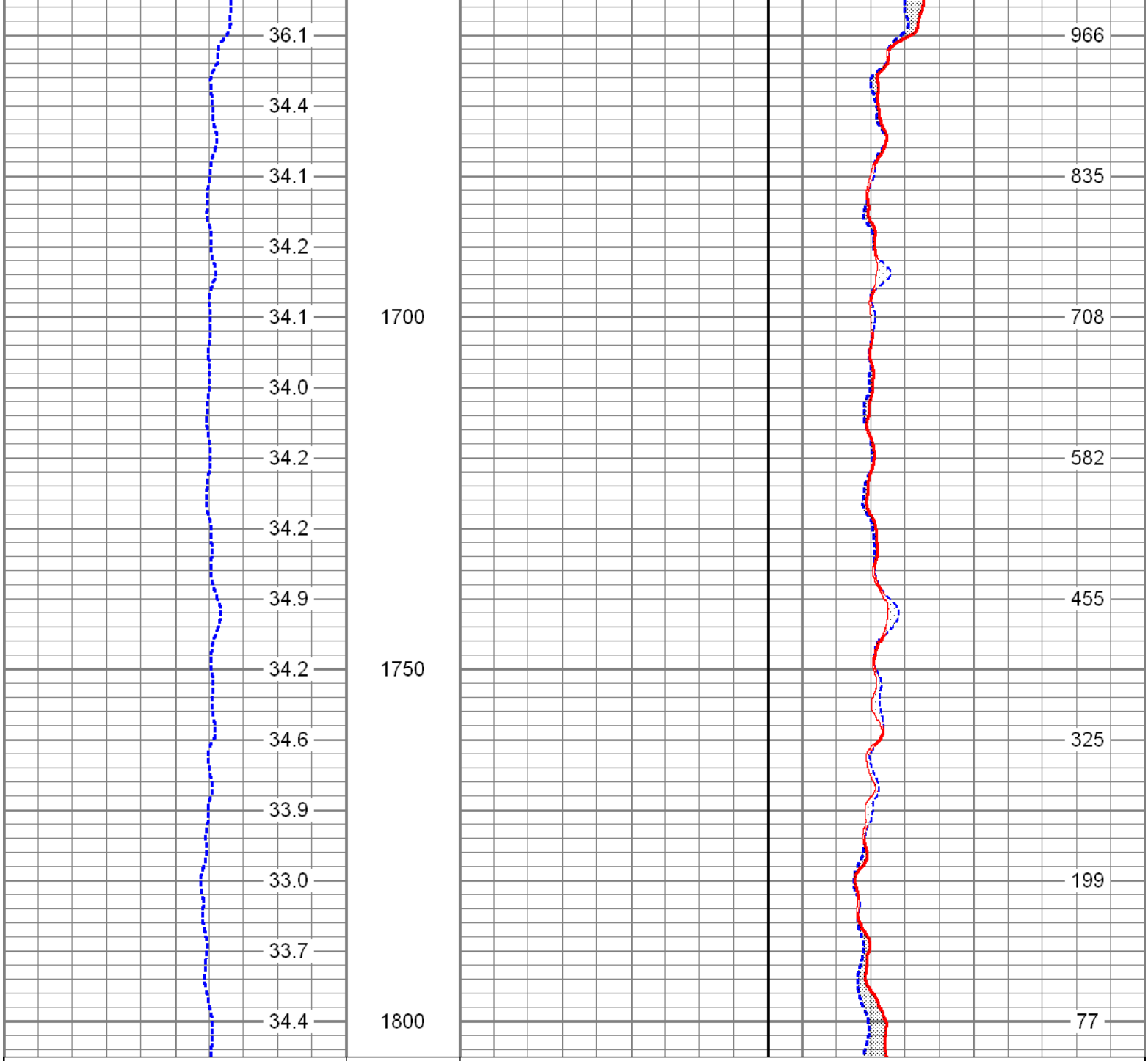
33.1
32.5
32.5
2650
32.2
32.4
33.1
33.1
32.6
2700
32.1
32.1
32.8
31.5
31.5
2750
Caliper Average
32.7
32.8
32.5
32.3
2800
32.4
33.5
31.4
1587
1470
1356
1240
1121
Bit Size
TBHV
1009
896
Y-Caliper
X-Caliper
788
672
556
442
FPL-005C-551



REPEAT PASS

Database File: tpew1.db
Dataset Pathname: run2/XYCRPFIN
Presentation Format: xyc
Dataset Creation: Sun Jan 15 20:07:37 2012 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: tpew1.db
Dataset Pathname: run2/XYCMP
Dataset Creation: Sun Jan 15 19:57:57 2012 by Calc Open-Cased 100827

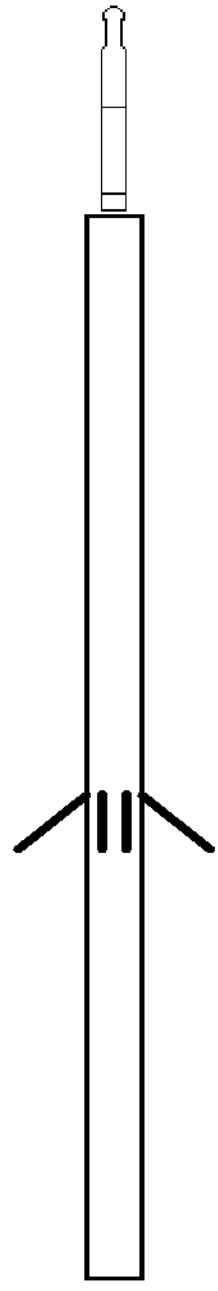
XY Caliper Calibration Report

Serial Number/Model: Probe24-60-Probe24"
Performed: Sun Jan 15 18:03:58 2012

Ring	X Caliper	Y Caliper
1: 10 in	387.784 cps	416.048 cps

FPL-005C-553

1:	10	in	387.784	cps	416.048	cps
2:	20	in	520.552	cps	576.722	cps
3:	30	in	688.426	cps	755.516	cps
4:	33.25	in	770	cps	829	cps
5:	40	in	886.54	cps	947.976	cps
6:		in		cps		cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-SDSCHD (SDS) Cable Head	1.00	1.50	5.00
			XYC-Probe24" (Probe24-60) Probe XY Caliper with 24" extensions	5.17	3.50	99.00
XCAL	0.50					
YCAL	0.50					

Dataset:	tpew1.db: field/well/run2/XYCMP
Total Length:	6.17 ft
Total Weight:	104.00 lb
O.D.	3.50 in

Company: Layne Christensen Company
Well: Turkey Point EW-1
Field: Biscayne Aquifer
County: Miami-Dade
State: Florida
Country: USA

MV Geophysical

X-Y CALIPER LOG

Turkey Point EW-1
Biscayne Aquifer
Miami-Dade
Florida
USA
Layne Christensen Company
Well
Field
County
State
Country
Company

Elevation: 0 ft (MSL)
Permanent Datum: GROUND
Log Measured From: KELLY BUSHING 0 ft above Perm. Datum
Drilling Measured From: KELLY BUSHING

Date: 20-Jul-07
Run Number: ONE
Depth-Driller: 1,120 ft
Depth-Logger: 1,120 ft
Bottom Logged Interval: 1,120 ft
Top Logged Interval: 0 ft
Casing Driller Size @ Depth: 24 in @ 0 ft
Casing Logger Size @ Depth: 24 in @ 0 ft
Bit Size: 18 in
Type Fluid in Hole: WATER
Density / Viscosity: 8.4 lb/gal
PH / Fluid Loss: 0 cc
Source of Sample: CIRCULATION
Rm @ Measured Temp: 0 @ 0 °F
Rmf @ Measured Temp: 0 @ 0 °F
Rmc @ Measured Temp: 0 @ 0 °F
Source of Rmf / Rmc: 0
Rm @ BHT: 0 @ 0 °F
Time Since Circulation: 0 hr
Time on Bottom: 0 hr
Max Recorded Temp: 0 °F
Equipment Number: 0
Location: 0
Recorded By: 0
Witnessed By: 0

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not be liable for any losses or claims in any form or manner whatsoever to any loss, costs damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

Comments:

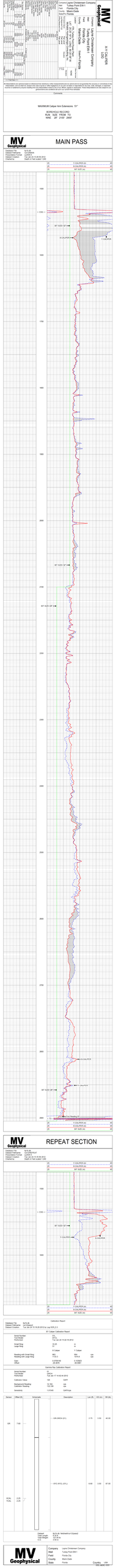
MAXIMUM Caliper Arm Extensions: 51"

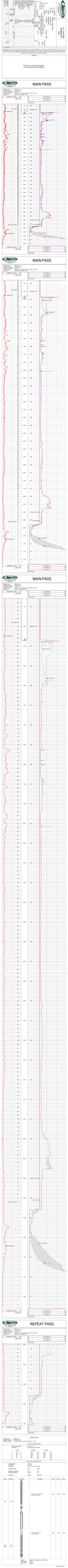
BOREHOLE RECORD
#1 FROM 0' TO 1120'
NAME: 20" 21ST 2007

MV Geophysical

MAIN PASS

Database File: 5y1c.db
Dataset Pathname: Log Pass 1
Presentation Format: LLDRES
Dataset Creation: Tue Jan 08 15:28:56 2013
Charted by: Depth in Feet scaled 1:240





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MAIN PASS

MAIN PASS

Logging Company
Well Name
Field
Company
Date
Run Number
Depth Datum
Log Measured From
Permanent Datum
Elevation
Drilling Measured From
API Serial No.
Location
Other Services
Remarks
Logging Engineer
Witness
Max Recorded Temperature
Equipment Number
Location
Recorded By
Time Since Circulation
Time Logger on Bottom
Max Logger Depth
Bit Size
Casing Driller
Casing Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Density
Viscosity
Fluid Loss
Source of Sample
Rm @ Measured Temperature
Rmf @ Measured Temperature
Rmc @ Measured Temperature
Source of Rmf and Rmc
Rm @ BHT
Time Circulation Stopped
Time Logger on Bottom
Max Recorded Temperature
Equipment Number
Location
Recorded By
Witnessed By
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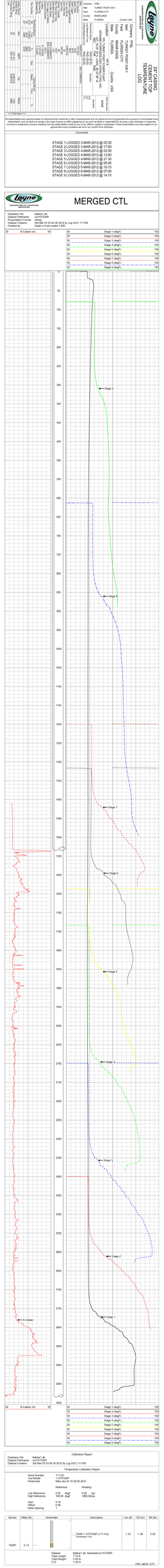
Company FPAL
Well TURKEY POINT EW-1
Field FLORIDA CITY
County MIAMI-DADE
State FLORIDA
Country USA
Company FPAL
Well FLORIDA CITY EW-1
County MIAMI-DADE
State FLORIDA
Country USA
24" CASING
CEMENT TOP
TEMPERATURE
LOG
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.
Comments
STAGE 1 LOGGED 3-MAR-2012 @ 03:30
STAGE 2 LOGGED 3-MAR-2012 @ 17:00
STAGE 3 LOGGED 4-MAR-2012 @ 03:30
STAGE 4 LOGGED 4-MAR-2012 @ 12:00
STAGE 5 LOGGED 4-MAR-2012 @ 21:30
STAGE 6 LOGGED 5-MAR-2012 @ 05:45
STAGE 7 LOGGED 5-MAR-2012 @ 10:15
STAGE 8 LOGGED 5-MAR-2012 @ 07:00
STAGE 9 LOGGED 5-MAR-2012 @ 14:15
MERGED CTL
Database File tylkiver1.db
Dataset Pathname run107TEMP
Presentation Format: cbmrg
Dataset Creation: Sat Mar 03 03:04:36 2012 to Log SOC 111108
Charted by: Depth in Feet scaled 1:600
X-Caliper (in)
Stage 1 (deg F)
Stage 2 (deg F)
Stage 3 (deg F)
Stage 4 (deg F)
Stage 5 (deg F)
Stage 6 (deg F)
Stage 7 (deg F)
Stage 8 (deg F)
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Stage 9
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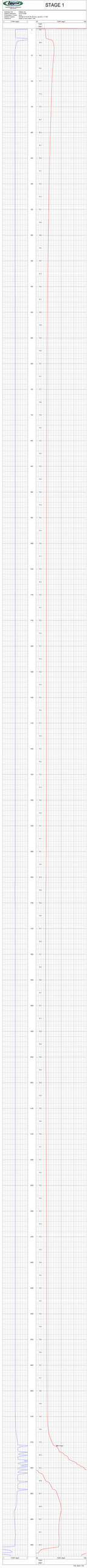
Stage 6
Stage 5
Stage 4
Stage 3
Stage 2
Stage 1
X-Caliper
Calibration Report
Database File: tylkiver1.db
Dataset Pathname: run107TEMP
Dataset Creation: Sat Mar 03 03:04:36 2012 to Log SOC 111108
Temperature Calibration Report
Serial Number 111143
Calibrated 03-Jan-2012
Performed Wed Jan 25 10:30:05 2012
Reference Reading
Low Reference: 0.00 degF 0.00 cps
High Reference: 100.00 degF 1000.00cps
Gain: 0.10
Offset 0.00
Delta Spacing: 1
Sensor Offset (ft) Schematic Description Len (ft) OD (in) Wt (lb)
TEMP 0.13 TEMP-1.375TEMP (111143) Temperature Tool 1.33 1.38 5.00
Dataset Pathname tylkiver1.db: fieldtest\run107TEMP
Total Length: 1.33 ft
Total Weight: 5.00 lb
O.D. 1.38 in
FPL-MISC-557

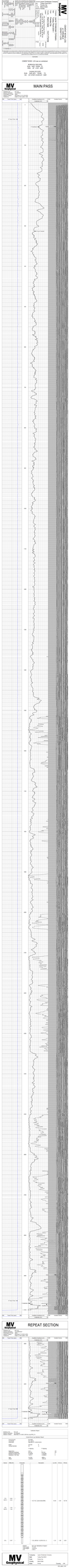
STAGE 1

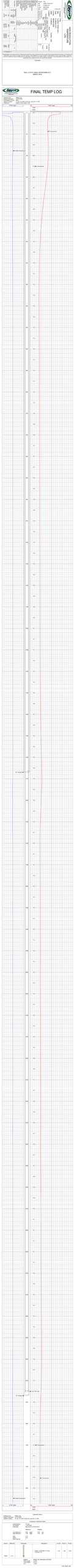
Operating Co:	APPOLLO
Drilling Contractor:	CWS
Wellhead Coordinates:	Lat 0° 0' 0.00" N, Long 0° 0' 0.00" E
Comments:	Depth is from rotary Table

CHAT (degF) 100 CHAT (degF) 150

CHAT (degF)




Cross Section Orientation Diagram
Cross Section Orientation Diagram
Cross Section Orientation Diagram


Rig: Nabors 1
Rig Type: Conventional
Spud Date: 10/27/2011
Rig Release: 11/5/2011
Ground Level (ft): 2,000.00
Rig Elevation (ft): 2,000.00
KB-Ground Distance (ft): 0.00
Water Depth (ft): 0.00
Multi-Rig: No
Offshore: No
Daily Activity
Daily Cost
Cum Cost
Cum Cost To Date
Depth
Depth Progress
Drilling Time
Drilling Rate
Mud Cost
Mud Additive Amounts
Mud Type
Mud Weight
Mud Vis
Mud PV
Mud YP
Mud Gels 10s
Mud Gels 10m
Mud Gels 30m
Mud Fluid Loss
Mud Filter Cake
Mud Solids
Mud Sand
Mud Water
Mud Oil
Mud Ph
Mud Pm
Mud Pf
Mud Mf
Mud Chlorides
Mud Calcium
Mud Chrome
Mud Lime
Mud Gel Strength
Mud Electrical Stability
Mud Hardness
Mud Low Gravity Solids
Mud Viscosity
Mud Yield Point
Mud Filtrate
Mud Cake
Mud Oil Water Ratio
Mud Solids Ratio
Mud Water Ratio
Mud Oil Ratio