

ARIZONA PUBLIC SERVICE COMPANY
PALO VERDE NUCLEAR GENERATING STATION
UNIT 1 CONTAINMENT
1990 REACTOR CONTAINMENT BUILDING INTEGRATED LEAK RATE TEST
FINAL REPORT

PREPARED BY:
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FOR:
WESTINGHOUSE ELECTRIC CORPORATION
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Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE OF CONTENTS

SECTION	PAGE
1. Introduction	Page 1
2. Summary	Page 2
3. Methodology	Pages 3 - 5
3.1 Leakage Rate Calculation	Pages 3 and 4
3.2 Test Measurements	Pages 4 and 5
4. Procedures	Pages 6 - 8
4.1 Plant Status	Page 6
4.2 Pressurization	Page 6
4.3 Stabilization, Type A Test and Verification	Pages 7 and 8
5. Results	Pages 9 - 11
5.1 Type A Test	Pages 9 - 11
5.2 Verification Test	Page 11
5.3 Mass Point Results	Page 11
6. References	Page 12
Tables	
Figures	
Appendix I - Containment Description	
Appendix II - Computer Program Description	
Appendix III - Test Data	
Appendix IV - Temperature Plots for Drybulb and Dewpoint Sensors	
Appendix V - Type B and C Local Leakage Rate Test Results	



1. INTRODUCTION

The containment integrated leakage rate test (ILRT) is performed as required by 10CFR50/Appendix J (Reference 1) to demonstrate that leakage through the containment boundary at design basis accident pressure does not exceed the Technical Specification limit. Test methods and procedures are specified in ANSI N45.4-1972 (Reference 2), which is referenced in Appendix J, and BN-TOP-1 (Reference 3), which contains specific test requirements acceptable to the USNRC. The conduct of the ILRT follows a plant surveillance procedure (Reference 4) which contains detailed instructions for all test phases.

The Palo Verde Unit 1 1990 ILRT is described in detail in the following sections of this report. Section 2, Summary, summarizes test results. Section 3, Methodology, describes measurements and calculations. Section 4, Procedures, describes plant status, containment pressurization and test phases. Section 5, Results, presents the results of the measurements and calculations for the eight (8) hour (Type A) test and verification test. Section 6 lists references and the Appendix contains a description of the containment, a description of the ILRT computer program, a listing of all test data and a listing of Type B and C (local leakage rate) test results.



2. SUMMARY

The Palo Verde Unit 1 ILRT was conducted on February 20, 21 and 22, 1990. Pressurization was started at 1:30 p.m. on February 20 following the completion of all prerequisite activities and terminated at 10:00 a.m. on February 21 when internal pressure had reached 50.3 PSIG. The eight (8) hour ILRT (Type A test) commenced at 2:30 p.m. on the 21st following 4.5 hours of stabilization. An 8.15 SCFM (0.103 wt.%/day) verification flow was established at 10:45 p.m. following the 10:30 p.m. completion of the Type A test. The verification test was conducted between midnight and 4:00 a.m. on February 22. The containment was subsequently depressurized. Test results are listed below.

95% UCL on total time leakage rate	0.066 wt.%/day
Acceptance limit (75% La)	0.075 wt.%/day
Extrapolated total time calculated leakage rate	<0.010 wt.%/day
Acceptance limit (75% La)	0.075 wt.%/day
Mean of measured leakage rates	0.028 wt.%/day
Acceptance limit (La)	0.100 wt.%/day
Total time calculated leakage rate, verification	0.099 wt.%/day
Upper limit	0.139 wt.%/day
Lower Limit	0.089 wt.%/day

The final as left leakage rate (UCL) is 0.066 wt.%/day since penalties for penetrations in non-standard alignment and water inventory change add to a very small value.

The calculated as found leakage rate (UCL) is 0.067 wt.%/day. This is the sum of the as left rate (UCL) plus 0.0005 wt.%/day improvements in minimum pathway leakage made during the Type B and C local testing program.

3. METHODOLOGY

3.1 Leakage Rate Calculation

Integrated Leakage Rate is determined by calculating the average rate of loss of dry air from the containment. The quantity of dry air in the containment is calculated using the ideal gas law and measurements of drybulb temperature, dewpoint temperature and absolute pressure. A single average drybulb temperature, T , is calculated as the sum of the products of twenty-four (24) measured temperatures and their associated weighting factors (discussed below). Individual dewpoint temperatures are converted to vapor pressures using the ASME Steam Table algorithm relating saturation pressures and temperatures. A single average vapor pressure is calculated as the sum of the products of six (6) individual pressures and their associated weighting factors. Dry air partial pressure, P , is measured total pressure less average vapor pressure. The quantity of air in the containment is computed using the ideal gas law,

$$M = PV/RT$$

where M is the quantity of air in pounds mass, V is containment free air volume in cubic feet, R is the gas constant* for air and P and T are defined above. Containment free air volume used for ILRT calculations is 2,649,000 cubic feet. The quantity of dry air is calculated so that evaporation of water and condensation of vapor, which are purely internal processes, do not affect the computed leakage rate.

Assuming that leakage rate is constant, it is best defined as the slope of a line fitted to the air mass and time data sets. The slope of this line is the average rate of loss of air. Reference 3 takes a somewhat different approach to calculating leakage rate. The total time method described in Reference 3 is based on the premise that leakage rate varies linearly with time. Measured leakage rates are determined for air mass values derived from data collected at regular (15 minute) intervals. Measured rate is initial air mass less current air mass divided by current time less initial time. A straight line is fitted to the measured rate versus time data using the method of least squares. The calculated leakage rate is defined as the ordinate of this line at the end of the test.

The measured leakage rates will exhibit some scatter about the fitted line with the result that there is a statistically determinable uncertainty as to the true rate. The uncertainty is quantified by calculating a 95% confidence band for the end of test measured leakage rate. The upper limit of this confidence band is a very conservative bound on true leakage rate.

Reference 3 specifies three acceptance criteria. First, the upper limit of the 95% confidence band on the end of test measured leakage rate must be less than the acceptance leakage rate (per Reference 1, this acceptance rate is 75% of the maximum allowable leakage rate defined in the Technical Specifications or, $.75 \times 0.100\%/Day = 0.075\%/Day$).

* $R = 53.35$ (pounds force x feet)/(pounds mass x degrees Rankine)

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3. METHODOLOGY (cont)

3.1 Leakage Rate Calculation (cont)

Second, the calculated leakage rate extrapolated to a twenty-four hour test duration must be less than the acceptance leakage rate.

Finally, the mean of the measured leakage rates over the final five (5) hours of the test must be less than the maximum allowable leakage rate. The test may be terminated when all three criteria are met if the duration is at least six (6) hours (eight hours per Reference 4).

Following the conclusion of the test, the calculational method is verified by imposing an additional leak (through a calibrated flow meter) on the containment and calculating the new leakage rate. The imposed leak, vented from the containment through a flow meter, is approximately equal to the maximum allowable leakage rate. The new calculated leakage rate must equal the previously calculated rate plus the imposed rate plus or minus 25% of the maximum allowable leakage rate. This supplemental test also provides a rough check on pressure measurement since a large error in the measurement of pressure change will result in a calculated leakage rate which differs significantly from the expected rate.

3.2 Test Measurements

Leakage rate calculations are based on data taken from drybulb and dewpoint temperature sensors located inside the containment and absolute pressure transducers connected through temporary tubing to a containment piping penetration (62B) dedicated to ILRT. Twenty-four (24) drybulb and six (6) dewpoint temperature sensors were installed in the containment at approximately equally spaced elevations. Sensor locations and weighting factors (volume fractions) are listed in Table 1. Sensor locations and weighting factors were established by considering temperature distributions in past tests and the containment geometry (the containment is described in Appendix I). Since both drybulb and dewpoint temperatures tend to exhibit a pronounced vertical stratification at the completion of pressurization and throughout the test, sensors were set at approximately equally spaced elevations and the volume associated with each sensor was taken as a horizontal slice through the containment with the sensor at its approximate vertical centroid. While there is no evidence that containment atmospheric conditions vary with plan location, the possibility of an unusual in plane temperature distribution was accounted for by arranging sensors in a spiral configuration. The bearing of each sensor is advanced approximately 60 degrees clockwise (drybulb) or 120 degrees counterclockwise (dewpoint) from that of the sensor above it. Above the refuel floor, radius was set such that one half of the horizontal slice area was inside the spiral surface and the other half outside. Below the refuel floor, sensors were positioned about midway between the secondary shield and the liner. One drybulb sensor was suspended in the refuel cavity. Sensors above the refuel floor were suspended from spray rings, the polar crane and steel structures. Those below the refuel floor were suspended from grating, piping and various structures. Deviations from theoretical locations were made to allow for interferences.



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3. METHODOLOGY (cont)

3.2 Test Measurements (cont)

Drybulb temperatures were measured using 100 Ohm platinum resistance temperature detectors (RTD's). Dewpoint temperatures were measured by chilled mirror dew cells. These devices use a thermoelectric junction to cool a small mirror. The amount of light reflected by the mirror from a light source to a photodetector changes when the mirror cools to the dewpoint and collects condensation. A small RTD senses mirror temperature which is controlled at the dewpoint by the photodetector circuit. The dewpoint temperature sensors are completely self contained units requiring a 24 V DC input. The RTD sensing mirror temperature provides the output. This RTD is wired to the data acquisition system exactly as are the RTD's used to sense drybulb temperature.

Absolute pressure was measured by a vibrating cylinder pressure transducer. This device uses an electronic circuit to determine a modal frequency of a cylinder subjected to absolute (one side containment pressure/one side vacuum) containment pressure. This frequency varies approximately linearly with pressure. An internal microprocessor is programmed during calibration to convert frequency to true absolute pressure in engineering units. The pressure transducers have a resolution of 0.0001 PSI and a stability of 0.001 PSI (based on deviations between two transducers over the eight hour test duration).

A digital data acquisition system was used to collect data at fifteen (15) minute intervals and transfer that data to the ILRT computer over a serial (bit by bit transmission) link. The data system included the conditioning for the RTD's and converted resistance to temperature with a 0.01 degree C resolution. The pressure transducers provided a binary coded decimal output to the data system. This was passed on to the computer as a five digit number (XX.XXX) and a single digit number (.000X). This dual output was necessary since the data acquisition system has an output limitation of about 80,000 counts. The data system generated a printed tape record of each data set transmitted to the computer.

The ILRT computer was a small IBM compatible running a compiled Basic program. The program is described in Appendix II.

Other instrumentation included a variable area flow meter (connected to dedicated ILRT penetration 62C) to measure imposed leakage during the supplemental test and two gages to measure containment gage pressure. All temporary instrumentation was calibrated to the requirements of Reference 4 prior to the ILRT and performed well during the test. Permanent plant instrumentation was used to measure containment sump and pressurizer water levels. Water quantities were tracked since a correction to calculated leakage rate may be required if total water inventory increases during the ILRT (a water injection is equivalent to a negative leakage which lowers the calculated leakage rate).



4. PROCEDURES

4.1 Plant Status

Plant systems were aligned for the ILRT as specified in Reference 4 which incorporates both FSAR and operational requirements. Isolation valves were set in the post-LOCA positions specified in the FSAR except where the opposite positions were required to maintain the reactor in a safe shutdown condition. Piping was vented and drained to expose valve seats to containment and outside atmospheres per post-LOCA scenarios. All sources of gas at pressures above containment test pressure were isolated or vented to prevent leakage into the containment free air space during the ILRT. All Type B and C local leakage rate tests, including those on the airlock, were completed prior to the start of ILRT pressurization. Containment sumps were pumped down prior to the start of pressurization. One loop of shutdown cooling was in continuous operation through the entire test period to remove core decay heat. Containment lights and fans were shut off for the test.

Prior to containment closure a temperature survey was performed, with fans off, to confirm the expected trend of drybulb and dewpoint temperatures. An in situ test on the in containment instruments was performed to demonstrate proper functioning with the long field cables connecting instruments to the data system. RTD in situ tests were done using an ice bath and verifying ice point temperature (plus or minus a tolerance) at the data system. Dewpoint temperature sensor in situ tests were performed using a digital temperature/humidity indicator.

The official test copy of Reference 4 documents plant status, including all exceptions to specified conditions. It also documents the completion of all prerequisite activities.

4.2 Pressurization

The containment was pressurized using diesel driven, oil free compressors having an aggregate capacity of about 10,000 SCFM. Compressor discharge hoses were connected to a manifold joining two aftercooler/moisture separator/refrigerated air drier trains. The air driers discharged into a header which was connected to a filter canister and thence to a containment penetration via a flexible spool and temporary isolation valve. The pressurization penetration (No. 58) is located adjacent to the 100 ft. airlock and is dedicated to ILRT and other refueling outage services. Air was cooled and dried to limit temperature rise and prevent saturation since neither condition is conducive to completion of the ILRT in a reasonable time.

Pressurization commenced at about 1:30 p.m. on February 20 and was stopped at about 10:00 a.m. on the 21st when pressure had reached 50.3 PSIG. Pressurization was terminated close to the upper end of the allowable 49.5 - 50.5 PSIG window to ensure that it would be above Pa (49.5 PSIG) at the start of the Type A test. The temporary isolation valve bolted to penetration 58 was closed when pressurization was complete. Containment atmospheric condition data were recorded at 15 minute intervals during pressurization. Figure 1 is a plot of containment pressure (absolute) vs. time during pressurization.

4. PROCEDURES (cont)

4.3 Stabilization, Type A Test and Verification

Following the completion of pressurization, the containment atmosphere was allowed to stabilize for about 4.5 hours prior to starting the Type A test. At the end of the 4.5 hour period (which exceeded the 4 hour minimum required by References 3 and 4) the numerical stabilization criterion listed in Reference 4 had been met. Temperature change during stabilization is listed in Table 2 and graphed in Figure 2. Also air mass was decreasing linearly with time as illustrated in Figure 3. Since true leakage rate is assumed to be constant, the linear mass/time plot is a judgmental precondition for starting the Type A test. It shows that temperature change is sufficiently uniform to allow calculating containment mean temperature as the volume weighted average of 24 measured temperatures. The numerical stabilization data and start of test criterion from Reference 4 are listed below.

Temperature at the end of stabilization (1430)	76.865 degrees F
Temperature four (4) hours earlier (1030)	79.206 degrees F
Difference	2.341
Average rate of change (1030-1430) = $2.341/4$	= 0.585 degrees F/hour

Temperature at the end of stabilization (1430)	76.865 degrees F
Temperature one (1) hour earlier (1330)	77.121 degrees F
Difference	0.256
Average rate of change (1330-1430) = $0.256/1$	= 0.256 degrees F/hour

Difference between average rate of change over
last four (4) hours and last hour $0.585 - 0.256 = 0.329$ degrees F/hour

The maximum allowable value of the above difference is 0.5 degrees F/hour. Since 0.329 is less than 0.5, the numerical stabilization criterion is met.

Containment atmospheric condition data were recorded at fifteen (15) minute intervals throughout stabilization as well as the Type A and verification tests.

The Type A test commenced at 2:30 p.m. on February 21 and was completed in eight (8) hours (at 10:30 p.m.). Containment gage pressure at the start of the test was 49.9 PSIG and decreased (principally as a result of temperature decrease) to 49.8 PSIG over the eight (8) hour period. Pressurizer and sump water levels were recorded at hourly intervals throughout the Type A test (as well as during pressurization, stabilization and verification) to provide data which might later be required to calculate an addition to leakage rate UCL.

Following the completion of the Type A test, an 8.15 SCFM (0.103 wt.%/day) controlled leak was established through the flowmeter connected to penetration 62C. The flowmeter indication was stabilized at about 10:45 p.m. and the verification test was commenced at midnight following a one hour waiting period as required by References 3 and 4. The verification test was concluded at 4:00 a.m. on February 22.

4. PROCEDURES (cont)

4.3 Stabilization, Type A Test and Verification (cont)

Containment depressurization commenced following an evaluation of a sample release for airborne radiation. The depressurization path was through a silencer which branched off a tee in the pressurization line. Depressurization started at about 9:00 a.m. on February 22 and required about sixteen (16) hours to complete. Containment systems and other plant systems modified for the ILRT were restored to normal following depressurization.



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5. RESULTS

5.1 Type A Test

The acceptance criteria specified in Reference 4 were met well before the completion of the 8 hour test. The end of test leakage rate values and acceptance limits are listed below.

95% UCL on total time leakage rate	0.066 wt.%/day
Acceptance limit	0.075 wt.%/day
Total time calculated rate extrapolated to 24 hours	<0.010 wt.%/day
Acceptance limit	0.075 wt.%/day
Mean of measured leakage rates over the final 5 hours of the test	0.028 wt.%/day
Acceptance limit	0.100 wt.%/day

Acceptance limits are based on the maximum allowable leakage rate of 0.1 wt.%/day specified in the Technical Specifications. For return to power following an outage, the as left leakage rate must be less than 75% (per Reference 1) of the maximum allowable rate. The remaining 25% provides a margin for deterioration of the leakage boundary during the subsequent operating cycle. The 75% criterion is applied by Reference 3 to both the UCL and extrapolated rate values. Since the mean of the measured rates is normally less than the UCL, the third criterion is generally not a factor in acceptance. The UCL rate shown above is the final as left value since penalties for penetrations with non-standard alignments add to a very small value and there were no changes in containment water inventory.

As left minimum pathway leakage rates for penetrations with non-standard alignments are listed below.

<u>Penetration</u>	<u>Function</u>	<u>Minimum Pathway Leakage, SCCM</u>
58	ILRT Pressurization	9
62B	ILRT Pressure Sense	2
62C	ILRT Verification Flow	2
67	Long Term Recirculation	2
26	Shutdown Cooling	18
27	Shutdown Cooling	4
	Sum	37 SCCM

Equivalent rate in SCFD = $37 \times 60 \times 24 / 28317 = 1.882$ SCFD

Rate in %/day = $1.882 / 11.4 \times 10^6 = 0.00002$ wt.%/day

Where 11.4×10^6 ft.³ is the number of standard cubic feet of air in the containment at end of test conditions of 64.05 PSIA and 75.8 degrees F.



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5. RESULTS (cont)

5.1 Type A Test (cont)

The non standard alignment resulted from penetration 58, 62B and 62C being used for ILRT; and penetration 67 being isolated to prevent backflow through in-containment boundary valve and out the in-containment vent; as well as requiring the use of penetrations 26 and 27 to maintain one-loop of shutdown-cooling in service and one in standby.

Table 3 lists air mass and leakage rates (measured, calculated and UCL) for each of the thirty-three (33) data sets recorded during the 8 hour test. The extrapolated rate is determined by manually extrapolating the final twenty-one (21) calculated leakage rates out to twenty-four (24) hours. The final twenty-one (21) points show a generally falling trend. The net effect is an extrapolated rate below 0.01 wt.%/day. How much below depends on the method of extrapolation which is not defined in Reference 3. The mean of the measured rates is manually calculated using the final twenty-one (21) measured rate values.

The air mass values listed in Table 3 are graphed in Figure 4. The various lines on the graph are annotated. The air mass decreased linearly with time as expected. Scatter is small relative to the already small allowable loss in air mass over the test period.

Containment mean temperature, total pressure and mean vapor pressure are listed in Table 4 and plotted in Figures 5, 6 and 7. These parameters decreased smoothly with time. While vapor pressure appears to show some scatter, this would not be noticeable if the plot were to the same scale as that for total pressure. The narrower range for vapor pressure was selected to show the trend over the test period.

The changes in total time leakage rate and UCL with increasing test duration are illustrated in Figure 8. The calculated rate changes rather little (relative to an already small L_a) after the initial three (3) hours of test. The UCL is asymptotic to calculated rate as is typical. The large difference between calculated rate and UCL is the result of the conservative approach to UCL taken in BN-TOP-1 (Reference 3).

The calculated as found leakage rate *UCL) is 0.067 wt.%/day. This is the sum of the as left rate (UCL) plus 0.0005 wt.%/day improvements in minimum pathway leakage made during the Type B and C local testing program. The improvement is derived below.

<u>Penetration</u>	<u>Improvement</u>	<u>Penetration</u>	<u>Improvement</u>
6	8 SCCM	36	10 SCCM
22	8	40	1
25A	8	42A	10
27	2	42B	582
29	7	59	322
30	128	60	8
31	8	61	8
33	8	72	10
34	8	77	3
35	10	78	68



5. RESULTS (cont)

5.1 Type A Test (cont)

Total improvement = 1217 SCCM

$$= 1217 \times 60 \times 24 / 28317 = 61.89 \text{ SCFD}$$

Rate in %/day = $100\% \times 61.89 / 11.4 \times 10^6$ (per as left calc.) = 0.00054 wt.%/day

As found leakage rate (UCL) = $0.066 + 0.00054 = 0.067 \text{ wt.}/\text{day}$

5.2 Verification Test

Verification test results are listed in Table 5 and graphed in Figure 9. As indicated by both the table and graph, the calculated leakage rate is between the upper and lower limits. The final results and acceptance limits are listed below.

Upper Limit Rate	0.139 wt.%/Day
Total Time Calculated Rate	0.099 wt.%/Day
Theoretical Rate	0.114 wt.%/Day
Lower Limit Rate	0.089 wt.%/Day

The theoretical rate is the total time calculated leakage rate at the end of the 8 hour test, 0.011 wt.%/day, plus the imposed rate, 0.103 wt.%/day. The upper and lower limits are set at 0.025 wt.%/day (25% of the maximum allowable leakage rate per Reference 3) above and below the theoretical rate.

5.3 Mass Point Results

Mass point calculation results are listed for information in Tables 6 and 7. The mass point calculated rate is the slope of the line fitted to the air mass/time data by the method of least squares. Mass point UCL is the upper 95% confidence limit on the slope (considering slope to be a positive number such that the absolute value of the UCL exceeds the absolute value of the slope). The calculated mass point leakage rate is 0.020 wt.%/day and the 95% UCL is 0.023. The mass point rate is in fact quite close to the total time rate since both rates are very small relative to the already small allowable leakage rate. The mass point UCL is quite close to the calculated rate which is typical and well below the total time UCL. The calculated verification leakage rate is in the lower part of the band as is the case for the total time verification leakage rate.

6. REFERENCES

1. Code of Federal Regulations, Title 10, Part 50, Appendix J, Reactor Containment Leakage Testing For Water Cooled Power Reactors.
2. ANSI N45.4-1972, Leakage Rate Testing Of Containment Structures For Nuclear Reactors.
3. Bechtel Topical Report BN-TOP-1, Testing Criteria For Integrated Leakage Rate Testing Of Primary Containment Structures For Nuclear Power Plants, Revision 1, 1972.
4. PVNGS Surveillance Procedure 73ST-1CL02, Integrated Leak Rate Test, Revision 0.

Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLES AND FIGURES



Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 1

DRYBULB AND DEWPOINT TEMPERATURE SENSOR LOCATIONS
AND
VOLUME FRACTIONS

SENSOR TYPE	SENSOR No.	ELEVATION	AZIMUTH	RADIUS	VOLUME FRACTION
=====					
		(1)	(2)	(3)	
DRYBULB	1	272 FT	60 DEG	33 FT	.032
DRYBULB	2	260 FT	120 DEG	33 FT	.040
DRYBULB	3	250 FT	180 DEG	51 FT	.044
DRYBULB	4	241 FT	240 DEG	51 FT	.045
DRYBULB	5	233 FT	300 DEG	51 FT	.046
DRYBULB	6	225 FT	0 DEG	51 FT	.048
DRYBULB	7	217 FT	60 DEG	51 FT	.049
DRYBULB	8	209 FT	120 DEG	51 FT	.049
DRYBULB	9	201 FT	167 DEG	51 FT	.049
DRYBULB	10	193 FT	205 DEG	51 FT	.050
DRYBULB	11	185 FT	335 DEG	51 FT	.050
DRYBULB	12	177 FT	13 DEG	51 FT	.050
DRYBULB	13	169 FT	153 DEG	47 FT	.050
DRYBULB	14	161 FT	194 DEG	47 FT	.043
DRYBULB	15	153 FT	248 DEG	56 FT	.043
DRYBULB	16	145 FT	45 DEG	62 FT	.045
DRYBULB	17	136 FT	180 DEG	57 FT	.037
DRYBULB	18	128 FT	55 DEG	58 FT	.034
DRYBULB	19	120 FT	220 DEG	59 FT	.034
DRYBULB	20	112 FT	335 DEG	59 FT	.033
DRYBULB	21	104 FT	45 DEG	53 FT	.033
DRYBULB	22	96 FT	155 DEG	69 FT	.032
DRYBULB	23	68 FT	225 DEG	60 FT	.039
DRYBULB	24 (4)	125 FT	99 DEG	24 FT	.025
DEWPOINT	1	260 FT	120 DEG	33 FT	.161
DEWPOINT	2	225 FT	0 DEG	51 FT	.192
DEWPOINT	3	193 FT	205 DEG	51 FT	.199
DEWPOINT	4	161 FT	194 DEG	47 FT	.181
DEWPOINT	5	128 FT	55 DEG	58 FT	.148
DEWPOINT	6	96 FT	155 DEG	69 FT	.119

(1) Ref: Base Mat - 80'; Refuel Floor - 140'; Springline - 213.5';
Soffit 286.5'

(2) Ref: Plant North - 0 degrees

(3) Ref: Containment Vertical Centerline; Inside Radius - 73'

(4) RTD 24 Located in Refuel Cavity



Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 2

PVNGS UNIT1-1990-ILRT-STABILIZATION

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	1000	221	80.6350	64.6475	0.3033	851491.4
2	1015	221	79.8134	64.5338	0.3013	851308.1
3	1030	221	79.2057	64.4641	0.3008	851349.6
4	1045	221	78.7712	64.4156	0.2993	851413.4
5	1100	221	78.4506	64.3794	0.2985	851450.1
6	1115	221	78.2072	64.3506	0.2968	851474.4
7	1130	221	78.0022	64.3269	0.2972	851479.4
8	1145	221	77.8400	64.3066	0.2967	851473.2
9	1200	221	77.6973	64.2894	0.2960	851479.6
10	1215	221	77.5749	64.2743	0.2957	851475.6
11	1230	221	77.4644	64.2607	0.2955	851472.5
12	1245	221	77.3671	64.2487	0.2947	851477.4
13	1300	221	77.2792	64.2378	0.2950	851468.4
14	1315	221	77.1962	64.2277	0.2952	851463.0
15	1330	221	77.1213	64.2185	0.2947	851465.2
16	1345	221	77.0513	64.2098	0.2947	851461.0
17	1400	221	76.9846	64.2016	0.2946	851458.5
18	1415	221	76.9267	64.1937	0.2941	851452.1
19	1430	221	76.8647	64.1861	0.2938	851452.4

Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 3

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

TOTAL TIME LEAKAGE RATE REPORT

data set	time	date	elapsed time (hrs)	dry air mass (lbm)	measured rate (%/day)	leakage rate (%/day)	ucl rate (%/day)
1	1430	221	0.00	851452.4	0.0000	0.0000	0.0000
2	1445	221	0.25	851436.3	0.1828	0.1828	0.1828
3	1500	221	0.50	851445.8	0.0377	0.0377	0.0377
4	1515	221	0.75	851428.4	0.0903	0.0573	0.8395
5	1530	221	1.00	851442.5	0.0281	0.0230	0.3116
6	1545	221	1.25	851427.9	0.0555	0.0260	0.2356
7	1600	221	1.50	851436.8	0.0295	0.0153	0.1769
8	1615	221	1.75	851427.1	0.0409	0.0153	0.1561
9	1630	221	2.00	851429.6	0.0323	0.0124	0.1370
10	1645	221	2.25	851421.5	0.0388	0.0136	0.1287
11	1700	221	2.50	851430.9	0.0243	0.0097	0.1150
12	1715	221	2.75	851407.5	0.0461	0.0143	0.1163
13	1730	221	3.00	851403.1	0.0464	0.0180	0.1163
14	1745	221	3.25	851414.8	0.0326	0.0172	0.1101
15	1800	221	3.50	851410.6	0.0337	0.0171	0.1056
16	1815	221	3.75	851411.3	0.0310	0.0164	0.1010
17	1830	221	4.00	851406.2	0.0326	0.0164	0.0977
18	1845	221	4.25	851416.7	0.0237	0.0146	0.0925
19	1900	221	4.50	851407.3	0.0283	0.0141	0.0894
20	1915	221	4.75	851413.1	0.0234	0.0129	0.0855
21	1930	221	5.00	851400.9	0.0291	0.0130	0.0837
22	1945	221	5.25	851398.3	0.0291	0.0131	0.0821
23	2000	221	5.50	851402.3	0.0257	0.0127	0.0799
24	2015	221	5.75	851399.4	0.0260	0.0125	0.0780
25	2030	221	6.00	851393.3	0.0278	0.0126	0.0768
26	2045	221	6.25	851401.9	0.0228	0.0120	0.0747
27	2100	221	6.50	851398.0	0.0236	0.0117	0.0730
28	2115	221	6.75	851403.3	0.0205	0.0109	0.0710
29	2130	221	7.00	851385.1	0.0271	0.0112	0.0703
30	2145	221	7.25	851404.9	0.0185	0.0104	0.0683
31	2200	221	7.50	851381.7	0.0266	0.0107	0.0678
32	2215	221	7.75	851373.4	0.0287	0.0113	0.0677
33	2230	221	8.00	851393.2	0.0209	0.0109	0.0663

Allowable leakage rate, La = 0.1000 %/day
 75% La = 0.0750 %/day
 Total time leakage rate = 0.0109 %/day
 Total time UCL = 0.0663 %/day

Palo Verde Nuclear Generating Station
1990 ILRT Final Report.

TABLE 4

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	1430	221	76.8647	64.1861	0.2938	851452.4
2	1445	221	76.8157	64.1788	0.2936	851436.3
3	1500	221	76.7502	64.1719	0.2938	851445.8
4	1515	221	76.7085	64.1656	0.2938	851428.4
5	1530	221	76.6545	64.1594	0.2929	851442.5
6	1545	221	76.6117	64.1533	0.2930	851427.9
7	1600	221	76.5616	64.1476	0.2926	851436.8
8	1615	221	76.5228	64.1421	0.2925	851427.1
9	1630	221	76.4765	64.1365	0.2922	851429.6
10	1645	221	76.4390	64.1315	0.2923	851421.5
11	1700	221	76.3959	64.1266	0.2918	851430.9
12	1715	221	76.3700	64.1218	0.2918	851407.5
13	1730	221	76.3341	64.1169	0.2915	851403.1
14	1745	221	76.2917	64.1125	0.2913	851414.8
15	1800	221	76.2570	64.1083	0.2915	851410.6
16	1815	221	76.2241	64.1039	0.2910	851411.3
17	1830	221	76.1933	64.0999	0.2911	851406.2
18	1845	221	76.1568	64.0959	0.2906	851416.7
19	1900	221	76.1332	64.0922	0.2904	851407.3
20	1915	221	76.1024	64.0884	0.2899	851413.1
21	1930	221	76.0760	64.0845	0.2900	851400.9
22	1945	221	76.0466	64.0805	0.2897	851398.3
23	2000	221	76.0166	64.0772	0.2897	851402.3
24	2015	221	75.9929	64.0738	0.2893	851399.4
25	2030	221	75.9664	64.0705	0.2897	851393.3
26	2045	221	75.9398	64.0672	0.2889	851401.9
27	2100	221	75.9164	64.0642	0.2890	851398.0
28	2115	221	75.8886	64.0610	0.2887	851403.3
29	2130	221	75.8722	64.0580	0.2890	851385.1
30	2145	221	75.8402	64.0551	0.2884	851404.9
31	2200	221	75.8295	64.0522	0.2885	851381.7
32	2215	221	75.8119	64.0491	0.2881	851373.4
33	2230	221	75.7769	64.0462	0.2879	851393.2



Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 5

PVNGS UNIT I-1990 ILRT-VERIFICATION
TOTAL TIME LEAKAGE RATE REPORT

VERIFICATION

data set	time	date	elapsed time (hrs)	dry air mass (lbm)	measured rate (%/day)	leakage rate (%/day)
1	0	222	0.00	851339.0	0.0000	0.000
2	15	222	0.25	851324.9	0.1589	0.159
3	30	222	0.50	851313.5	0.1436	0.144
4	45	222	0.75	851303.9	0.1317	0.131
5	100	222	1.00	851287.3	0.1456	0.137
6	115	222	1.25	851289.1	0.1124	0.120
7	130	222	1.50	851277.3	0.1159	0.114
8	145	222	1.75	851264.9	0.1194	0.112
9	200	222	2.00	851264.2	0.1054	0.105
10	215	222	2.25	851251.5	0.1096	0.103
11	230	222	2.50	851237.9	0.1140	0.103
12	245	222	2.75	851245.3	0.0960	0.097
13	300	222	3.00	851226.5	0.1057	0.096
14	315	222	3.25	851208.3	0.1134	0.097
15	330	222	3.50	851202.8	0.1097	0.098
16	345	222	3.75	851194.9	0.1083	0.098
17	400	222	4.00	851175.9	0.1149	0.099

Upper limit on leakage rate = 0.1386 %/day
Total time leakage rate = 0.0991 %/day
Lower limit on leakage rate = 0.0886 %/day



Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 6

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

MASS POINT LEAKAGE RATE REPORT

data set	time	date	elapsed time (hrs)	dry air mass (lbm)	leakage rate (%/day)	ucl rate (%/day)
1	1430	221	0.00	851452.4	0.0000	0.0000
2	1445	221	0.25	851436.3	0.1828	0.1828
3	1500	221	0.50	851445.8	0.0377	0.7548
4	1515	221	0.75	851428.4	0.0705	0.1941
5	1530	221	1.00	851442.5	0.0313	0.1094
6	1545	221	1.25	851427.9	0.0392	0.0865
7	1600	221	1.50	851436.8	0.0271	0.0617
8	1615	221	1.75	851427.1	0.0289	0.0538
9	1630	221	2.00	851429.6	0.0259	0.0450
10	1645	221	2.25	851421.5	0.0279	0.0431
11	1700	221	2.50	851430.9	0.0229	0.0362
12	1715	221	2.75	851407.5	0.0293	0.0422
13	1730	221	3.00	851403.1	0.0339	0.0456
14	1745	221	3.25	851414.8	0.0320	0.0421
15	1800	221	3.50	851410.6	0.0311	0.0399
16	1815	221	3.75	851411.3	0.0297	0.0375
17	1830	221	4.00	851406.2	0.0293	0.0361
18	1845	221	4.25	851416.7	0.0264	0.0331
19	1900	221	4.50	851407.3	0.0256	0.0316
20	1915	221	4.75	851413.1	0.0237	0.0294
21	1930	221	5.00	851400.9	0.0238	0.0289
22	1945	221	5.25	851398.3	0.0239	0.0286
23	2000	221	5.50	851402.3	0.0232	0.0276
24	2015	221	5.75	851399.4	0.0228	0.0268
25	2030	221	6.00	851393.3	0.0229	0.0266
26	2045	221	6.25	851401.9	0.0220	0.0255
27	2100	221	6.50	851398.0	0.0214	0.0247
28	2115	221	6.75	851403.3	0.0204	0.0236
29	2130	221	7.00	851385.1	0.0208	0.0238
30	2145	221	7.25	851404.9	0.0195	0.0226
31	2200	221	7.50	851381.7	0.0200	0.0229
32	2215	221	7.75	851373.4	0.0208	0.0236
33	2230	221	8.00	851393.2	0.0201	0.0229

Allowable leakage rate, La = 0.1000 %/day

75% La = 0.0750 %/day

Mass point leakage rate = 0.0201 %/day

Mass point UCL = 0.0229 %/day

Palo Verde Nuclear Generating Station
1990 ILRT Final Report

TABLE 7

PVNGS UNIT I-1990 ILRT-VERIFICATION
MASS POINT LEAKAGE RATE REPORT

VERIFICATION

data set	time	date	elapsed time (hrs)	dry air mass (lbm)	leakage rate (%/day)
1	0	222	0.00	851339.0	0.0000
2	15	222	0.25	851324.9	0.1589
3	30	222	0.50	851313.5	0.1436
4	45	222	0.75	851303.9	0.1314
5	100	222	1.00	851287.3	0.1401
6	115	222	1.25	851289.1	0.1197
7	130	222	1.50	851277.3	0.1138
8	145	222	1.75	851264.9	0.1136
9	200	222	2.00	851264.2	0.1065
10	215	222	2.25	851251.5	0.1048
11	230	222	2.50	851237.9	0.1061
12	245	222	2.75	851245.3	0.0996
13	300	222	3.00	851226.5	0.0993
14	315	222	3.25	851208.3	0.1022
15	330	222	3.50	851202.8	0.1031
16	345	222	3.75	851194.9	0.1034
17	400	222	4.00	851175.9	0.1057

Upper limit on leakage rate = 0.1478 %/day
Mass point leakage rate = 0.1057 %/day
Lower limit on leakage rate = 0.0978 %/day

PUNGS UNIT 1-1990-ILRT-PRESSURIZATION

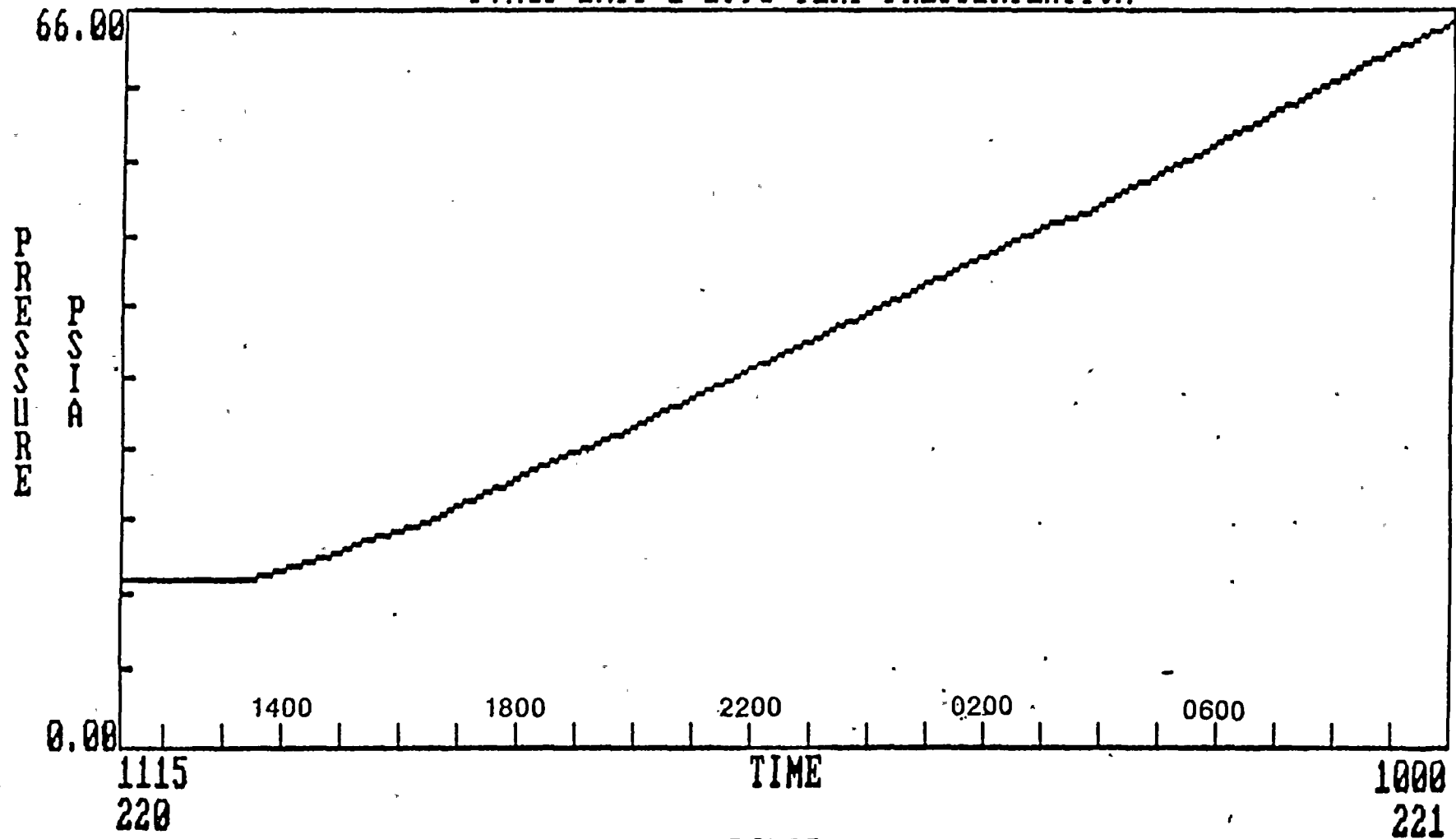


FIGURE 1

CONTAINMENT PRESSURE VS TIME

PRESSURIZATION



4

PUNGS UNIT1-1990-ILRT-STABILIZATION

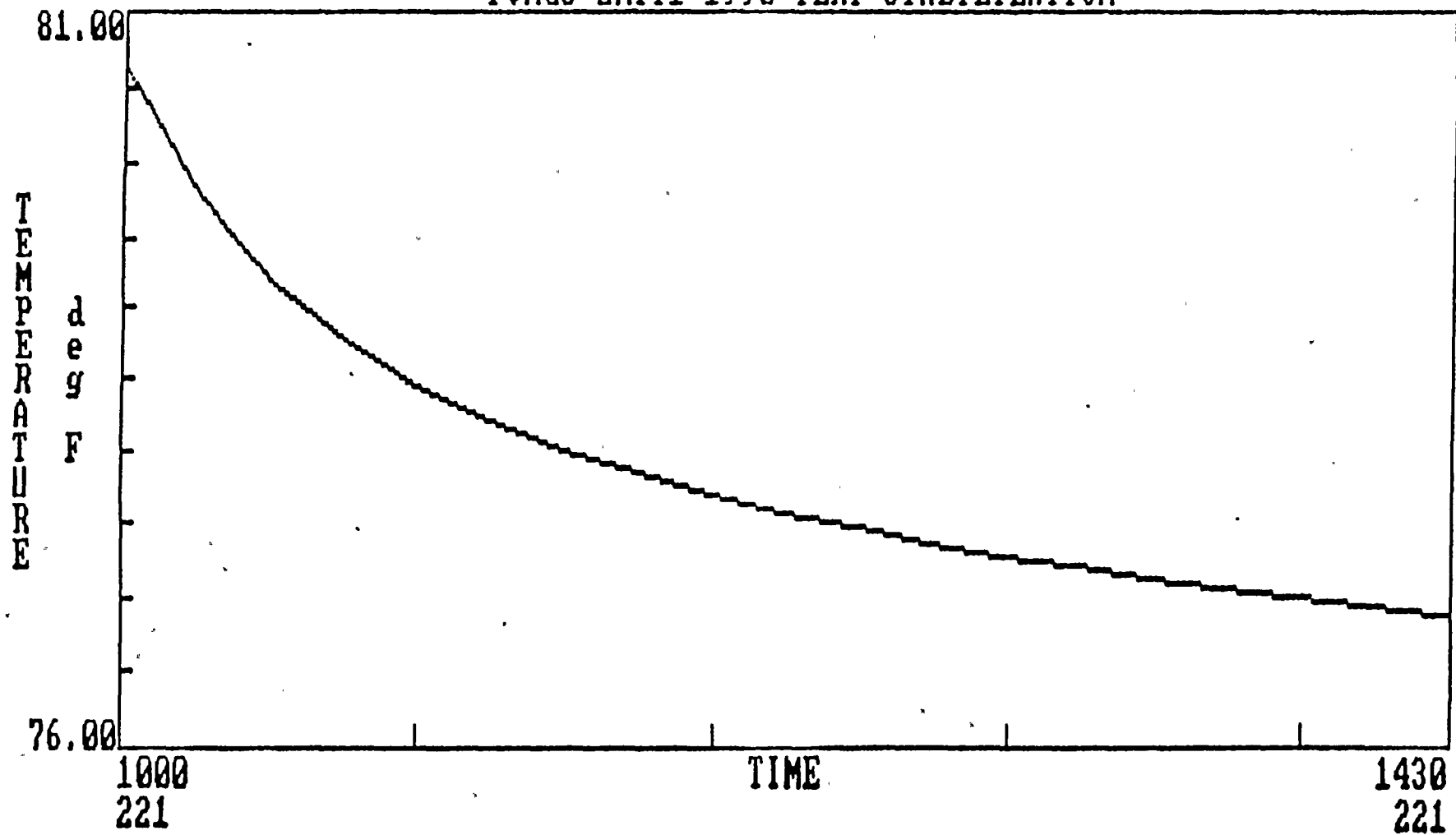


FIGURE 2
TEMPERATURE VS TIME
STABILIZATION



A line graph showing Air Mass (LBM) versus Time. The y-axis is labeled 'AIR MASS LBM' and ranges from 851250 to 851500. The x-axis is labeled 'TIME' and shows time from 1000 221 to 1430 221. The curve starts at 851500, drops sharply to a minimum of about 851300, then rises to a plateau around 851480, and finally shows a slight downward trend towards the end of the period.

FIGURE 3
AIR MASS VS TIME
STABILIZATION

PUNGS UNIT 1-1990-ILRT-TYPE A TEST

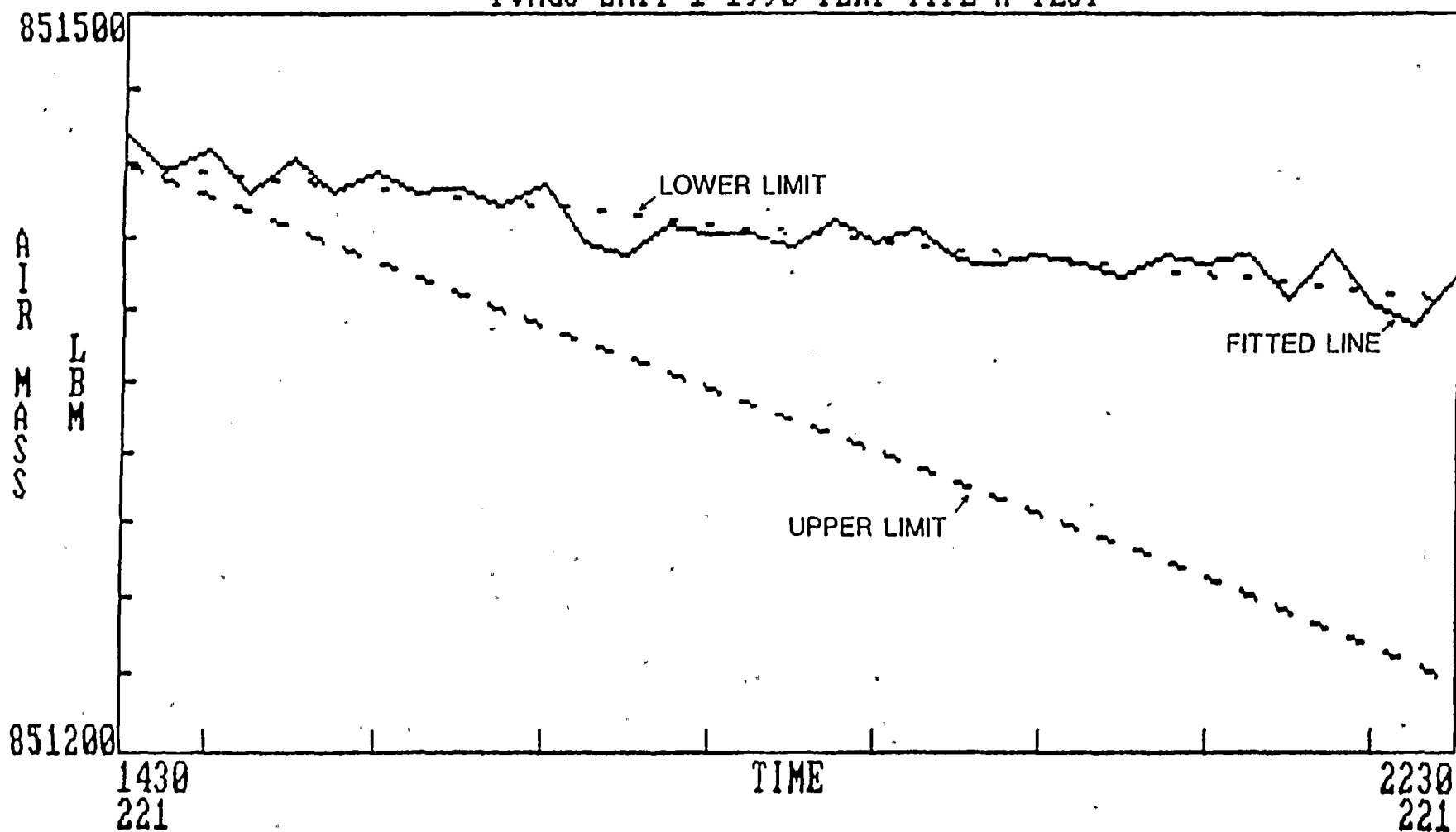


FIGURE 4
AIR MASS VS TIME
TYPE A TEST



PUNGS UNIT 1-1990-ILRT-TYPE A TEST

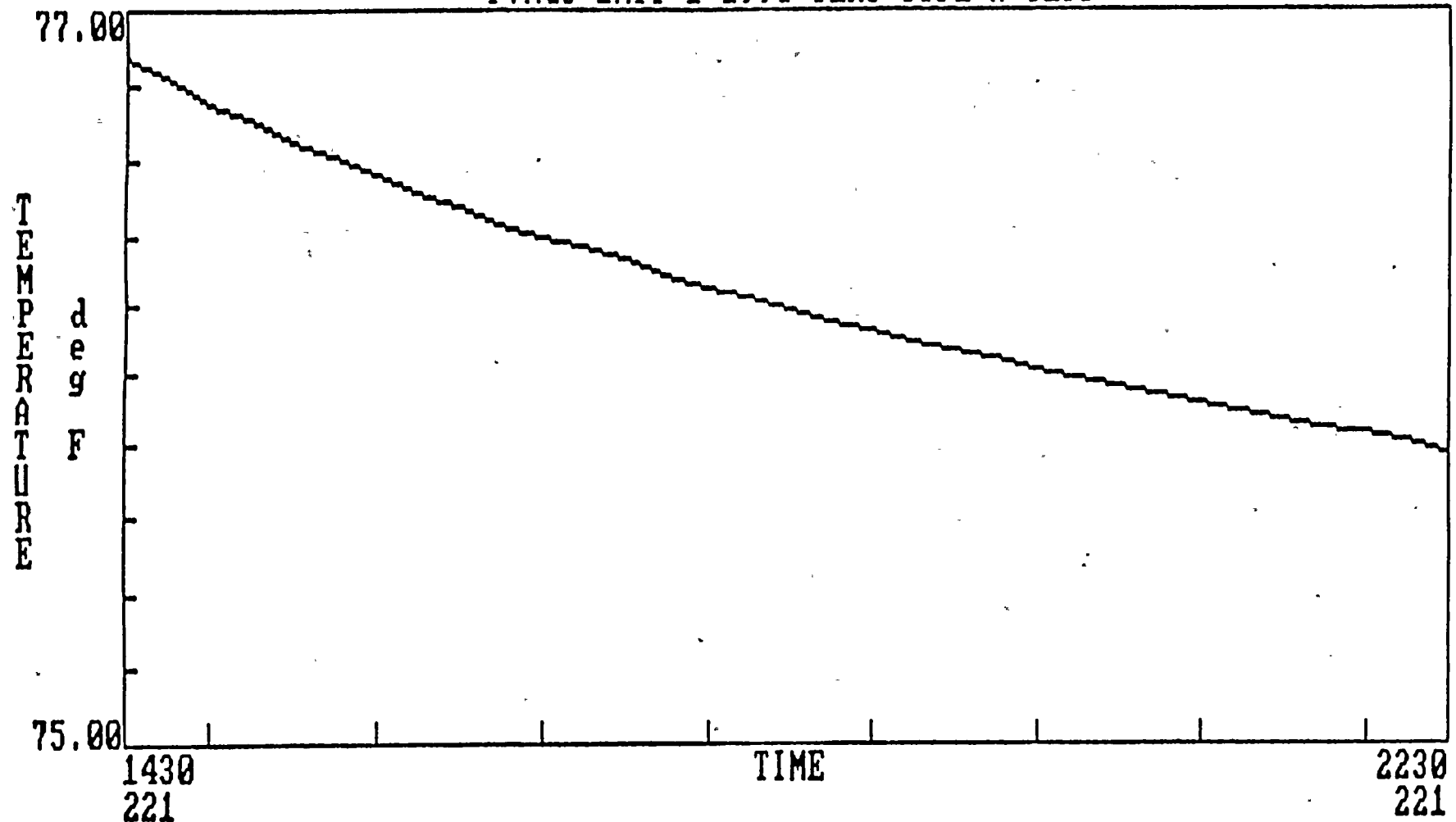


FIGURE 5

MEAN TEMPERATURE VS TIME

TYPE A TEST



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

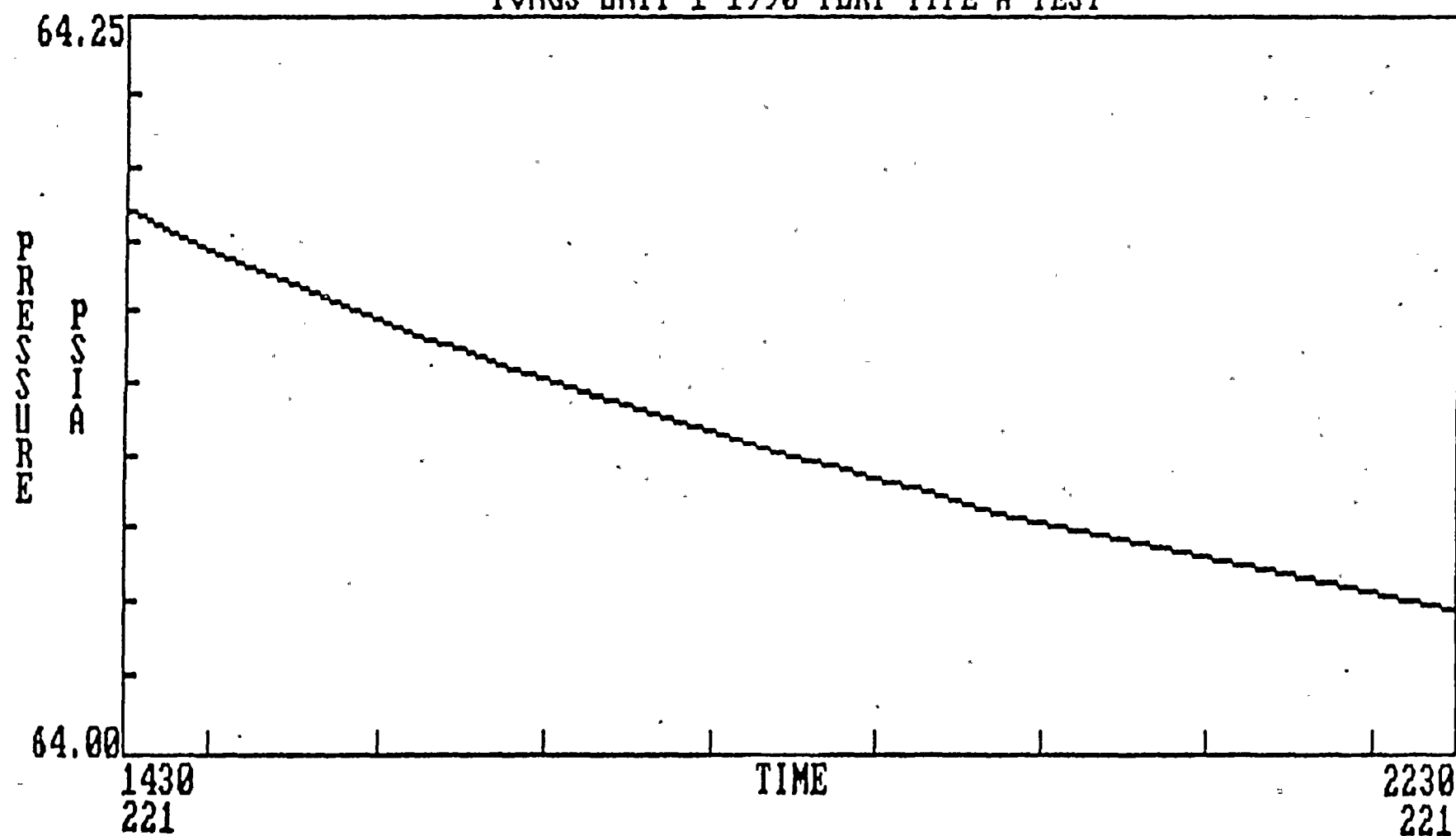


FIGURE 6

ABSOLUTE PRESSURE VS TIME

TYPE A TEST

PUNGS UNIT 1-1990-ILRT-TYPE A TEST

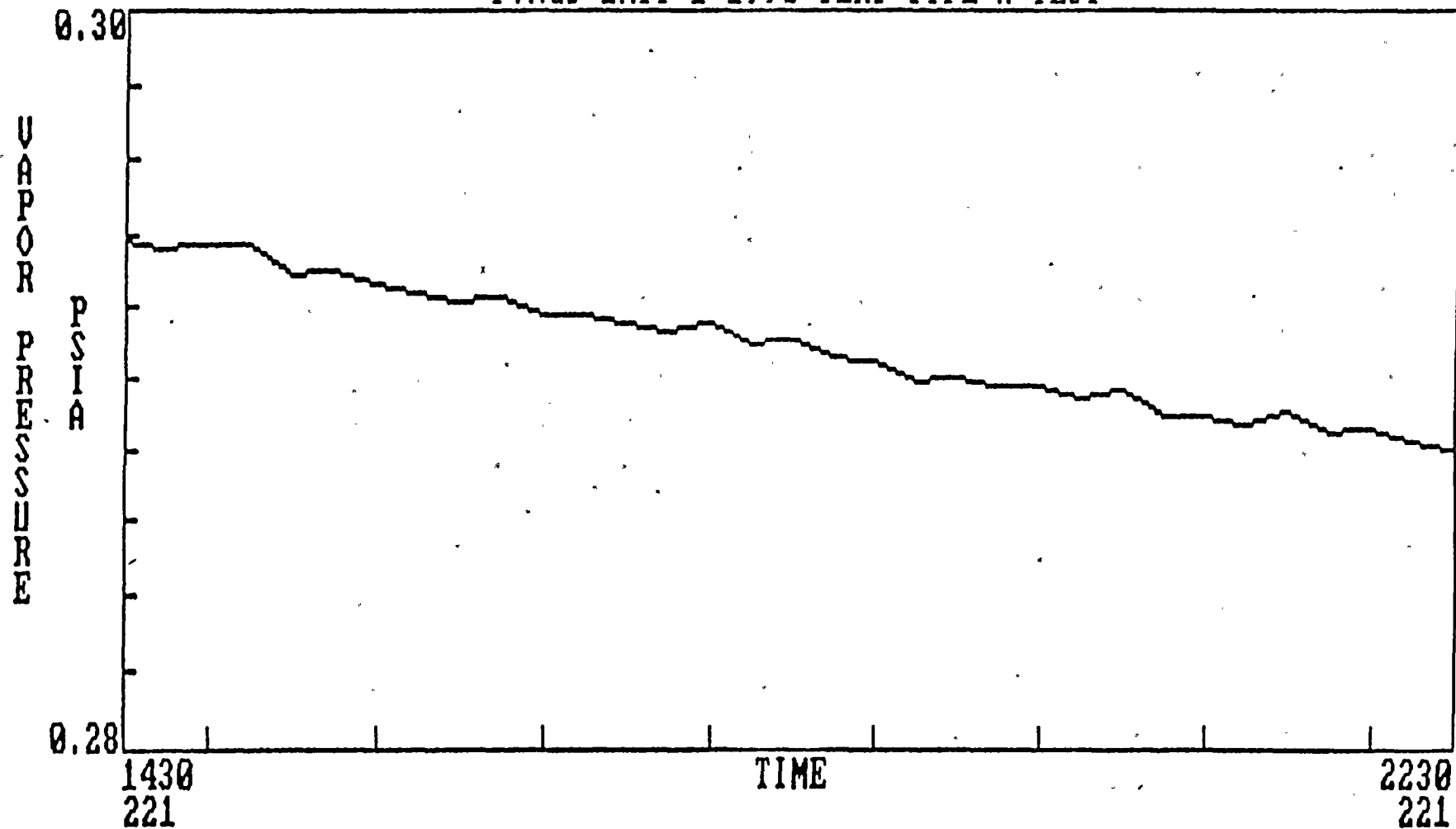


FIGURE 7

MEAN VAPOR PRESSURE VS TIME

TYPE A TEST



PUNGS UNIT 1-1990-ILRT-TYPE A TEST

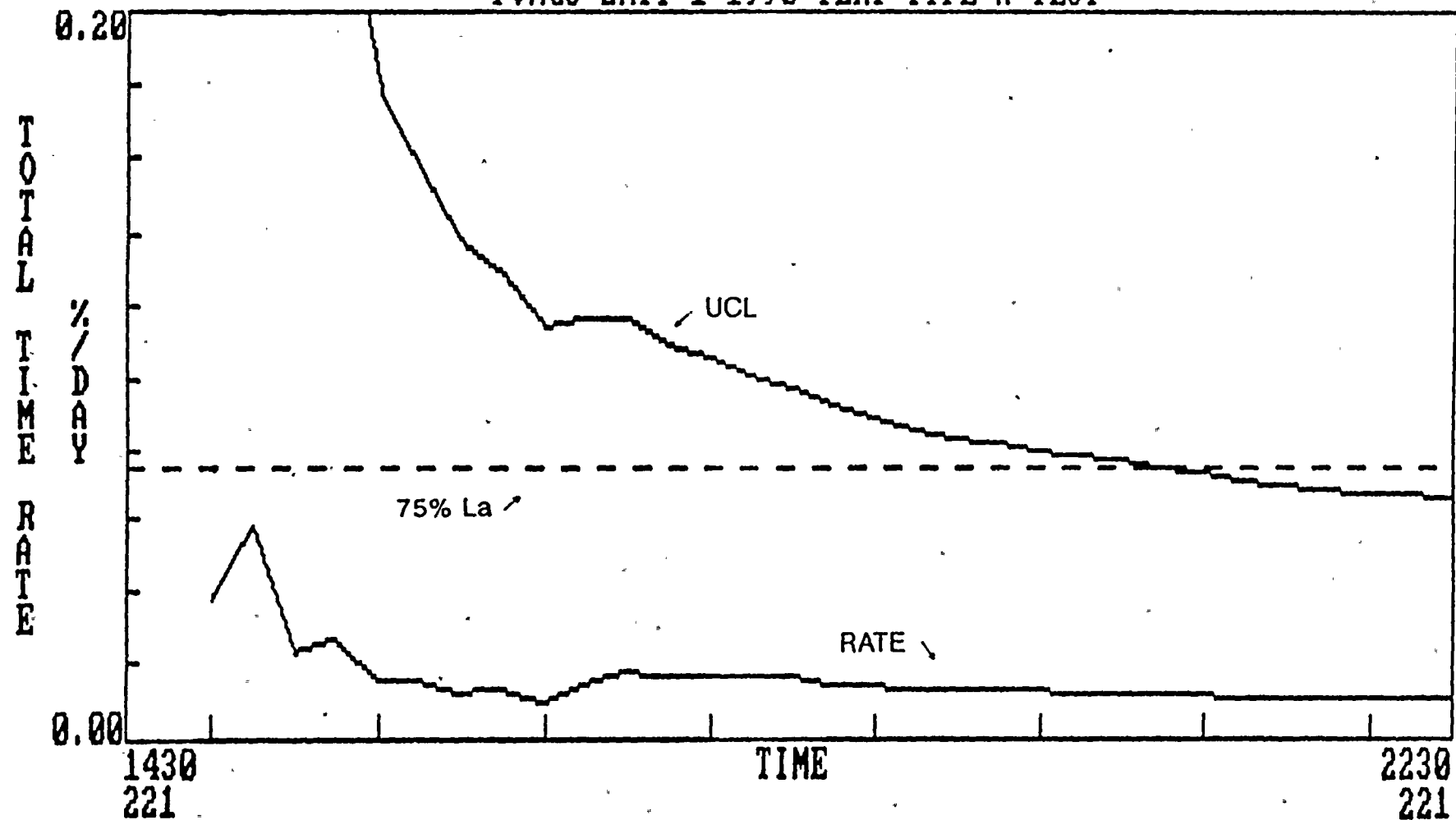


FIGURE 8

TOTAL TIME LEAKAGE RATE AND UCL VS TEST DURATION



PUNGS UNIT I-1990 ILRT-VERIFICATION

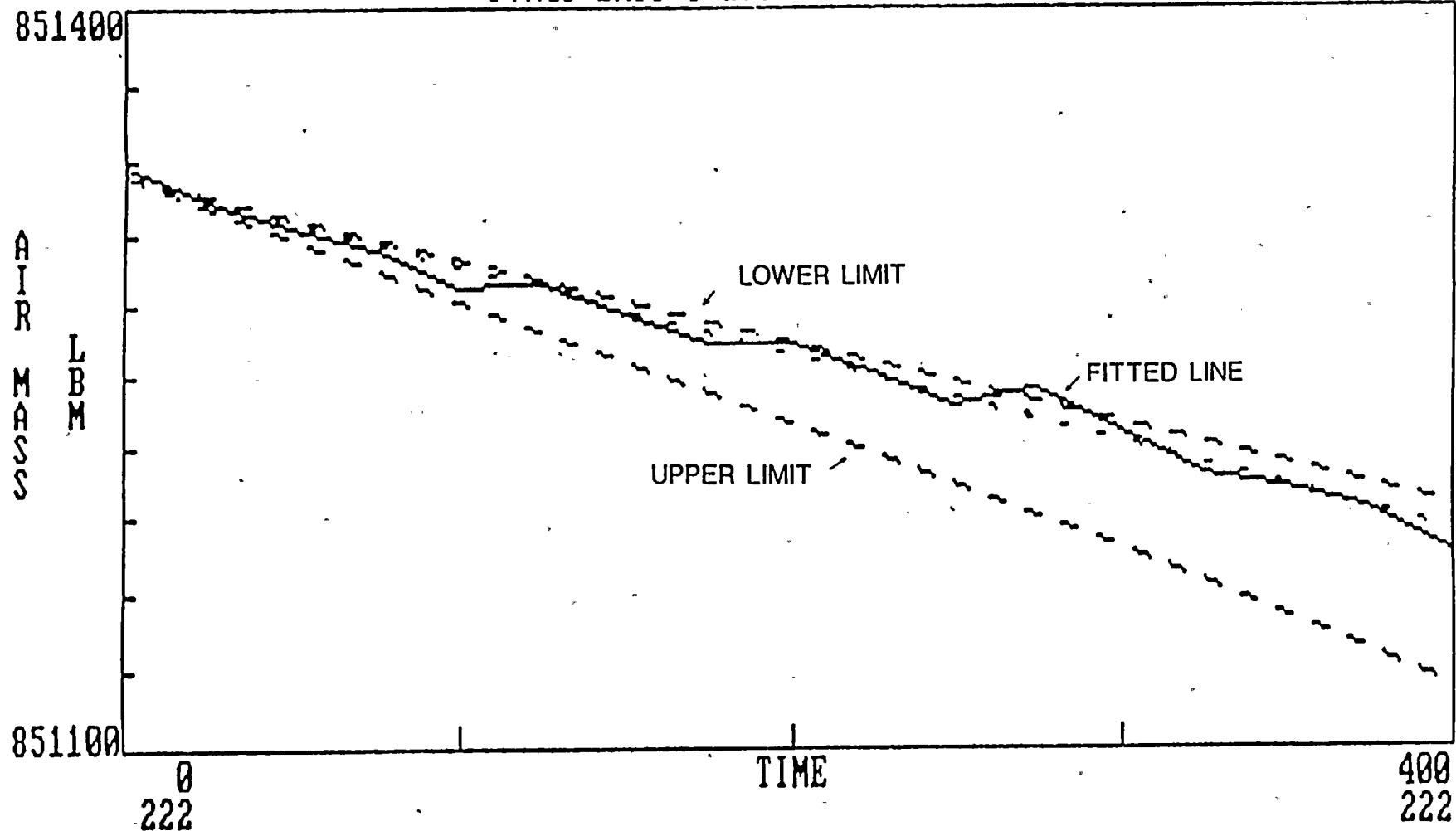


FIGURE 9
AIR MASS VS TIME

Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix I

APPENDIX I

CONTAINMENT DESCRIPTION



APPENDIX I
CONTAINMENT DESCRIPTION

The Palo Verde containment (there are three identical units) is a posttensioned concrete cylinder/dome structure supported on a non-posttensioned base mat. The principal dimensions of the structure are listed below.

Cylinder Height	183 Ft.
Cylinder/Dome Radius	73 Ft.
Concrete Wall Thickness	3.5 Ft.

The containment interior is lined with a 1/4 inch thick steel plate which serves as a leakage barrier. The portion of the containment above the refuel floor (the top of which is 60 feet above the base mat fill concrete surface) is principally open space. The lower portion consists of an outer annular ring (outside the secondary shield), two D-shaped steam generator bays and the refuel/reactor cavity. The reactor cavity extends below the top of the base mat as do the incore instrumentation chase and the personnel access shaft. The open volume below the base mat surface is quite small. The containment free air volume is on the order of 2.6 million cubic feet.

Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix II

APPENDIX II

COMPUTER PROGRAM DESCRIPTION



APPENDIX II

ILRT COMPUTER PROGRAM DESCRIPTION

The BCP ILRT computer program is a structured Basic program which calculates both BN-TOP-1 (total time) and ANSI 56.8 (mass point) leakage rates. The program accepts both keyboard and serial link data input (pre-data such as volume fractions, allowable leakage rate, etc., must be input manually via the keyboard). Data is written to random access files. When a program run is initiated, the user is queried for file information. If a new file is specified, screen prompts request pre-data. If an existing file is specified, the program calculates mean temperatures, mean vapor pressures and air masses and stores these in memory (not in the file). These quantities are recalculated whenever pre-data is changed. Once the file information request is satisfied, the primary menu is displayed on the screen. Subsequent program functions are in response to menu selections. Menu choices allow the following:

- o Manual data entry
- o Serial link data entry
- o Data set correction
- o Pre-data set correction
- o Data set insertion out of sequence (e.g., inputting the 3:15 data after the 3:00 and 3:30 data have been entered)
- o Mass point report
- o Total time report
- o Trend (combined mass/total) report
- o Listing of summary data
- o Data rejection test (per ANSI 56.8)
- o Change start and end time for reports/plots
- o Delete a data set from calculations
- o Restore a deleted data set
- o Enter/exit verification test mode
- o Branch to plot menu
- o Exit to system level

The plot menu allows plotting:

- o Air mass
- o Total time leakage rate
- o Mass point leakage rate
- o Individual or average temperature
- o Individual or average pressure
- o Individual dewpoint temperature or average vapor pressure

Whenever pre-data or data is entered, the screen displays the data and asks the user if the data is correct. If not, the user can correct any data entry. When the user notes that the data is correct, it is written to the data file.



Leakage rate calculations are done in double precision since the regression line constants usually depend on the small difference of large numbers. Computer calculations were manually verified using a data file titled "Check". Check is always run following any program modification.

Various subroutines are modified to suit conditions unique to a particular test. The routine which puts the initial display on the screen is modified to show job title and program revision date. The serial link routine is modified to accommodate the data system output format. The pressure transducer calibration table is changed to incorporate job specific calibration data. The generic program is written for dewpoint temperature inputs which are converted to vapor pressures using the ASME Steam Tables Polynomial. Several routines require modification if relative humidities or wet bulb temperatures are input instead of dewpoint temperatures.

BN-TOP-1 uses a very conservative procedure to calculate total time upper confidence limit. The program calculates the more realistic 95% UCL on the end of test total time calculated leakage rate if the test duration is twenty-four (24) hours or more. Otherwise, it uses the BN-TOP-1 formulation to determine the 97.5% UCL on end of test measured leakage rate.

References:

1. Bechtel Topical Report BN-TOP-1, Testing Criteria For Integrated Leakage Rate Testing Of Primary Containment Structures For Nuclear Power Plants, Revision 1, 1972.
2. ANSI/ANS 56.8-1987, Containment System Leakage Testing Requirements.

APPENDIX III

TEST DATA

1. Pressurization
2. Stabilization
3. Type A Test
4. Verification Stabilization
5. Verification



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix III

PRESSURIZATION

DATA SET



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	1115	220	73.9512	14.3537	0.1752	189980.3
2	1130	220	73.9205	14.3526	0.1754	189972.8
3	1145	220	73.8752	14.3518	0.1752	189980.8
4	1200	220	73.8403	14.3511	0.1753	189983.1
5	1215	220	73.8112	14.3506	0.1752	189987.8
6	1230	220	73.7919	14.3499	0.1752	189985.4
7	1245	220	73.7585	14.3493	0.1754	189987.0
8	1300	220	73.7379	14.3485	0.1756	189980.6
9	1315	220	73.7162	14.3479	0.1757	189978.7
10	1330	220	73.7008	14.3470	0.1757	189972.5
11	1345	220	74.9663	14.6919	0.1759	194132.2
12	1400	220	76.0581	15.1395	0.1776	199687.7
13	1415	220	76.5032	15.5728	0.1799	205270.4
14	1430	220	76.7592	16.0031	0.1811	210891.5
15	1445	220	76.8990	16.4328	0.1822	216547.5
16	1500	220	77.0339	16.8678	0.1828	222281.0
17	1515	220	77.1718	17.3073	0.1835	228067.9
18	1530	220	77.2479	17.7443	0.1837	233851.8
19	1545	220	77.3163	18.1834	0.1839	239666.7
20	1600	220	77.3559	18.6206	0.1853	245450.5
21	1615	220	77.4177	19.0549	0.1861	251194.1
22	1630	220	77.5499	19.5473	0.1870	257673.6
23	1645	220	78.2097	20.2137	0.1902	266173.8
24	1700	220	78.7207	20.9281	0.1925	275378.4
25	1715	220	78.9556	21.6236	0.1952	284455.0
26	1730	220	78.9647	22.2449	0.1975	292666.7
27	1745	220	78.9370	22.8561	0.1992	300773.0
28	1800	220	78.9939	23.4786	0.2012	308977.7
29	1815	220	79.0533	24.1118	0.2028	317325.4
30	1830	220	79.0149	24.6962	0.2046	325081.9
31	1845	220	78.9615	25.2744	0.2053	332780.4
32	1900	220	78.9673	25.8557	0.2063	340479.2
33	1915	220	78.9798	26.4362	0.2077	348158.7
34	1930	220	78.9952	27.0157	0.2090	355823.9
35	1945	220	79.0291	27.5967	0.2096	363504.7
36	2000	220	79.2451	28.2766	0.2125	372341.5
37	2015	220	79.4137	28.9580	0.2141	381240.6
38	2030	220	79.5284	29.6371	0.2177	390116.9
39	2045	220	79.6059	30.3146	0.2194	399021.6
40	2100	220	79.6561	30.9904	0.2204	407930.2
41	2115	220	79.7102	31.6626	0.2220	416778.4
42	2130	220	79.7569	32.3417	0.2244	425712.2
43	2145	220	79.7973	33.0193	0.2261	434638.7
44	2200	220	79.7631	33.6607	0.2291	443128.2
45	2215	220	79.8378	34.3383	0.2307	452026.6
46	2230	220	79.8846	35.0136	0.2328	460907.8
47	2245	220	79.9366	35.6880	0.2335	469790.0
48	2300	220	79.9655	36.3601	0.2360	478637.3
49	2315	220	79.9771	37.0169	0.2376	487307.7
50	2330	220	79.8916	37.6247	0.2395	495414.0
51	2345	220	79.9595	38.2990	0.2412	504263.8
52	0	221	80.0205	38.9730	0.2430	513112.4

53	15	221	80.0761	39.6489	0.2440	522000.9
54	30	221	80.1116	40.3214	0.2453	530856.5
55	45	221	80.1491	40.9950	0.2477	539709.6
56	100	221	80.1828	41.6665	0.2501	548538.9
57	115	221	80.2025	42.3384	0.2511	557403.6
58	130	221	80.2404	43.0143	0.2537	566281.4
59	145	221	80.1982	43.6536	0.2553	574771.7
60	200	221	80.2610	44.3173	0.2570	583471.4
61	215	221	80.1904	44.9252	0.2591	591570.8
62	230	221	80.2344	45.5878	0.2599	600287.3
63	245	221	80.2102	46.2027	0.2605	608448.9
64	300	221	80.1289	46.7662	0.2622	615981.9
65	315	221	79.9204	47.2507	0.2632	622627.6
66	330	221	79.8622	47.7725	0.2642	629596.2
67	345	221	79.8343	48.3028	0.2653	636642.8
68	400	221	79.9492	48.9386	0.2678	644898.5
69	415	221	80.1584	49.6417	0.2700	653931.6
70	430	221	80.2941	50.3321	0.2715	662889.6
71	445	221	80.3747	51.0185	0.2731	671857.6
72	500	221	80.4439	51.7057	0.2751	680841.6
73	515	221	80.5035	52.3918	0.2762	689833.4
74	530	221	80.5390	53.0772	0.2780	698837.1
75	545	221	80.5800	53.7614	0.2794	707819.9
76	600	221	80.6087	54.4434	0.2814	716782.1
77	615	221	80.5600	55.0681	0.2827	725096.9
78	630	221	80.6093	55.7508	0.2850	734035.0
79	645	221	80.6372	56.4088	0.2854	742699.7
80	700	221	80.6497	57.0788	0.2873	751523.4
81	715	221	80.7030	57.7613	0.2893	760454.0
82	730	221	80.7016	58.4073	0.2901	768992.4
83	745	221	80.7432	59.0892	0.2915	777936.5
84	800	221	80.7759	59.7670	0.2938	786826.7
85	815	221	80.8049	60.4428	0.2948	795711.1
86	830	221	80.8139	61.1097	0.2954	804512.8
87	845	221	80.7312	61.6892	0.2965	812288.9
88	900	221	80.6696	62.2695	0.2978	820043.1
89	915	221	80.6692	62.8781	0.2996	828072.9
90	930	221	80.7278	63.5316	0.3004	836619.5
91	945	221	80.7803	64.1929	0.3026	845257.4
92	1000	221	80.6350	64.6475	0.3033	851491.4



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 1

time = 1115 date = 220

sensor	raw data	value
temperature 1	(73.930) =	73.930 deg. F
temperature 2	(74.040) =	74.040 deg. F
temperature 3	(74.160) =	74.160 deg. F
temperature 4	(74.060) =	74.060 deg. F
temperature 5	(73.980) =	73.980 deg. F
temperature 6	(74.080) =	74.080 deg. F
temperature 7	(73.830) =	73.830 deg. F
temperature 8	(73.990) =	73.990 deg. F
temperature 9	(74.210) =	74.210 deg. F
temperature 10	(74.370) =	74.370 deg. F
temperature 11	(74.170) =	74.170 deg. F
temperature 12	(74.170) =	74.170 deg. F
temperature 13	(74.170) =	74.170 deg. F
temperature 14	(74.000) =	74.000 deg. F
temperature 15	(74.190) =	74.190 deg. F
temperature 16	(73.630) =	73.630 deg. F
temperature 17	(73.950) =	73.950 deg. F
temperature 18	(73.810) =	73.810 deg. F
temperature 19	(74.430) =	74.430 deg. F
temperature 20	(73.790) =	73.790 deg. F
temperature 21	(73.360) =	73.360 deg. F
temperature 22	(73.360) =	73.360 deg. F
temperature 23	(72.620) =	72.620 deg. F
temperature 24	(73.930) =	73.930 deg. F
dewpoint 1	(48.790) =	48.790 deg. F , 0.1701 psia
dewpoint 2	(49.440) =	49.440 deg. F , 0.1743 psia
dewpoint 3	(49.170) =	49.170 deg. F , 0.1725 psia
dewpoint 4	(50.310) =	50.310 deg. F , 0.1800 psia
dewpoint 5	(49.990) =	49.990 deg. F , 0.1779 psia
dewpoint 6	(49.850) =	49.850 deg. F , 0.1770 psia
pressure 1	(14.3537) =	14.3537 psia
pressure 2	(14.3537) =	14.3537 psia

weighted averages, volume and air mass,

temperature	=	73.95123 deg. F
pressure	=	14.35370 psia
vapor pressure	=	0.17516 psia
volume	=	2649000 cu. ft.
dry air mass	=	189980.3 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 2

time = 1130 date = 220

sensor	raw data	value
temperature 1	(73.930) =	73.930 deg. F
temperature 2	(74.060) =	74.060 deg. F
temperature 3	(74.120) =	74.120 deg. F
temperature 4	(74.030) =	74.030 deg. F
temperature 5	(73.920) =	73.920 deg. F
temperature 6	(74.100) =	74.100 deg. F
temperature 7	(73.800) =	73.800 deg. F
temperature 8	(73.960) =	73.960 deg. F
temperature 9	(74.160) =	74.160 deg. F
temperature 10	(74.290) =	74.290 deg. F
temperature 11	(74.130) =	74.130 deg. F
temperature 12	(74.110) =	74.110 deg. F
temperature 13	(74.210) =	74.210 deg. F
temperature 14	(73.970) =	73.970 deg. F
temperature 15	(74.170) =	74.170 deg. F
temperature 16	(73.570) =	73.570 deg. F
temperature 17	(73.890) =	73.890 deg. F
temperature 18	(73.770) =	73.770 deg. F
temperature 19	(74.400) =	74.400 deg. F
temperature 20	(73.750) =	73.750 deg. F
temperature 21	(73.330) =	73.330 deg. F
temperature 22	(73.320) =	73.320 deg. F
temperature 23	(72.590) =	72.590 deg. F
temperature 24	(73.930) =	73.930 deg. F
dewpoint 1	(48.970) =	48.970 deg. F , 0.1713 psia
dewpoint 2	(49.510) =	49.510 deg. F , 0.1747 psia
dewpoint 3	(49.180) =	49.180 deg. F , 0.1726 psia
dewpoint 4	(50.320) =	50.320 deg. F , 0.1801 psia
dewpoint 5	(50.010) =	50.010 deg. F , 0.1780 psia
dewpoint 6	(49.800) =	49.800 deg. F , 0.1766 psia
pressure 1	(14.3528) =	14.3528 psia
pressure 2	(14.3526) =	14.3526 psia

weighted averages, volume and air mass

temperature	=	73.92052 deg. F
pressure	=	14.35260 psia
vapor pressure	=	0.17543 psia
volume	=	2649000 cu. ft.
dry air mass	=	189972.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 3

time = 1145 date = 220

sensor	raw data	value
temperature 1	(73.870)	= 73.870 deg. F
temperature 2	(73.970)	= 73.970 deg. F
temperature 3	(74.110)	= 74.110 deg. F
temperature 4	(74.020)	= 74.020 deg. F
temperature 5	(73.900)	= 73.900 deg. F
temperature 6	(74.020)	= 74.020 deg. F
temperature 7	(73.760)	= 73.760 deg. F
temperature 8	(73.940)	= 73.940 deg. F
temperature 9	(74.080)	= 74.080 deg. F
temperature 10	(74.220)	= 74.220 deg. F
temperature 11	(74.080)	= 74.080 deg. F
temperature 12	(74.100)	= 74.100 deg. F
temperature 13	(74.060)	= 74.060 deg. F
temperature 14	(73.920)	= 73.920 deg. F
temperature 15	(74.130)	= 74.130 deg. F
temperature 16	(73.580)	= 73.580 deg. F
temperature 17	(73.850)	= 73.850 deg. F
temperature 18	(73.720)	= 73.720 deg. F
temperature 19	(74.330)	= 74.330 deg. F
temperature 20	(73.730)	= 73.730 deg. F
temperature 21	(73.300)	= 73.300 deg. F
temperature 22	(73.300)	= 73.300 deg. F
temperature 23	(72.570)	= 72.570 deg. F
temperature 24	(73.880)	= 73.880 deg. F
dewpoint 1	(48.840)	= 48.840 deg. F , 0.1704 psia
dewpoint 2	(49.530)	= 49.530 deg. F , 0.1749 psia
dewpoint 3	(49.190)	= 49.190 deg. F , 0.1727 psia
dewpoint 4	(50.300)	= 50.300 deg. F , 0.1800 psia
dewpoint 5	(49.990)	= 49.990 deg. F , 0.1779 psia
dewpoint 6	(49.730)	= 49.730 deg. F , 0.1762 psia
pressure 1	(14.3520)	= 14.3520 psia
pressure 2	(14.3518)	= 14.3518 psia

weighted averages, volume and air mass

temperature	=	73.87519 deg. F
pressure	=	14.35180 psia
vapor pressure	=	0.17524 psia
volume	=	2649000 cu. ft.
dry air mass	=	189980.8 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 4

time = 1200 date = 220

sensor	raw data	value
temperature 1 (73.860)	=	73.860 deg. F
temperature 2 (73.970)	=	73.970 deg. F
temperature 3 (74.050)	=	74.050 deg. F
temperature 4 (73.950)	=	73.950 deg. F
temperature 5 (73.860)	=	73.860 deg. F
temperature 6 (74.020)	=	74.020 deg. F
temperature 7 (73.730)	=	73.730 deg. F
temperature 8 (73.890)	=	73.890 deg. F
temperature 9 (74.030)	=	74.030 deg. F
temperature 10 (74.170)	=	74.170 deg. F
temperature 11 (74.080)	=	74.080 deg. F
temperature 12 (74.070)	=	74.070 deg. F
temperature 13 (74.040)	=	74.040 deg. F
temperature 14 (73.890)	=	73.890 deg. F
temperature 15 (74.090)	=	74.090 deg. F
temperature 16 (73.550)	=	73.550 deg. F
temperature 17 (73.790)	=	73.790 deg. F
temperature 18 (73.680)	=	73.680 deg. F
temperature 19 (74.290)	=	74.290 deg. F
temperature 20 (73.670)	=	73.670 deg. F
temperature 21 (73.280)	=	73.280 deg. F
temperature 22 (73.240)	=	73.240 deg. F
temperature 23 (72.540)	=	72.540 deg. F
temperature 24 (73.860)	=	73.860 deg. F
dewpoint 1 (48.820)	=	48.820 deg. F , 0.1703 psia
dewpoint 2 (49.540)	=	49.540 deg. F , 0.1749 psia
dewpoint 3 (49.200)	=	49.200 deg. F , 0.1727 psia
dewpoint 4 (50.310)	=	50.310 deg. F , 0.1800 psia
dewpoint 5 (49.980)	=	49.980 deg. F , 0.1778 psia
dewpoint 6 (49.790)	=	49.790 deg. F , 0.1766 psia
pressure 1 (14.3513)	=	14.3513 psia
pressure 2 (14.3511)	=	14.3511 psia

weighted averages, volume and air mass

temperature	=	73.84033 deg. F
pressure	=	14.35110 psia
vapor pressure	=	0.17529 psia
volume	=	2649000 cu. ft.
dry air mass	=	189983.1 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 5

time = 1215 date = 220

sensor		raw data		value	
temperature	1	(73.850)	=	73.850 deg. F	
temperature	2	(73.940)	=	73.940 deg. F	
temperature	3	(74.020)	=	74.020 deg. F	
temperature	4	(73.950)	=	73.950 deg. F	
temperature	5	(73.840)	=	73.840 deg. F	
temperature	6	(73.990)	=	73.990 deg. F	
temperature	7	(73.720)	=	73.720 deg. F	
temperature	8	(73.860)	=	73.860 deg. F	
temperature	9	(74.010)	=	74.010 deg. F	
temperature	10	(74.140)	=	74.140 deg. F	
temperature	11	(74.030)	=	74.030 deg. F	
temperature	12	(74.030)	=	74.030 deg. F	
temperature	13	(74.010)	=	74.010 deg. F	
temperature	14	(73.850)	=	73.850 deg. F	
temperature	15	(74.080)	=	74.080 deg. F	
temperature	16	(73.450)	=	73.450 deg. F	
temperature	17	(73.770)	=	73.770 deg. F	
temperature	18	(73.640)	=	73.640 deg. F	
temperature	19	(74.250)	=	74.250 deg. F	
temperature	20	(73.640)	=	73.640 deg. F	
temperature	21	(73.250)	=	73.250 deg. F	
temperature	22	(73.240)	=	73.240 deg. F	
temperature	23	(72.510)	=	72.510 deg. F	
temperature	24	(73.850)	=	73.850 deg. F	
dewpoint	1	(48.760)	=	48.760 deg. F	0.1699 psia
dewpoint	2	(49.470)	=	49.470 deg. F	0.1745 psia
dewpoint	3	(49.210)	=	49.210 deg. F	0.1728 psia
dewpoint	4	(50.330)	=	50.330 deg. F	0.1802 psia
dewpoint	5	(49.990)	=	49.990 deg. F	0.1779 psia
dewpoint	6	(49.820)	=	49.820 deg. F	0.1768 psia
pressure	1	(14.3507)	=	14.3507 psia	
pressure	2	(14.3506)	=	14.3506 psia	

weighted averages, volume and air mass

temperature	=	73.81119 deg. F
pressure	=	14.35060 psia
vapor pressure	=	0.17521 psia
volume	=	2649000 cu. ft.
dry air mass	=	189987.8 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 6

time = 1230 date = 220

sensor	raw data	value
temperature 1	(73.790) =	73.790 deg. F
temperature 2	(73.900) =	73.900 deg. F
temperature 3	(74.040) =	74.040 deg. F
temperature 4	(73.930) =	73.930 deg. F
temperature 5	(73.830) =	73.830 deg. F
temperature 6	(73.960) =	73.960 deg. F
temperature 7	(73.690) =	73.690 deg. F
temperature 8	(73.810) =	73.810 deg. F
temperature 9	(73.980) =	73.980 deg. F
temperature 10	(74.170) =	74.170 deg. F
temperature 11	(74.010) =	74.010 deg. F
temperature 12	(74.010) =	74.010 deg. F
temperature 13	(74.000) =	74.000 deg. F
temperature 14	(73.790) =	73.790 deg. F
temperature 15	(74.080) =	74.080 deg. F
temperature 16	(73.480) =	73.480 deg. F
temperature 17	(73.760) =	73.760 deg. F
temperature 18	(73.620) =	73.620 deg. F
temperature 19	(74.220) =	74.220 deg. F
temperature 20	(73.630) =	73.630 deg. F
temperature 21	(73.220) =	73.220 deg. F
temperature 22	(73.180) =	73.180 deg. F
temperature 23	(72.500) =	72.500 deg. F
temperature 24	(73.830) =	73.830 deg. F
dewpoint 1	(49.010) =	49.010 deg. F , 0.1715 psia
dewpoint 2	(49.530) =	49.530 deg. F , 0.1749 psia
dewpoint 3	(49.190) =	49.190 deg. F , 0.1727 psia
dewpoint 4	(50.350) =	50.350 deg. F , 0.1803 psia
dewpoint 5	(50.000) =	50.000 deg. F , 0.1780 psia
dewpoint 6	(49.370) =	49.370 deg. F , 0.1738 psia
pressure 1	(14.3499) =	14.3499 psia
pressure 2	(14.3499) =	14.3499 psia

weighted averages, volume and air mass

temperature	=	73.79192 deg. F
pressure	=	14.34990 psia
vapor pressure	=	0.17521 psia
volume	=	2649000 cu. ft.
dry air mass	=	189985.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 7

time = 1245 date = 220

sensor	raw data	value
temperature 1	(73.790)	= 73.790 deg. F
temperature 2	(73.890)	= 73.890 deg. F
temperature 3	(73.910)	= 73.910 deg. F
temperature 4	(73.850)	= 73.850 deg. F
temperature 5	(73.780)	= 73.780 deg. F
temperature 6	(73.910)	= 73.910 deg. F
temperature 7	(73.660)	= 73.660 deg. F
temperature 8	(73.840)	= 73.840 deg. F
temperature 9	(73.980)	= 73.980 deg. F
temperature 10	(74.140)	= 74.140 deg. F
temperature 11	(73.990)	= 73.990 deg. F
temperature 12	(73.980)	= 73.980 deg. F
temperature 13	(73.960)	= 73.960 deg. F
temperature 14	(73.780)	= 73.780 deg. F
temperature 15	(74.050)	= 74.050 deg. F
temperature 16	(73.410)	= 73.410 deg. F
temperature 17	(73.720)	= 73.720 deg. F
temperature 18	(73.580)	= 73.580 deg. F
temperature 19	(74.170)	= 74.170 deg. F
temperature 20	(73.620)	= 73.620 deg. F
temperature 21	(73.190)	= 73.190 deg. F
temperature 22	(73.160)	= 73.160 deg. F
temperature 23	(72.470)	= 72.470 deg. F
temperature 24	(73.810)	= 73.810 deg. F
dewpoint 1	(48.850)	= 48.850 deg. F , 0.1705 psia
dewpoint 2	(49.540)	= 49.540 deg. F , 0.1749 psia
dewpoint 3	(49.200)	= 49.200 deg. F , 0.1727 psia
dewpoint 4	(50.360)	= 50.360 deg. F , 0.1804 psia
dewpoint 5	(50.020)	= 50.020 deg. F , 0.1781 psia
dewpoint 6	(49.730)	= 49.730 deg. F , 0.1762 psia
pressure 1	(14.3495)	= 14.3495 psia
pressure 2	(14.3493)	= 14.3493 psia

weighted averages, volume and air mass

temperature	=	73.75847 deg. F
pressure	=	14.34930 psia
vapor pressure	=	0.17538 psia
volume	=	2649000 cu. ft.
dry air mass	=	189987.0 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 8

time = 1300 date = 220

sensor	raw data	value
temperature 1 (73.770)	=	73.770 deg. F
temperature 2 (73.890)	=	73.890 deg. F
temperature 3 (73.960)	=	73.960 deg. F
temperature 4 (73.860)	=	73.860 deg. F
temperature 5 (73.750)	=	73.750 deg. F
temperature 6 (73.930)	=	73.930 deg. F
temperature 7 (73.640)	=	73.640 deg. F
temperature 8 (73.770)	=	73.770 deg. F
temperature 9 (73.940)	=	73.940 deg. F
temperature 10 (74.070)	=	74.070 deg. F
temperature 11 (73.940)	=	73.940 deg. F
temperature 12 (73.980)	=	73.980 deg. F
temperature 13 (73.930)	=	73.930 deg. F
temperature 14 (73.750)	=	73.750 deg. F
temperature 15 (74.010)	=	74.010 deg. F
temperature 16 (73.410)	=	73.410 deg. F
temperature 17 (73.710)	=	73.710 deg. F
temperature 18 (73.580)	=	73.580 deg. F
temperature 19 (74.120)	=	74.120 deg. F
temperature 20 (73.590)	=	73.590 deg. F
temperature 21 (73.180)	=	73.180 deg. F
temperature 22 (73.150)	=	73.150 deg. F
temperature 23 (72.450)	=	72.450 deg. F
temperature 24 (73.780)	=	73.780 deg. F
dewpoint 1 (48.880)	=	48.880 deg. F , 0.1707 psia
dewpoint 2 (49.550)	=	49.550 deg. F , 0.1750 psia
dewpoint 3 (49.220)	=	49.220 deg. F , 0.1729 psia
dewpoint 4 (50.360)	=	50.360 deg. F , 0.1804 psia
dewpoint 5 (50.040)	=	50.040 deg. F , 0.1782 psia
dewpoint 6 (49.900)	=	49.900 deg. F , 0.1773 psia
pressure 1 (14.3491)	=	14.3491 psia
pressure 2 (14.3485)	=	14.3485 psia

weighted averages, volume and air mass

temperature	=	73.73792 deg. F
pressure	=	14.34850 psia
vapor pressure	=	0.17560 psia
volume	=	2649000 cu. ft.
dry air mass	=	189980.6 lbm



FVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 9

time = 1315 date = 220

sensor	raw data	value
temperature 1	(73.740) =	73.740 deg. F
temperature 2	(73.870) =	73.870 deg. F
temperature 3	(73.920) =	73.920 deg. F
temperature 4	(73.840) =	73.840 deg. F
temperature 5	(73.740) =	73.740 deg. F
temperature 6	(73.880) =	73.880 deg. F
temperature 7	(73.630) =	73.630 deg. F
temperature 8	(73.750) =	73.750 deg. F
temperature 9	(73.920) =	73.920 deg. F
temperature 10	(74.010) =	74.010 deg. F
temperature 11	(73.940) =	73.940 deg. F
temperature 12	(73.940) =	73.940 deg. F
temperature 13	(73.920) =	73.920 deg. F
temperature 14	(73.730) =	73.730 deg. F
temperature 15	(74.010) =	74.010 deg. F
temperature 16	(73.400) =	73.400 deg. F
temperature 17	(73.700) =	73.700 deg. F
temperature 18	(73.540) =	73.540 deg. F
temperature 19	(74.110) =	74.110 deg. F
temperature 20	(73.560) =	73.560 deg. F
temperature 21	(73.170) =	73.170 deg. F
temperature 22	(73.130) =	73.130 deg. F
temperature 23	(72.440) =	72.440 deg. F
temperature 24	(73.750) =	73.750 deg. F
dewpoint 1	(48.980) =	48.980 deg. F , 0.1713 psia
dewpoint 2	(49.540) =	49.540 deg. F , 0.1749 psia
dewpoint 3	(49.230) =	49.230 deg. F , 0.1729 psia
dewpoint 4	(50.380) =	50.380 deg. F , 0.1805 psia
dewpoint 5	(50.050) =	50.050 deg. F , 0.1783 psia
dewpoint 6	(49.880) =	49.880 deg. F , 0.1772 psia
pressure 1	(14.3489) =	14.3489 psia
pressure 2	(14.3479) =	14.3479 psia

weighted averages, volume and air mass

temperature	=	73.71622 deg. F
pressure	=	14.34790 psia
vapor pressure	=	0.17572 psia
volume	=	2649000 cu. ft.
dry air mass	=	189978.7 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 10

time = 1330 date = 220

sensor	raw data	value
temperature 1	(73.680)	= 73.680 deg. F
temperature 2	(73.860)	= 73.860 deg. F
temperature 3	(73.920)	= 73.920 deg. F
temperature 4	(73.800)	= 73.800 deg. F
temperature 5	(73.730)	= 73.730 deg. F
temperature 6	(73.890)	= 73.890 deg. F
temperature 7	(73.590)	= 73.590 deg. F
temperature 8	(73.770)	= 73.770 deg. F
temperature 9	(73.900)	= 73.900 deg. F
temperature 10	(73.990)	= 73.990 deg. F
temperature 11	(73.900)	= 73.900 deg. F
temperature 12	(73.930)	= 73.930 deg. F
temperature 13	(73.930)	= 73.930 deg. F
temperature 14	(73.710)	= 73.710 deg. F
temperature 15	(74.010)	= 74.010 deg. F
temperature 16	(73.360)	= 73.360 deg. F
temperature 17	(73.690)	= 73.690 deg. F
temperature 18	(73.530)	= 73.530 deg. F
temperature 19	(74.090)	= 74.090 deg. F
temperature 20	(73.550)	= 73.550 deg. F
temperature 21	(73.150)	= 73.150 deg. F
temperature 22	(73.100)	= 73.100 deg. F
temperature 23	(72.430)	= 72.430 deg. F
temperature 24	(73.750)	= 73.750 deg. F
dewpoint 1	(48.890)	= 48.890 deg. F , 0.1707 psia
dewpoint 2	(49.560)	= 49.560 deg. F , 0.1751 psia
dewpoint 3	(49.210)	= 49.210 deg. F , 0.1728 psia
dewpoint 4	(50.380)	= 50.380 deg. F , 0.1805 psia
dewpoint 5	(50.060)	= 50.060 deg. F , 0.1784 psia
dewpoint 6	(49.950)	= 49.950 deg. F , 0.1776 psia
pressure 1	(14.3484)	= 14.3484 psia
pressure 2	(14.3470)	= 14.3470 psia

weighted averages, volume and air mass

temperature	=	73.70077 deg. F
pressure	=	14.34700 psia
vapor pressure	=	0.17569 psia
volume	=	2649000 cu. ft.
dry air mass	=	189972.5 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 11

time = 1345 date = 220

sensor		raw data		value	
temperature	1	(75.580)	=	75.580	deg. F
temperature	2	(75.520)	=	75.520	deg. F
temperature	3	(75.660)	=	75.660	deg. F
temperature	4	(75.510)	=	75.510	deg. F
temperature	5	(75.610)	=	75.610	deg. F
temperature	6	(75.530)	=	75.530	deg. F
temperature	7	(75.410)	=	75.410	deg. F
temperature	8	(75.430)	=	75.430	deg. F
temperature	9	(75.620)	=	75.620	deg. F
temperature	10	(75.490)	=	75.490	deg. F
temperature	11	(75.530)	=	75.530	deg. F
temperature	12	(75.620)	=	75.620	deg. F
temperature	13	(74.870)	=	74.870	deg. F
temperature	14	(74.780)	=	74.780	deg. F
temperature	15	(75.280)	=	75.280	deg. F
temperature	16	(74.660)	=	74.660	deg. F
temperature	17	(74.480)	=	74.480	deg. F
temperature	18	(74.030)	=	74.030	deg. F
temperature	19	(74.450)	=	74.450	deg. F
temperature	20	(73.650)	=	73.650	deg. F
temperature	21	(72.750)	=	72.750	deg. F
temperature	22	(73.560)	=	73.560	deg. F
temperature	23	(72.920)	=	72.920	deg. F
temperature	24	(75.160)	=	75.160	deg. F
dewpoint	1	(49.290)	=	49.290	deg. F , 0.1733 psia
dewpoint	2	(50.000)	=	50.000	deg. F , 0.1780 psia
dewpoint	3	(49.810)	=	49.810	deg. F , 0.1767 psia
dewpoint	4	(50.850)	=	50.850	deg. F , 0.1837 psia
dewpoint	5	(49.360)	=	49.360	deg. F , 0.1738 psia
dewpoint	6	(48.120)	=	48.120	deg. F , 0.1659 psia
pressure	1	(14.6938)	=	14.6938	psia
pressure	2	(14.6919)	=	14.6919	psia

weighted averages, volume and air mass

temperature	=	74.96626	deg. F
pressure	=	14.69190	psia
vapor pressure	=	0.17594	psia
volume	=	2649000	cu. ft.
dry air mass	=	194132.1	lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 12

time = 1400 date = 220

sensor	raw data	value
temperature 1	(77.540)	= 77.540 deg. F
temperature 2	(77.580)	= 77.580 deg. F
temperature 3	(77.390)	= 77.390 deg. F
temperature 4	(77.270)	= 77.270 deg. F
temperature 5	(77.200)	= 77.200 deg. F
temperature 6	(77.040)	= 77.040 deg. F
temperature 7	(77.020)	= 77.020 deg. F
temperature 8	(77.110)	= 77.110 deg. F
temperature 9	(77.010)	= 77.010 deg. F
temperature 10	(76.820)	= 76.820 deg. F
temperature 11	(76.770)	= 76.770 deg. F
temperature 12	(76.680)	= 76.680 deg. F
temperature 13	(76.280)	= 76.280 deg. F
temperature 14	(75.550)	= 75.550 deg. F
temperature 15	(76.000)	= 76.000 deg. F
temperature 16	(75.510)	= 75.510 deg. F
temperature 17	(74.890)	= 74.890 deg. F
temperature 18	(74.720)	= 74.720 deg. F
temperature 19	(74.640)	= 74.640 deg. F
temperature 20	(73.680)	= 73.680 deg. F
temperature 21	(72.720)	= 72.720 deg. F
temperature 22	(73.490)	= 73.490 deg. F
temperature 23	(72.940)	= 72.940 deg. F
temperature 24	(75.900)	= 75.900 deg. F
dewpoint 1	(50.190)	= 50.190 deg. F , 0.1792 psia
dewpoint 2	(50.270)	= 50.270 deg. F , 0.1798 psia
dewpoint 3	(50.380)	= 50.380 deg. F , 0.1805 psia
dewpoint 4	(51.400)	= 51.400 deg. F , 0.1874 psia
dewpoint 5	(48.810)	= 48.810 deg. F , 0.1702 psia
dewpoint 6	(47.420)	= 47.420 deg. F , 0.1616 psia
pressure 1	(15.1412)	= 15.1412 psia
pressure 2	(15.1395)	= 15.1395 psia

weighted averages, volume and air mass

temperature	=	76.05808 deg. F
pressure	=	15.13950 psia
vapor pressure	=	0.17764 psia
volume	=	2649000 cu. ft.
dry air mass	=	199687.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 13

time = 1415 date = 220

sensor	raw data	value
temperature 1	(78.300)	= 78.300 deg. F
temperature 2	(78.530)	= 78.530 deg. F
temperature 3	(78.310)	= 78.310 deg. F
temperature 4	(78.080)	= 78.080 deg. F
temperature 5	(78.010)	= 78.010 deg. F
temperature 6	(77.970)	= 77.970 deg. F
temperature 7	(77.530)	= 77.530 deg. F
temperature 8	(77.600)	= 77.600 deg. F
temperature 9	(77.540)	= 77.540 deg. F
temperature 10	(77.420)	= 77.420 deg. F
temperature 11	(77.160)	= 77.160 deg. F
temperature 12	(77.110)	= 77.110 deg. F
temperature 13	(76.820)	= 76.820 deg. F
temperature 14	(75.930)	= 75.930 deg. F
temperature 15	(76.250)	= 76.250 deg. F
temperature 16	(75.570)	= 75.570 deg. F
temperature 17	(74.990)	= 74.990 deg. F
temperature 18	(74.930)	= 74.930 deg. F
temperature 19	(74.730)	= 74.730 deg. F
temperature 20	(73.730)	= 73.730 deg. F
temperature 21	(72.700)	= 72.700 deg. F
temperature 22	(73.460)	= 73.460 deg. F
temperature 23	(72.920)	= 72.920 deg. F
temperature 24	(76.220)	= 76.220 deg. F
dewpoint 1	(50.800)	= 50.800 deg. F , 0.1833 psia
dewpoint 2	(51.110)	= 51.110 deg. F , 0.1854 psia
dewpoint 3	(50.630)	= 50.630 deg. F , 0.1822 psia
dewpoint 4	(51.780)	= 51.780 deg. F , 0.1901 psia
dewpoint 5	(48.580)	= 48.580 deg. F , 0.1688 psia
dewpoint 6	(47.250)	= 47.250 deg. F , 0.1605 psia
pressure 1	(15.5739)	= 15.5739 psia
pressure 2	(15.5728)	= 15.5728 psia

weighted averages, volume and air mass

temperature	=	76.50316 deg. F
pressure	=	15.57280 psia
vapor pressure	=	0.17987 psia
volume	=	2649000 cu. ft.
dry air mass	=	205270.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 14

time = 1430 date = 220

sensor	raw data	value
temperature 1	(78.920)	= 78.920 deg. F
temperature 2	(78.860)	= 78.860 deg. F
temperature 3	(78.830)	= 78.830 deg. F
temperature 4	(78.650)	= 78.650 deg. F
temperature 5	(78.390)	= 78.390 deg. F
temperature 6	(78.370)	= 78.370 deg. F
temperature 7	(77.790)	= 77.790 deg. F
temperature 8	(77.790)	= 77.790 deg. F
temperature 9	(77.820)	= 77.820 deg. F
temperature 10	(77.680)	= 77.680 deg. F
temperature 11	(77.570)	= 77.570 deg. F
temperature 12	(77.420)	= 77.420 deg. F
temperature 13	(77.090)	= 77.090 deg. F
temperature 14	(76.160)	= 76.160 deg. F
temperature 15	(76.460)	= 76.460 deg. F
temperature 16	(75.740)	= 75.740 deg. F
temperature 17	(75.030)	= 75.030 deg. F
temperature 18	(75.090)	= 75.090 deg. F
temperature 19	(74.820)	= 74.820 deg. F
temperature 20	(73.780)	= 73.780 deg. F
temperature 21	(72.680)	= 72.680 deg. F
temperature 22	(73.430)	= 73.430 deg. F
temperature 23	(72.920)	= 72.920 deg. F
temperature 24	(76.340)	= 76.340 deg. F
dewpoint 1	(51.260)	= 51.260 deg. F , 0.1865 psia
dewpoint 2	(51.360)	= 51.360 deg. F , 0.1872 psia
dewpoint 3	(50.860)	= 50.860 deg. F , 0.1837 psia
dewpoint 4	(51.940)	= 51.940 deg. F , 0.1912 psia
dewpoint 5	(48.530)	= 48.530 deg. F , 0.1685 psia
dewpoint 6	(47.150)	= 47.150 deg. F , 0.1599 psia
pressure 1	(16.0063)	= 16.0063 psia
pressure 2	(16.0031)	= 16.0031 psia

weighted averages, volume and air mass

temperature	=	76.75924 deg. F
pressure	=	16.00310 psia
vapor pressure	=	0.18110 psia
volume	=	2649000 cu. ft.
dry air mass	=	210891.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 15

time = 1445 date = 220

sensor	raw data	value
temperature 1 (79.180)	=	79.180 deg. F
temperature 2 (79.160)	=	79.160 deg. F
temperature 3 (78.970)	=	78.970 deg. F
temperature 4 (78.830)	=	78.830 deg. F
temperature 5 (78.700)	=	78.700 deg. F
temperature 6 (78.590)	=	78.590 deg. F
temperature 7 (77.910)	=	77.910 deg. F
temperature 8 (77.960)	=	77.960 deg. F
temperature 9 (77.970)	=	77.970 deg. F
temperature 10 (77.790)	=	77.790 deg. F
temperature 11 (77.630)	=	77.630 deg. F
temperature 12 (77.640)	=	77.640 deg. F
temperature 13 (77.260)	=	77.260 deg. F
temperature 14 (76.350)	=	76.350 deg. F
temperature 15 (76.620)	=	76.620 deg. F
temperature 16 (75.820)	=	75.820 deg. F
temperature 17 (75.130)	=	75.130 deg. F
temperature 18 (75.200)	=	75.200 deg. F
temperature 19 (74.900)	=	74.900 deg. F
temperature 20 (73.830)	=	73.830 deg. F
temperature 21 (72.680)	=	72.680 deg. F
temperature 22 (73.430)	=	73.430 deg. F
temperature 23 (72.910)	=	72.910 deg. F
temperature 24 (76.370)	=	76.370 deg. F
dewpoint 1 (51.440)	=	51.440 deg. F , 0.1877 psia
dewpoint 2 (51.480)	=	51.480 deg. F , 0.1880 psia
dewpoint 3 (51.190)	=	51.190 deg. F , 0.1860 psia
dewpoint 4 (52.050)	=	52.050 deg. F , 0.1920 psia
dewpoint 5 (48.680)	=	48.680 deg. F , 0.1694 psia
dewpoint 6 (47.200)	=	47.200 deg. F , 0.1602 psia
pressure 1 (16.4350)	=	16.4350 psia
pressure 2 (16.4328)	=	16.4328 psia

weighted averages, volume and air mass

temperature	=	76.89903 deg. F
pressure	=	16.43280 psia
vapor pressure	=	0.18223 psia
volume	=	2649000 cu. ft.
dry air mass	=	216547.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 16

time = 1500 date = 220

sensor		raw data		value	
temperature	1 (	79.380)	=	79.380 deg. F	
temperature	2 (	79.310)	=	79.310 deg. F	
temperature	3 (	79.100)	=	79.100 deg. F	
temperature	4 (	79.130)	=	79.130 deg. F	
temperature	5 (	78.870)	=	78.870 deg. F	
temperature	6 (	78.640)	=	78.640 deg. F	
temperature	7 (	78.080)	=	78.080 deg. F	
temperature	8 (	78.170)	=	78.170 deg. F	
temperature	9 (	78.180)	=	78.180 deg. F	
temperature	10 (	77.960)	=	77.960 deg. F	
temperature	11 (	77.850)	=	77.850 deg. F	
temperature	12 (	77.780)	=	77.780 deg. F	
temperature	13 (	77.370)	=	77.370 deg. F	
temperature	14 (	76.470)	=	76.470 deg. F	
temperature	15 (	76.770)	=	76.770 deg. F	
temperature	16 (	75.900)	=	75.900 deg. F	
temperature	17 (	75.280)	=	75.280 deg. F	
temperature	18 (	75.280)	=	75.280 deg. F	
temperature	19 (	74.950)	=	74.950 deg. F	
temperature	20 (	73.880)	=	73.880 deg. F	
temperature	21 (	72.750)	=	72.750 deg. F	
temperature	22 (	73.430)	=	73.430 deg. F	
temperature	23 (	72.910)	=	72.910 deg. F	
temperature	24 (	76.490)	=	76.490 deg. F	
dewpoint	1 (	51.590)	=	51.590 deg. F , 0.1888 psia	
dewpoint	2 (	51.560)	=	51.560 deg. F , 0.1886 psia	
dewpoint	3 (	51.230)	=	51.230 deg. F , 0.1863 psia	
dewpoint	4 (	52.150)	=	52.150 deg. F , 0.1927 psia	
dewpoint	5 (	48.710)	=	48.710 deg. F , 0.1696 psia	
dewpoint	6 (	47.280)	=	47.280 deg. F , 0.1607 psia	
pressure	1 (	16.8699)	=	16.8699 psia	
pressure	2 (	16.8678)	=	16.8678 psia	

weighted averages, volume and air mass

temperature	=	77.03392 deg. F
pressure	=	16.86780 psia
vapor pressure	=	0.18277 psia
volume	=	2649000 cu. ft.
dry air mass	=	222281.0 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 17

time = 1515 date = 220

sensor	raw data	value
temperature 1 (	79.580)	= 79.580 deg. F
temperature 2 (	79.510)	= 79.510 deg. F
temperature 3 (	79.370)	= 79.370 deg. F
temperature 4 (	79.280)	= 79.280 deg. F
temperature 5 (	79.110)	= 79.110 deg. F
temperature 6 (	78.910)	= 78.910 deg. F
temperature 7 (	78.260)	= 78.260 deg. F
temperature 8 (	78.260)	= 78.260 deg. F
temperature 9 (	78.360)	= 78.360 deg. F
temperature 10 (	78.130)	= 78.130 deg. F
temperature 11 (	77.900)	= 77.900 deg. F
temperature 12 (	77.980)	= 77.980 deg. F
temperature 13 (	77.560)	= 77.560 deg. F
temperature 14 (	76.600)	= 76.600 deg. F
temperature 15 (	76.920)	= 76.920 deg. F
temperature 16 (	75.990)	= 75.990 deg. F
temperature 17 (	75.350)	= 75.350 deg. F
temperature 18 (	75.360)	= 75.360 deg. F
temperature 19 (	75.000)	= 75.000 deg. F
temperature 20 (	73.890)	= 73.890 deg. F
temperature 21 (	72.790)	= 72.790 deg. F
temperature 22 (	73.470)	= 73.470 deg. F
temperature 23 (	72.930)	= 72.930 deg. F
temperature 24 (	76.550)	= 76.550 deg. F
dewpoint 1 (	51.900)	= 51.900 deg. F , 0.1909 psia
dewpoint 2 (	51.760)	= 51.760 deg. F , 0.1900 psia
dewpoint 3 (	51.300)	= 51.300 deg. F , 0.1868 psia
dewpoint 4 (	52.340)	= 52.340 deg. F , 0.1941 psia
dewpoint 5 (	48.700)	= 48.700 deg. F , 0.1695 psia
dewpoint 6 (	46.960)	= 46.960 deg. F , 0.1588 psia
pressure 1 (	17.3090)	= 17.3090 psia
pressure 2 (	17.3073)	= 17.3073 psia

weighted averages, volume and air mass

temperature	=	77.17181 deg. F
pressure	=	17.30730 psia
vapor pressure	=	0.18349 psia
volume	=	2649000 cu. ft.
dry air mass	=	228067.9 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 18

time = 1530 date = 220

sensor	raw data	value
temperature 1	(79.690)	= 79.690 deg. F
temperature 2	(79.630)	= 79.630 deg. F
temperature 3	(79.470)	= 79.470 deg. F
temperature 4	(79.350)	= 79.350 deg. F
temperature 5	(79.150)	= 79.150 deg. F
temperature 6	(78.990)	= 78.990 deg. F
temperature 7	(78.380)	= 78.380 deg. F
temperature 8	(78.450)	= 78.450 deg. F
temperature 9	(78.310)	= 78.310 deg. F
temperature 10	(78.290)	= 78.290 deg. F
temperature 11	(78.020)	= 78.020 deg. F
temperature 12	(78.080)	= 78.080 deg. F
temperature 13	(77.620)	= 77.620 deg. F
temperature 14	(76.700)	= 76.700 deg. F
temperature 15	(77.020)	= 77.020 deg. F
temperature 16	(76.050)	= 76.050 deg. F
temperature 17	(75.450)	= 75.450 deg. F
temperature 18	(75.440)	= 75.440 deg. F
temperature 19	(75.050)	= 75.050 deg. F
temperature 20	(73.900)	= 73.900 deg. F
temperature 21	(72.790)	= 72.790 deg. F
temperature 22	(73.430)	= 73.430 deg. F
temperature 23	(72.940)	= 72.940 deg. F
temperature 24	(76.590)	= 76.590 deg. F
dewpoint 1	(51.940)	= 51.940 deg. F , 0.1912 psia
dewpoint 2	(51.850)	= 51.850 deg. F , 0.1906 psia
dewpoint 3	(51.190)	= 51.190 deg. F , 0.1860 psia
dewpoint 4	(52.400)	= 52.400 deg. F , 0.1945 psia
dewpoint 5	(48.650)	= 48.650 deg. F , 0.1692 psia
dewpoint 6	(47.230)	= 47.230 deg. F , 0.1604 psia
pressure 1	(17.7453)	= 17.7453 psia
pressure 2	(17.7443)	= 17.7443 psia

weighted averages, volume and air mass

temperature	=	77.24795 deg. F
pressure	=	17.74430 psia
vapor pressure	=	0.18373 psia
volume	=	2649000 cu. ft.
dry air mass	=	233851.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 19

time = 1545 date = 220

sensor		raw data		value	
temperature	1 (	79.770	) =	79.770 deg. F	
temperature	2 (	79.640	) =	79.640 deg. F	
temperature	3 (	79.560	) =	79.560 deg. F	
temperature	4 (	79.400	) =	79.400 deg. F	
temperature	5 (	79.190	) =	79.190 deg. F	
temperature	6 (	79.100	) =	79.100 deg. F	
temperature	7 (	78.470	) =	78.470 deg. F	
temperature	8 (	78.510	) =	78.510 deg. F	
temperature	9 (	78.480	) =	78.480 deg. F	
temperature	10 (	78.470	) =	78.470 deg. F	
temperature	11 (	78.090	) =	78.090 deg. F	
temperature	12 (	78.160	) =	78.160 deg. F	
temperature	13 (	77.690	) =	77.690 deg. F	
temperature	14 (	76.780	) =	76.780 deg. F	
temperature	15 (	77.100	) =	77.100 deg. F	
temperature	16 (	76.100	) =	76.100 deg. F	
temperature	17 (	75.550	) =	75.550 deg. F	
temperature	18 (	75.480	) =	75.480 deg. F	
temperature	19 (	75.070	) =	75.070 deg. F	
temperature	20 (	73.980	) =	73.980 deg. F	
temperature	21 (	72.790	) =	72.790 deg. F	
temperature	22 (	73.430	) =	73.430 deg. F	
temperature	23 (	72.910	) =	72.910 deg. F	
temperature	24 (	76.590	) =	76.590 deg. F	
dewpoint	1 (	52.020	) =	52.020 deg. F	0.1918 psia
dewpoint	2 (	51.980	) =	51.980 deg. F	0.1915 psia
dewpoint	3 (	51.250	) =	51.250 deg. F	0.1864 psia
dewpoint	4 (	52.450	) =	52.450 deg. F	0.1949 psia
dewpoint	5 (	48.870	) =	48.870 deg. F	0.1706 psia
dewpoint	6 (	46.570	) =	46.570 deg. F	0.1565 psia
pressure	1 (	18.1850	) =	18.1850 psia	
pressure	2 (	18.1834	) =	18.1834 psia	

weighted averages, volume and air mass

temperature	=	77.31627 deg. F
pressure	=	18.18340 psia
vapor pressure	=	0.18388 psia
volume	=	2649000 cu. ft.
dry air mass	=	239666.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 20

time = 1600 date = 220

sensor	raw data	value
temperature 1	(79.680)	= 79.680 deg. F
temperature 2	(79.660)	= 79.660 deg. F
temperature 3	(79.550)	= 79.550 deg. F
temperature 4	(79.460)	= 79.460 deg. F
temperature 5	(79.270)	= 79.270 deg. F
temperature 6	(79.140)	= 79.140 deg. F
temperature 7	(78.510)	= 78.510 deg. F
temperature 8	(78.550)	= 78.550 deg. F
temperature 9	(78.590)	= 78.590 deg. F
temperature 10	(78.430)	= 78.430 deg. F
temperature 11	(78.190)	= 78.190 deg. F
temperature 12	(78.190)	= 78.190 deg. F
temperature 13	(77.730)	= 77.730 deg. F
temperature 14	(76.850)	= 76.850 deg. F
temperature 15	(77.170)	= 77.170 deg. F
temperature 16	(76.170)	= 76.170 deg. F
temperature 17	(75.640)	= 75.640 deg. F
temperature 18	(75.540)	= 75.540 deg. F
temperature 19	(75.100)	= 75.100 deg. F
temperature 20	(74.050)	= 74.050 deg. F
temperature 21	(72.790)	= 72.790 deg. F
temperature 22	(73.420)	= 73.420 deg. F
temperature 23	(72.910)	= 72.910 deg. F
temperature 24	(76.610)	= 76.610 deg. F
dewpoint 1	(52.000)	= 52.000 deg. F , 0.1916 psia
dewpoint 2	(52.060)	= 52.060 deg. F , 0.1921 psia
dewpoint 3	(51.550)	= 51.550 deg. F , 0.1885 psia
dewpoint 4	(52.590)	= 52.590 deg. F , 0.1959 psia
dewpoint 5	(49.080)	= 49.080 deg. F , 0.1720 psia
dewpoint 6	(47.390)	= 47.390 deg. F , 0.1614 psia
pressure 1	(18.6203)	= 18.6203 psia
pressure 2	(18.6206)	= 18.6206 psia

weighted averages, volume and air mass

temperature	=	77.35591 deg. F
pressure	=	18.62060 psia
vapor pressure	=	0.18535 psia
volume	=	2649000 cu. ft.
dry air mass	=	245450.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 21

time = 1615 date = 220

sensor	raw data	value
temperature 1 (79.760)	=	79.760 deg. F
temperature 2 (79.680)	=	79.680 deg. F
temperature 3 (79.580)	=	79.580 deg. F
temperature 4 (79.470)	=	79.470 deg. F
temperature 5 (79.350)	=	79.350 deg. F
temperature 6 (79.220)	=	79.220 deg. F
temperature 7 (78.580)	=	78.580 deg. F
temperature 8 (78.710)	=	78.710 deg. F
temperature 9 (78.590)	=	78.590 deg. F
temperature 10 (78.570)	=	78.570 deg. F
temperature 11 (78.200)	=	78.200 deg. F
temperature 12 (78.290)	=	78.290 deg. F
temperature 13 (77.800)	=	77.800 deg. F
temperature 14 (76.940)	=	76.940 deg. F
temperature 15 (77.250)	=	77.250 deg. F
temperature 16 (76.270)	=	76.270 deg. F
temperature 17 (75.710)	=	75.710 deg. F
temperature 18 (75.600)	=	75.600 deg. F
temperature 19 (75.120)	=	75.120 deg. F
temperature 20 (74.120)	=	74.120 deg. F
temperature 21 (72.830)	=	72.830 deg. F
temperature 22 (73.430)	=	73.430 deg. F
temperature 23 (72.910)	=	72.910 deg. F
temperature 24 (76.640)	=	76.640 deg. F
dewpoint 1 (52.130)	=	52.130 deg. F , 0.1926 psia
dewpoint 2 (52.170)	=	52.170 deg. F , 0.1929 psia
dewpoint 3 (51.550)	=	51.550 deg. F , 0.1885 psia
dewpoint 4 (52.750)	=	52.750 deg. F , 0.1970 psia
dewpoint 5 (49.240)	=	49.240 deg. F , 0.1730 psia
dewpoint 6 (47.500)	=	47.500 deg. F , 0.1621 psia
pressure 1 (19.0575)	=	19.0575 psia
pressure 2 (19.0549)	=	19.0549 psia

weighted averages, volume and air mass

temperature	=	77.41766 deg. F
pressure	=	19.05490 psia
vapor pressure	=	0.18609 psia
volume	=	2649000 cu. ft.
dry air mass	=	251194.1 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 22

time = 1630 date = 220

sensor	raw data	value
temperature 1	(79.970)	= 79.970 deg. F
temperature 2	(79.880)	= 79.880 deg. F
temperature 3	(79.720)	= 79.720 deg. F
temperature 4	(79.680)	= 79.680 deg. F
temperature 5	(79.470)	= 79.470 deg. F
temperature 6	(79.360)	= 79.360 deg. F
temperature 7	(78.700)	= 78.700 deg. F
temperature 8	(78.880)	= 78.880 deg. F
temperature 9	(78.810)	= 78.810 deg. F
temperature 10	(78.740)	= 78.740 deg. F
temperature 11	(78.430)	= 78.430 deg. F
temperature 12	(78.450)	= 78.450 deg. F
temperature 13	(77.990)	= 77.990 deg. F
temperature 14	(77.140)	= 77.140 deg. F
temperature 15	(77.420)	= 77.420 deg. F
temperature 16	(76.530)	= 76.530 deg. F
temperature 17	(75.850)	= 75.850 deg. F
temperature 18	(75.600)	= 75.600 deg. F
temperature 19	(75.170)	= 75.170 deg. F
temperature 20	(74.020)	= 74.020 deg. F
temperature 21	(72.570)	= 72.570 deg. F
temperature 22	(73.430)	= 73.430 deg. F
temperature 23	(72.950)	= 72.950 deg. F
temperature 24	(76.760)	= 76.760 deg. F
dewpoint 1	(52.210)	= 52.210 deg. F , 0.1931 psia
dewpoint 2	(52.370)	= 52.370 deg. F , 0.1943 psia
dewpoint 3	(51.540)	= 51.540 deg. F , 0.1884 psia
dewpoint 4	(52.800)	= 52.800 deg. F , 0.1974 psia
dewpoint 5	(49.180)	= 49.180 deg. F , 0.1726 psia
dewpoint 6	(48.260)	= 48.260 deg. F , 0.1668 psia
pressure 1	(19.5501)	= 19.5501 psia
pressure 2	(19.5473)	= 19.5473 psia

weighted averages, volume and air mass

temperature	=	77.54988 deg. F
pressure	=	19.54730 psia
vapor pressure	=	0.18701 psia
volume	=	2649000 cu. ft.
dry air mass	=	257673.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 23

time = 1645 date = 220

sensor	raw data	value
temperature 1	(81.140) =	81.140 deg. F
temperature 2	(80.970) =	80.970 deg. F
temperature 3	(80.720) =	80.720 deg. F
temperature 4	(80.840) =	80.840 deg. F
temperature 5	(80.610) =	80.610 deg. F
temperature 6	(80.330) =	80.330 deg. F
temperature 7	(79.680) =	79.680 deg. F
temperature 8	(79.660) =	79.660 deg. F
temperature 9	(79.760) =	79.760 deg. F
temperature 10	(79.450) =	79.450 deg. F
temperature 11	(79.240) =	79.240 deg. F
temperature 12	(79.200) =	79.200 deg. F
temperature 13	(78.660) =	78.660 deg. F
temperature 14	(77.690) =	77.690 deg. F
temperature 15	(77.960) =	77.960 deg. F
temperature 16	(77.320) =	77.320 deg. F
temperature 17	(76.170) =	76.170 deg. F
temperature 18	(75.480) =	75.480 deg. F
temperature 19	(75.240) =	75.240 deg. F
temperature 20	(73.520) =	73.520 deg. F
temperature 21	(72.810) =	72.810 deg. F
temperature 22	(73.550) =	73.550 deg. F
temperature 23	(73.130) =	73.130 deg. F
temperature 24	(77.120) =	77.120 deg. F
dewpoint 1	(52.770) =	52.770 deg. F , 0.1972 psia
dewpoint 2	(52.800) =	52.800 deg. F , 0.1974 psia
dewpoint 3	(52.140) =	52.140 deg. F , 0.1926 psia
dewpoint 4	(53.160) =	53.160 deg. F , 0.2000 psia
dewpoint 5	(49.820) =	49.820 deg. F , 0.1768 psia
dewpoint 6	(48.250) =	48.250 deg. F , 0.1667 psia
pressure 1	(20.2162) =	20.2162 psia
pressure 2	(20.2137) =	20.2137 psia

weighted averages, volume and air mass

temperature	=	78.20975 deg. F
pressure	=	20.21370 psia
vapor pressure	=	0.19017 psia
volume	=	2649000 cu. ft.
dry air mass	=	266173.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 24

time = 1700 date = 220

sensor	raw data	value
temperature 1 (82.260)	=	82.260 deg. F
temperature 2 (82.010)	=	82.010 deg. F
temperature 3 (81.730)	=	81.730 deg. F
temperature 4 (81.650)	=	81.650 deg. F
temperature 5 (81.540)	=	81.540 deg. F
temperature 6 (80.740)	=	80.740 deg. F
temperature 7 (80.490)	=	80.490 deg. F
temperature 8 (80.540)	=	80.540 deg. F
temperature 9 (80.520)	=	80.520 deg. F
temperature 10 (80.110)	=	80.110 deg. F
temperature 11 (79.860)	=	79.860 deg. F
temperature 12 (79.800)	=	79.800 deg. F
temperature 13 (79.110)	=	79.110 deg. F
temperature 14 (78.000)	=	78.000 deg. F
temperature 15 (78.230)	=	78.230 deg. F
temperature 16 (77.650)	=	77.650 deg. F
temperature 17 (76.370)	=	76.370 deg. F
temperature 18 (75.640)	=	75.640 deg. F
temperature 19 (75.300)	=	75.300 deg. F
temperature 20 (73.380)	=	73.380 deg. F
temperature 21 (72.750)	=	72.750 deg. F
temperature 22 (73.550)	=	73.550 deg. F
temperature 23 (73.150)	=	73.150 deg. F
temperature 24 (77.310)	=	77.310 deg. F
dewpoint 1 (53.290)	=	53.290 deg. F , 0.2010 psia
dewpoint 2 (52.900)	=	52.900 deg. F , 0.1981 psia
dewpoint 3 (52.640)	=	52.640 deg. F , 0.1962 psia
dewpoint 4 (53.780)	=	53.780 deg. F , 0.2046 psia
dewpoint 5 (49.790)	=	49.790 deg. F , 0.1766 psia
dewpoint 6 (48.280)	=	48.280 deg. F , 0.1669 psia
pressure 1 (20.9297)	=	20.9297 psia
pressure 2 (20.9281)	=	20.9281 psia

weighted averages, volume and air mass

temperature	=	78.72070 deg. F
pressure	=	20.92810 psia
vapor pressure	=	0.19246 psia
volume	=	2649000 cu. ft.
dry air mass	=	275378.4 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 25

time = 1715 date = 220

sensor		raw data		value	
temperature	1	(82.740)	=	82.740 deg. F	
temperature	2	(82.510)	=	82.510 deg. F	
temperature	3	(82.320)	=	82.320 deg. F	
temperature	4	(81.890)	=	81.890 deg. F	
temperature	5	(81.710)	=	81.710 deg. F	
temperature	6	(81.210)	=	81.210 deg. F	
temperature	7	(80.800)	=	80.800 deg. F	
temperature	8	(80.920)	=	80.920 deg. F	
temperature	9	(80.840)	=	80.840 deg. F	
temperature	10	(80.330)	=	80.330 deg. F	
temperature	11	(80.160)	=	80.160 deg. F	
temperature	12	(80.090)	=	80.090 deg. F	
temperature	13	(79.350)	=	79.350 deg. F	
temperature	14	(78.170)	=	78.170 deg. F	
temperature	15	(78.320)	=	78.320 deg. F	
temperature	16	(77.750)	=	77.750 deg. F	
temperature	17	(76.480)	=	76.480 deg. F	
temperature	18	(75.840)	=	75.840 deg. F	
temperature	19	(75.350)	=	75.350 deg. F	
temperature	20	(73.380)	=	73.380 deg. F	
temperature	21	(72.850)	=	72.850 deg. F	
temperature	22	(73.540)	=	73.540 deg. F	
temperature	23	(73.130)	=	73.130 deg. F	
temperature	24	(77.310)	=	77.310 deg. F	
dewpoint	1	(53.740)	=	53.740 deg. F	, 0.2043 psia
dewpoint	2	(53.300)	=	53.300 deg. F	, 0.2010 psia
dewpoint	3	(53.200)	=	53.200 deg. F	, 0.2003 psia
dewpoint	4	(54.240)	=	54.240 deg. F	, 0.2081 psia
dewpoint	5	(49.880)	=	49.880 deg. F	, 0.1772 psia
dewpoint	6	(48.370)	=	48.370 deg. F	, 0.1674 psia
pressure	1	(21.6251)	=	21.6251 psia	
pressure	2	(21.6236)	=	21.6236 psia	

weighted averages, volume and air mass

temperature	=	78.95563 deg. F
pressure	=	21.62360 psia
vapor pressure	=	0.19516 psia
volume	=	2649000 cu. ft.
dry air mass	=	284455.0 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 26

time = 1730 date = 220

sensor	raw data	value
temperature 1	(82.610) =	82.610 deg. F
temperature 2	(82.680) =	82.680 deg. F
temperature 3	(82.360) =	82.360 deg. F
temperature 4	(81.890) =	81.890 deg. F
temperature 5	(81.870) =	81.870 deg. F
temperature 6	(81.310) =	81.310 deg. F
temperature 7	(80.780) =	80.780 deg. F
temperature 8	(80.830) =	80.830 deg. F
temperature 9	(80.770) =	80.770 deg. F
temperature 10	(80.350) =	80.350 deg. F
temperature 11	(80.190) =	80.190 deg. F
temperature 12	(80.000) =	80.000 deg. F
temperature 13	(79.340) =	79.340 deg. F
temperature 14	(78.160) =	78.160 deg. F
temperature 15	(78.300) =	78.300 deg. F
temperature 16	(77.610) =	77.610 deg. F
temperature 17	(76.560) =	76.560 deg. F
temperature 18	(75.970) =	75.970 deg. F
temperature 19	(75.380) =	75.380 deg. F
temperature 20	(73.700) =	73.700 deg. F
temperature 21	(72.810) =	72.810 deg. F
temperature 22	(73.500) =	73.500 deg. F
temperature 23	(73.080) =	73.080 deg. F
temperature 24	(77.190) =	77.190 deg. F
dewpoint 1	(54.000) =	54.000 deg. F , 0.2063 psia
dewpoint 2	(53.520) =	53.520 deg. F , 0.2027 psia
dewpoint 3	(53.510) =	53.510 deg. F , 0.2026 psia
dewpoint 4	(54.620) =	54.620 deg. F , 0.2110 psia
dewpoint 5	(50.630) =	50.630 deg. F , 0.1822 psia
dewpoint 6	(48.350) =	48.350 deg. F , 0.1673 psia
pressure 1	(22.2440) =	22.2440 psia
pressure 2	(22.2449) =	22.2449 psia

weighted averages, volume and air mass

temperature	=	78.96469 deg. F
pressure	=	22.24490 psia
vapor pressure	=	0.19749 psia
volume	=	2649000 cu. ft.
dry air mass	=	292666.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 27

time = 1745 date = 220

sensor	raw data	value
temperature 1	(82.460) =	82.460 deg. F
temperature 2	(82.440) =	82.440 deg. F
temperature 3	(82.190) =	82.190 deg. F
temperature 4	(81.830) =	81.830 deg. F
temperature 5	(81.690) =	81.690 deg. F
temperature 6	(81.180) =	81.180 deg. F
temperature 7	(80.690) =	80.690 deg. F
temperature 8	(80.760) =	80.760 deg. F
temperature 9	(80.800) =	80.800 deg. F
temperature 10	(80.290) =	80.290 deg. F
temperature 11	(80.140) =	80.140 deg. F
temperature 12	(79.990) =	79.990 deg. F
temperature 13	(79.350) =	79.350 deg. F
temperature 14	(78.230) =	78.230 deg. F
temperature 15	(78.330) =	78.330 deg. F
temperature 16	(77.710) =	77.710 deg. F
temperature 17	(76.610) =	76.610 deg. F
temperature 18	(76.040) =	76.040 deg. F
temperature 19	(75.410) =	75.410 deg. F
temperature 20	(73.800) =	73.800 deg. F
temperature 21	(72.920) =	72.920 deg. F
temperature 22	(73.500) =	73.500 deg. F
temperature 23	(73.120) =	73.120 deg. F
temperature 24	(77.220) =	77.220 deg. F
dewpoint 1	(54.190) =	54.190 deg. F , 0.2077 psia
dewpoint 2	(53.660) =	53.660 deg. F , 0.2037 psia
dewpoint 3	(53.670) =	53.670 deg. F , 0.2038 psia
dewpoint 4	(54.820) =	54.820 deg. F , 0.2125 psia
dewpoint 5	(50.960) =	50.960 deg. F , 0.1844 psia
dewpoint 6	(48.900) =	48.900 deg. F , 0.1708 psia
pressure 1	(22.8564) =	22.8564 psia
pressure 2	(22.8561) =	22.8561 psia

weighted averages, volume and air mass

temperature	=	78.93700 deg. F
pressure	=	22.85610 psia
vapor pressure	=	0.19919 psia
volume	=	2649000 cu. ft.
dry air mass	=	300773.0 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 28

time = 1800 date = 220

sensor	raw data	value
temperature 1	(82.460)	= 82.460 deg. F
temperature 2	(82.350)	= 82.350 deg. F
temperature 3	(82.210)	= 82.210 deg. F
temperature 4	(81.980)	= 81.980 deg. F
temperature 5	(81.750)	= 81.750 deg. F
temperature 6	(81.280)	= 81.280 deg. F
temperature 7	(80.840)	= 80.840 deg. F
temperature 8	(80.880)	= 80.880 deg. F
temperature 9	(80.770)	= 80.770 deg. F
temperature 10	(80.380)	= 80.380 deg. F
temperature 11	(80.210)	= 80.210 deg. F
temperature 12	(80.060)	= 80.060 deg. F
temperature 13	(79.400)	= 79.400 deg. F
temperature 14	(78.330)	= 78.330 deg. F
temperature 15	(78.430)	= 78.430 deg. F
temperature 16	(77.800)	= 77.800 deg. F
temperature 17	(76.700)	= 76.700 deg. F
temperature 18	(76.090)	= 76.090 deg. F
temperature 19	(75.450)	= 75.450 deg. F
temperature 20	(73.880)	= 73.880 deg. F
temperature 21	(72.880)	= 72.880 deg. F
temperature 22	(73.490)	= 73.490 deg. F
temperature 23	(73.100)	= 73.100 deg. F
temperature 24	(77.230)	= 77.230 deg. F
dewpoint 1	(54.350)	= 54.350 deg. F , 0.2089 psia
dewpoint 2	(53.860)	= 53.860 deg. F , 0.2052 psia
dewpoint 3	(53.930)	= 53.930 deg. F , 0.2057 psia
dewpoint 4	(55.060)	= 55.060 deg. F , 0.2144 psia
dewpoint 5	(51.420)	= 51.420 deg. F , 0.1876 psia
dewpoint 6	(49.310)	= 49.310 deg. F , 0.1734 psia
pressure 1	(23.4783)	= 23.4783 psia
pressure 2	(23.4786)	= 23.4786 psia

weighted averages, volume and air mass

temperature	=	78.99386 deg. F
pressure	=	23.47860 psia
vapor pressure	=	0.20118 psia
volume	=	2649000 cu. ft.
dry air mass	=	308977.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 29

time = 1815 date = 220

sensor	raw data	value
temperature 1	(82.570)	= 82.570 deg. F
temperature 2	(82.420)	= 82.420 deg. F
temperature 3	(82.160)	= 82.160 deg. F
temperature 4	(81.930)	= 81.930 deg. F
temperature 5	(81.760)	= 81.760 deg. F
temperature 6	(81.350)	= 81.350 deg. F
temperature 7	(80.800)	= 80.800 deg. F
temperature 8	(80.920)	= 80.920 deg. F
temperature 9	(80.930)	= 80.930 deg. F
temperature 10	(80.490)	= 80.490 deg. F
temperature 11	(80.300)	= 80.300 deg. F
temperature 12	(80.150)	= 80.150 deg. F
temperature 13	(79.530)	= 79.530 deg. F
temperature 14	(78.450)	= 78.450 deg. F
temperature 15	(78.540)	= 78.540 deg. F
temperature 16	(77.870)	= 77.870 deg. F
temperature 17	(76.810)	= 76.810 deg. F
temperature 18	(76.150)	= 76.150 deg. F
temperature 19	(75.470)	= 75.470 deg. F
temperature 20	(73.830)	= 73.830 deg. F
temperature 21	(73.000)	= 73.000 deg. F
temperature 22	(73.520)	= 73.520 deg. F
temperature 23	(73.120)	= 73.120 deg. F
temperature 24	(77.270)	= 77.270 deg. F
dewpoint 1	(54.330)	= 54.330 deg. F , 0.2088 psia
dewpoint 2	(54.290)	= 54.290 deg. F , 0.2084 psia
dewpoint 3	(54.020)	= 54.020 deg. F , 0.2064 psia
dewpoint 4	(55.300)	= 55.300 deg. F , 0.2163 psia
dewpoint 5	(51.690)	= 51.690 deg. F , 0.1895 psia
dewpoint 6	(49.720)	= 49.720 deg. F , 0.1761 psia
pressure 1	(24.1110)	= 24.1110 psia
pressure 2	(24.1118)	= 24.1118 psia

weighted averages, volume and air mass

temperature	=	79.05327 deg. F
pressure	=	24.11180 psia
vapor pressure	=	0.20285 psia
volume	=	2649000 cu. ft.
dry air mass	=	317325.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 30

time = 1830 date = 220

sensor	raw data	value
temperature 1	(82.380)	= 82.380 deg. F
temperature 2	(82.390)	= 82.390 deg. F
temperature 3	(82.070)	= 82.070 deg. F
temperature 4	(81.960)	= 81.960 deg. F
temperature 5	(81.700)	= 81.700 deg. F
temperature 6	(81.220)	= 81.220 deg. F
temperature 7	(80.760)	= 80.760 deg. F
temperature 8	(80.880)	= 80.880 deg. F
temperature 9	(80.790)	= 80.790 deg. F
temperature 10	(80.380)	= 80.380 deg. F
temperature 11	(80.270)	= 80.270 deg. F
temperature 12	(80.120)	= 80.120 deg. F
temperature 13	(79.510)	= 79.510 deg. F
temperature 14	(78.440)	= 78.440 deg. F
temperature 15	(78.540)	= 78.540 deg. F
temperature 16	(77.860)	= 77.860 deg. F
temperature 17	(76.820)	= 76.820 deg. F
temperature 18	(76.140)	= 76.140 deg. F
temperature 19	(75.500)	= 75.500 deg. F
temperature 20	(74.040)	= 74.040 deg. F
temperature 21	(72.910)	= 72.910 deg. F
temperature 22	(73.500)	= 73.500 deg. F
temperature 23	(73.050)	= 73.050 deg. F
temperature 24	(77.270)	= 77.270 deg. F
dewpoint 1	(54.740)	= 54.740 deg. F , 0.2119 psia
dewpoint 2	(54.390)	= 54.390 deg. F , 0.2092 psia
dewpoint 3	(54.290)	= 54.290 deg. F , 0.2084 psia
dewpoint 4	(55.540)	= 55.540 deg. F , 0.2182 psia
dewpoint 5	(52.200)	= 52.200 deg. F , 0.1931 psia
dewpoint 6	(49.450)	= 49.450 deg. F , 0.1744 psia
pressure 1	(24.6967)	= 24.6967 psia
pressure 2	(24.6962)	= 24.6962 psia

weighted averages, volume and air mass

temperature	=	79.01486 deg. F
pressure	=	24.69620 psia
vapor pressure	=	0.20457 psia
volume	=	2649000 cu. ft.
dry air mass	=	325081.9 lbm

FVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 31

time = 1845 date = 220

sensor		raw data		value	
temperature	1	(82.130)	=	82.130	deg. F
temperature	2	(82.200)	=	82.200	deg. F
temperature	3	(81.850)	=	81.850	deg. F
temperature	4	(81.760)	=	81.760	deg. F
temperature	5	(81.580)	=	81.580	deg. F
temperature	6	(81.160)	=	81.160	deg. F
temperature	7	(80.700)	=	80.700	deg. F
temperature	8	(80.800)	=	80.800	deg. F
temperature	9	(80.760)	=	80.760	deg. F
temperature	10	(80.320)	=	80.320	deg. F
temperature	11	(80.200)	=	80.200	deg. F
temperature	12	(80.080)	=	80.080	deg. F
temperature	13	(79.460)	=	79.460	deg. F
temperature	14	(78.460)	=	78.460	deg. F
temperature	15	(78.570)	=	78.570	deg. F
temperature	16	(77.870)	=	77.870	deg. F
temperature	17	(76.840)	=	76.840	deg. F
temperature	18	(76.200)	=	76.200	deg. F
temperature	19	(75.510)	=	75.510	deg. F
temperature	20	(74.130)	=	74.130	deg. F
temperature	21	(72.910)	=	72.910	deg. F
temperature	22	(73.500)	=	73.500	deg. F
temperature	23	(73.050)	=	73.050	deg. F
temperature	24	(77.270)	=	77.270	deg. F
dewpoint	1	(54.640)	=	54.640	deg. F , 0.2111 psia
dewpoint	2	(54.630)	=	54.630	deg. F , 0.2111 psia
dewpoint	3	(54.340)	=	54.340	deg. F , 0.2088 psia
dewpoint	4	(55.720)	=	55.720	deg. F , 0.2196 psia
dewpoint	5	(52.270)	=	52.270	deg. F , 0.1936 psia
dewpoint	6	(49.510)	=	49.510	deg. F , 0.1747 psia
pressure	1	(25.2768)	=	25.2768	psia
pressure	2	(25.2744)	=	25.2744	psia

weighted averages, volume and air mass

temperature	=	78.96153 deg. F
pressure	=	25.27440 psia
vapor pressure	=	0.20526 psia
volume	=	2649000 cu. ft.
dry air mass	=	332780.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 32

time = 1900 date = 220

sensor		raw data		value	
temperature	1	(82.060)	=	82.060	deg. F
temperature	2	(82.040)	=	82.040	deg. F
temperature	3	(81.800)	=	81.800	deg. F
temperature	4	(81.750)	=	81.750	deg. F
temperature	5	(81.530)	=	81.530	deg. F
temperature	6	(81.170)	=	81.170	deg. F
temperature	7	(80.670)	=	80.670	deg. F
temperature	8	(80.790)	=	80.790	deg. F
temperature	9	(80.750)	=	80.750	deg. F
temperature	10	(80.410)	=	80.410	deg. F
temperature	11	(80.190)	=	80.190	deg. F
temperature	12	(80.100)	=	80.100	deg. F
temperature	13	(79.490)	=	79.490	deg. F
temperature	14	(78.510)	=	78.510	deg. F
temperature	15	(78.640)	=	78.640	deg. F
temperature	16	(77.880)	=	77.880	deg. F
temperature	17	(76.920)	=	76.920	deg. F
temperature	18	(76.250)	=	76.250	deg. F
temperature	19	(75.540)	=	75.540	deg. F
temperature	20	(74.220)	=	74.220	deg. F
temperature	21	(72.970)	=	72.970	deg. F
temperature	22	(73.490)	=	73.490	deg. F
temperature	23	(73.010)	=	73.010	deg. F
temperature	24	(77.290)	=	77.290	deg. F
dewpoint	1	(54.970)	=	54.970	deg. F , 0.2137 psia
dewpoint	2	(54.670)	=	54.670	deg. F , 0.2114 psia
dewpoint	3	(54.380)	=	54.380	deg. F , 0.2091 psia
dewpoint	4	(55.830)	=	55.830	deg. F , 0.2205 psia
dewpoint	5	(52.400)	=	52.400	deg. F , 0.1945 psia
dewpoint	6	(49.800)	=	49.800	deg. F , 0.1766 psia
pressure	1	(25.8571)	=	25.8571	psia
pressure	2	(25.8557)	=	25.8557	psia

weighted averages, volume and air mass

temperature	=	78.96734 deg. F
pressure	=	25.85570 psia
vapor pressure	=	0.20631 psia
volume	=	2649000 cu. ft.
dry air mass	=	340479.2 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 33

time = 1915 date = 220

sensor		raw data		value
temperature	1 (	82.080)	=	82.080 deg. F
temperature	2 (	82.040)	=	82.040 deg. F
temperature	3 (	81.810)	=	81.810 deg. F
temperature	4 (	81.680)	=	81.680 deg. F
temperature	5 (	81.480)	=	81.480 deg. F
temperature	6 (	81.150)	=	81.150 deg. F
temperature	7 (	80.650)	=	80.650 deg. F
temperature	8 (	80.820)	=	80.820 deg. F
temperature	9 (	80.800)	=	80.800 deg. F
temperature	10 (	80.470)	=	80.470 deg. F
temperature	11 (	80.230)	=	80.230 deg. F
temperature	12 (	80.070)	=	80.070 deg. F
temperature	13 (	79.510)	=	79.510 deg. F
temperature	14 (	78.550)	=	78.550 deg. F
temperature	15 (	78.700)	=	78.700 deg. F
temperature	16 (	77.870)	=	77.870 deg. F
temperature	17 (	76.980)	=	76.980 deg. F
temperature	18 (	76.290)	=	76.290 deg. F
temperature	19 (	75.560)	=	75.560 deg. F
temperature	20 (	74.290)	=	74.290 deg. F
temperature	21 (	72.980)	=	72.980 deg. F
temperature	22 (	73.480)	=	73.480 deg. F
temperature	23 (	73.000)	=	73.000 deg. F
temperature	24 (	77.300)	=	77.300 deg. F
dewpoint	1 (	55.200)	=	55.200 deg. F , 0.2155 psia
dewpoint	2 (	54.690)	=	54.690 deg. F , 0.2115 psia
dewpoint	3 (	54.680)	=	54.680 deg. F , 0.2114 psia
dewpoint	4 (	55.980)	=	55.980 deg. F , 0.2217 psia
dewpoint	5 (	52.700)	=	52.700 deg. F , 0.1967 psia
dewpoint	6 (	49.880)	=	49.880 deg. F , 0.1772 psia
pressure	1 (	26.4367)	=	26.4367 psia
pressure	2 (	26.4362)	=	26.4362 psia

weighted averages, volume and air mass

temperature	=	78.97975 deg. F
pressure	=	26.43620 psia
vapor pressure	=	0.20769 psia
volume	=	2649000 cu. ft.
dry air mass	=	348158.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 34

time = 1930. date = 220

sensor	raw data	value
temperature 1	(82.020)	= 82.020 deg. F
temperature 2	(81.990)	= 81.990 deg. F
temperature 3	(81.820)	= 81.820 deg. F
temperature 4	(81.670)	= 81.670 deg. F
temperature 5	(81.460)	= 81.460 deg. F
temperature 6	(81.200)	= 81.200 deg. F
temperature 7	(80.710)	= 80.710 deg. F
temperature 8	(80.790)	= 80.790 deg. F
temperature 9	(80.720)	= 80.720 deg. F
temperature 10	(80.440)	= 80.440 deg. F
temperature 11	(80.300)	= 80.300 deg. F
temperature 12	(80.140)	= 80.140 deg. F
temperature 13	(79.570)	= 79.570 deg. F
temperature 14	(78.600)	= 78.600 deg. F
temperature 15	(78.740)	= 78.740 deg. F
temperature 16	(77.870)	= 77.870 deg. F
temperature 17	(77.030)	= 77.030 deg. F
temperature 18	(76.330)	= 76.330 deg. F
temperature 19	(75.580)	= 75.580 deg. F
temperature 20	(74.370)	= 74.370 deg. F
temperature 21	(73.050)	= 73.050 deg. F
temperature 22	(73.470)	= 73.470 deg. F
temperature 23	(72.980)	= 72.980 deg. F
temperature 24	(77.310)	= 77.310 deg. F
dewpoint 1	(55.230)	= 55.230 deg. F , 0.2157 psia
dewpoint 2	(54.740)	= 54.740 deg. F , 0.2119 psia
dewpoint 3	(54.810)	= 54.810 deg. F , 0.2124 psia
dewpoint 4	(56.180)	= 56.180 deg. F , 0.2233 psia
dewpoint 5	(53.140)	= 53.140 deg. F , 0.1999 psia
dewpoint 6	(50.120)	= 50.120 deg. F , 0.1788 psia
pressure 1	(27.0188)	= 27.0188 psia
pressure 2	(27.0157)	= 27.0157 psia

weighted averages, volume and air mass

temperature	=	78.99520 deg. F
pressure	=	27.01570 psia
vapor pressure	=	0.20896 psia
volume	=	2649000 cu. ft.
dry air mass	=	355823.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 35

time = 1945 date = 220

sensor	raw data	value
temperature 1 (82.030)	=	82.030 deg. F
temperature 2 (81.970)	=	81.970 deg. F
temperature 3 (81.800)	=	81.800 deg. F
temperature 4 (81.650)	=	81.650 deg. F
temperature 5 (81.530)	=	81.530 deg. F
temperature 6 (81.250)	=	81.250 deg. F
temperature 7 (80.730)	=	80.730 deg. F
temperature 8 (80.820)	=	80.820 deg. F
temperature 9 (80.860)	=	80.860 deg. F
temperature 10 (80.560)	=	80.560 deg. F
temperature 11 (80.250)	=	80.250 deg. F
temperature 12 (80.160)	=	80.160 deg. F
temperature 13 (79.640)	=	79.640 deg. F
temperature 14 (78.670)	=	78.670 deg. F
temperature 15 (78.770)	=	78.770 deg. F
temperature 16 (77.900)	=	77.900 deg. F
temperature 17 (77.090)	=	77.090 deg. F
temperature 18 (76.360)	=	76.360 deg. F
temperature 19 (75.630)	=	75.630 deg. F
temperature 20 (74.430)	=	74.430 deg. F
temperature 21 (73.050)	=	73.050 deg. F
temperature 22 (73.480)	=	73.480 deg. F
temperature 23 (72.970)	=	72.970 deg. F
temperature 24 (77.340)	=	77.340 deg. F
dewpoint 1 (55.160)	=	55.160 deg. F , 0.2152 psia
dewpoint 2 (55.060)	=	55.060 deg. F , 0.2144 psia
dewpoint 3 (54.580)	=	54.580 deg. F , 0.2107 psia
dewpoint 4 (56.300)	=	56.300 deg. F , 0.2243 psia
dewpoint 5 (53.410)	=	53.410 deg. F , 0.2018 psia
dewpoint 6 (50.280)	=	50.280 deg. F , 0.1798 psia
pressure 1 (27.5987)	=	27.5987 psia
pressure 2 (27.5967)	=	27.5967 psia

weighted averages, volume and air mass

temperature	=	79.02913 deg. F
pressure	=	27.59670 psia
vapor pressure	=	0.20959 psia
volume	=	2649000 cu. ft.
dry air mass	=	363504.7 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 36

time = 2000 date = 220

sensor	raw data	value
temperature 1	(82.350) =	82.350 deg. F
temperature 2	(82.280) =	82.280 deg. F
temperature 3	(82.040) =	82.040 deg. F
temperature 4	(82.030) =	82.030 deg. F
temperature 5	(81.720) =	81.720 deg. F
temperature 6	(81.530) =	81.530 deg. F
temperature 7	(81.020) =	81.020 deg. F
temperature 8	(81.190) =	81.190 deg. F
temperature 9	(81.100) =	81.100 deg. F
temperature 10	(80.780) =	80.780 deg. F
temperature 11	(80.580) =	80.580 deg. F
temperature 12	(80.460) =	80.460 deg. F
temperature 13	(79.870) =	79.870 deg. F
temperature 14	(78.930) =	78.930 deg. F
temperature 15	(79.020) =	79.020 deg. F
temperature 16	(78.240) =	78.240 deg. F
temperature 17	(77.220) =	77.220 deg. F
temperature 18	(76.460) =	76.460 deg. F
temperature 19	(75.630) =	75.630 deg. F
temperature 20	(74.240) =	74.240 deg. F
temperature 21	(73.020) =	73.020 deg. F
temperature 22	(73.530) =	73.530 deg. F
temperature 23	(73.070) =	73.070 deg. F
temperature 24	(77.410) =	77.410 deg. F
dewpoint 1	(55.650) =	55.650 deg. F , 0.2190 psia
dewpoint 2	(55.330) =	55.330 deg. F , 0.2165 psia
dewpoint 3	(55.270) =	55.270 deg. F , 0.2160 psia
dewpoint 4	(56.480) =	56.480 deg. F , 0.2257 psia
dewpoint 5	(53.380) =	53.380 deg. F , 0.2016 psia
dewpoint 6	(50.950) =	50.950 deg. F , 0.1844 psia
pressure 1	(28.2788) =	28.2788 psia
pressure 2	(28.2766) =	28.2766 psia

weighted averages, volume and air mass

temperature	=	79.24514 deg. F
pressure	=	28.27660 psia
vapor pressure	=	0.21245 psia
volume	=	2649000 cu. ft.
dry air mass	=	372341.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION.

data set 37

time = 2015 date = 220

sensor		raw data		value	
temperature	1 (	82.660	) =	82.660	deg. F
temperature	2 (	82.580	) =	82.580	deg. F
temperature	3 (	82.360	) =	82.360	deg. F
temperature	4 (	82.260	) =	82.260	deg. F
temperature	5 (	82.070	) =	82.070	deg. F
temperature	6 (	81.740	) =	81.740	deg. F
temperature	7 (	81.310	) =	81.310	deg. F
temperature	8 (	81.400	) =	81.400	deg. F
temperature	9 (	81.320	) =	81.320	deg. F
temperature	10 (	80.920	) =	80.920	deg. F
temperature	11 (	80.810	) =	80.810	deg. F
temperature	12 (	80.700	) =	80.700	deg. F
temperature	13 (	80.030	) =	80.030	deg. F
temperature	14 (	79.060	) =	79.060	deg. F
temperature	15 (	79.130	) =	79.130	deg. F
temperature	16 (	78.310	) =	78.310	deg. F
temperature	17 (	77.340	) =	77.340	deg. F
temperature	18 (	76.530	) =	76.530	deg. F
temperature	19 (	75.650	) =	75.650	deg. F
temperature	20 (	74.280	) =	74.280	deg. F
temperature	21 (	73.000	) =	73.000	deg. F
temperature	22 (	73.530	) =	73.530	deg. F
temperature	23 (	73.080	) =	73.080	deg. F
temperature	24 (	77.420	) =	77.420	deg. F
dewpoint	1 (	55.660	) =	55.660	deg. F , 0.2191 psia
dewpoint	2 (	55.480	) =	55.480	deg. F , 0.2177 psia
dewpoint	3 (	55.640	) =	55.640	deg. F , 0.2190 psia
dewpoint	4 (	56.660	) =	56.660	deg. F , 0.2272 psia
dewpoint	5 (	53.900	) =	53.900	deg. F , 0.2055 psia
dewpoint	6 (	50.960	) =	50.960	deg. F , 0.1844 psia
pressure	1 (	28.9598	) =	28.9598	psia
pressure	2 (	28.9580	) =	28.9580	psia

weighted averages, volume and air mass

temperature	=	79.41371	deg. F
pressure	=	28.95800	psia
vapor pressure	=	0.21413	psia
volume	=	2649000	cu. ft.
dry air mass	=	381240.6	lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 38

time = 2030 date = .220

sensor	raw data	value
temperature 1 (82.890)	=	82.890 deg. F
temperature 2 (82.850)	=	82.850 deg. F
temperature 3 (82.520)	=	82.520 deg. F
temperature 4 (82.430)	=	82.430 deg. F
temperature 5 (82.260)	=	82.260 deg. F
temperature 6 (81.910)	=	81.910 deg. F
temperature 7 (81.520)	=	81.520 deg. F
temperature 8 (81.500)	=	81.500 deg. F
temperature 9 (81.440)	=	81.440 deg. F
temperature 10 (81.070)	=	81.070 deg. F
temperature 11 (80.980)	=	80.980 deg. F
temperature 12 (80.810)	=	80.810 deg. F
temperature 13 (80.180)	=	80.180 deg. F
temperature 14 (79.160)	=	79.160 deg. F
temperature 15 (79.220)	=	79.220 deg. F
temperature 16 (78.350)	=	78.350 deg. F
temperature 17 (77.390)	=	77.390 deg. F
temperature 18 (76.560)	=	76.560 deg. F
temperature 19 (75.680)	=	75.680 deg. F
temperature 20 (74.300)	=	74.300 deg. F
temperature 21 (73.020)	=	73.020 deg. F
temperature 22 (73.510)	=	73.510 deg. F
temperature 23 (73.050)	=	73.050 deg. F
temperature 24 (77.480)	=	77.480 deg. F
dewpoint 1 (56.170)	=	56.170 deg. F , 0.2232 psia
dewpoint 2 (56.050)	=	56.050 deg. F , 0.2222 psia
dewpoint 3 (55.930)	=	55.930 deg. F , 0.2213 psia
dewpoint 4 (56.990)	=	56.990 deg. F , 0.2299 psia
dewpoint 5 (54.340)	=	54.340 deg. F , 0.2088 psia
dewpoint 6 (51.720)	=	51.720 deg. F , 0.1897 psia
pressure 1 (29.6391)	=	29.6391 psia
pressure 2 (29.6371)	=	29.6371 psia

weighted averages, volume and air mass

temperature	=	79.52840 deg. F
pressure	=	29.63710 psia
vapor pressure	=	0.21773 psia
volume	=	2649000 cu. ft.
dry air mass	=	390116.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 39

time = 2045 date = 220

sensor	raw data	value
temperature 1 (82.980)	=	82.980 deg. F
temperature 2 (82.960)	=	82.960 deg. F
temperature 3 (82.650)	=	82.650 deg. F
temperature 4 (82.550)	=	82.550 deg. F
temperature 5 (82.420)	=	82.420 deg. F
temperature 6 (82.040)	=	82.040 deg. F
temperature 7 (81.600)	=	81.600 deg. F
temperature 8 (81.620)	=	81.620 deg. F
temperature 9 (81.580)	=	81.580 deg. F
temperature 10 (81.220)	=	81.220 deg. F
temperature 11 (80.990)	=	80.990 deg. F
temperature 12 (80.860)	=	80.860 deg. F
temperature 13 (80.230)	=	80.230 deg. F
temperature 14 (79.250)	=	79.250 deg. F
temperature 15 (79.270)	=	79.270 deg. F
temperature 16 (78.390)	=	78.390 deg. F
temperature 17 (77.470)	=	77.470 deg. F
temperature 18 (76.620)	=	76.620 deg. F
temperature 19 (75.700)	=	75.700 deg. F
temperature 20 (74.400)	=	74.400 deg. F
temperature 21 (73.010)	=	73.010 deg. F
temperature 22 (73.510)	=	73.510 deg. F
temperature 23 (73.040)	=	73.040 deg. F
temperature 24 (77.470)	=	77.470 deg. F
dewpoint 1 (56.360)	=	56.360 deg. F , 0.2247 psia
dewpoint 2 (56.280)	=	56.280 deg. F , 0.2241 psia
dewpoint 3 (56.130)	=	56.130 deg. F , 0.2229 psia
dewpoint 4 (57.210)	=	57.210 deg. F , 0.2317 psia
dewpoint 5 (54.770)	=	54.770 deg. F , 0.2121 psia
dewpoint 6 (51.620)	=	51.620 deg. F , 0.1890 psia
pressure 1 (30.3175)	=	30.3175 psia
pressure 2 (30.3146)	=	30.3146 psia

weighted averages, volume and air mass

temperature	=	79.60590 deg. F
pressure	=	30.31460 psia
vapor pressure	=	0.21939 psia
volume	=	2649000 cu. ft.
dry air mass	=	399021.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 40

time = 2100 date = 220

sensor	raw data	value
temperature 1	(83.020)	= 83.020 deg. F
temperature 2	(82.960)	= 82.960 deg. F
temperature 3	(82.780)	= 82.780 deg. F
temperature 4	(82.570)	= 82.570 deg. F
temperature 5	(82.470)	= 82.470 deg. F
temperature 6	(82.090)	= 82.090 deg. F
temperature 7	(81.610)	= 81.610 deg. F
temperature 8	(81.700)	= 81.700 deg. F
temperature 9	(81.630)	= 81.630 deg. F
temperature 10	(81.280)	= 81.280 deg. F
temperature 11	(81.120)	= 81.120 deg. F
temperature 12	(80.950)	= 80.950 deg. F
temperature 13	(80.310)	= 80.310 deg. F
temperature 14	(79.340)	= 79.340 deg. F
temperature 15	(79.350)	= 79.350 deg. F
temperature 16	(78.420)	= 78.420 deg. F
temperature 17	(77.510)	= 77.510 deg. F
temperature 18	(76.640)	= 76.640 deg. F
temperature 19	(75.730)	= 75.730 deg. F
temperature 20	(74.460)	= 74.460 deg. F
temperature 21	(73.020)	= 73.020 deg. F
temperature 22	(73.470)	= 73.470 deg. F
temperature 23	(73.030)	= 73.030 deg. F
temperature 24	(77.480)	= 77.480 deg. F
dewpoint 1	(56.390)	= 56.390 deg. F , 0.2250 psia
dewpoint 2	(56.510)	= 56.510 deg. F , 0.2260 psia
dewpoint 3	(56.260)	= 56.260 deg. F , 0.2239 psia
dewpoint 4	(57.380)	= 57.380 deg. F , 0.2332 psia
dewpoint 5	(54.880)	= 54.880 deg. F , 0.2130 psia
dewpoint 6	(51.660)	= 51.660 deg. F , 0.1893 psia
pressure 1	(30.9925)	= 30.9925 psia
pressure 2	(30.9904)	= 30.9904 psia

weighted averages, volume and air mass

temperature	=	79.65609 deg. F
pressure	=	30.99040 psia
vapor pressure	=	0.22042 psia
volume	=	2649000 cu. ft.
dry air mass	=	407930.2 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 41

time = 2115 date = .220

sensor	raw data	value
temperature 1 (83.070)	=	83.070 deg. F
temperature 2 (83.050)	=	83.050 deg. F
temperature 3 (82.940)	=	82.940 deg. F
temperature 4 (82.700)	=	82.700 deg. F
temperature 5 (82.470)	=	82.470 deg. F
temperature 6 (82.180)	=	82.180 deg. F
temperature 7 (81.690)	=	81.690 deg. F
temperature 8 (81.720)	=	81.720 deg. F
temperature 9 (81.700)	=	81.700 deg. F
temperature 10 (81.290)	=	81.290 deg. F
temperature 11 (81.120)	=	81.120 deg. F
temperature 12 (81.030)	=	81.030 deg. F
temperature 13 (80.390)	=	80.390 deg. F
temperature 14 (79.410)	=	79.410 deg. F
temperature 15 (79.400)	=	79.400 deg. F
temperature 16 (78.440)	=	78.440 deg. F
temperature 17 (77.600)	=	77.600 deg. F
temperature 18 (76.700)	=	76.700 deg. F
temperature 19 (75.750)	=	75.750 deg. F
temperature 20 (74.490)	=	74.490 deg. F
temperature 21 (73.070)	=	73.070 deg. F
temperature 22 (73.470)	=	73.470 deg. F
temperature 23 (73.000)	=	73.000 deg. F
temperature 24 (77.530)	=	77.530 deg. F
dewpoint 1 (56.490)	=	56.490 deg. F , 0.2258 psia
dewpoint 2 (56.650)	=	56.650 deg. F , 0.2271 psia
dewpoint 3 (56.560)	=	56.560 deg. F , 0.2264 psia
dewpoint 4 (57.540)	=	57.540 deg. F , 0.2345 psia
dewpoint 5 (55.130)	=	55.130 deg. F , 0.2149 psia
dewpoint 6 (51.970)	=	51.970 deg. F , 0.1914 psia
pressure 1 (31.6628)	=	31.6628 psia
pressure 2 (31.6626)	=	31.6626 psia

weighted averages, volume and air mass

temperature	=	79.71016 deg. F
pressure	=	31.66260 psia
vapor pressure	=	0.22205 psia
volume	=	2649000 cu. ft.
dry air mass	=	416778.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 42

time = 2130 date = 220

sensor		raw data		value	
temperature	1 (83.110)	=	83.110	deg. F	
temperature	2 (83.120)	=	83.120	deg. F	
temperature	3 (82.940)	=	82.940	deg. F	
temperature	4 (82.720)	=	82.720	deg. F	
temperature	5 (82.540)	=	82.540	deg. F	
temperature	6 (82.190)	=	82.190	deg. F	
temperature	7 (81.710)	=	81.710	deg. F	
temperature	8 (81.800)	=	81.800	deg. F	
temperature	9 (81.810)	=	81.810	deg. F	
temperature	10 (81.390)	=	81.390	deg. F	
temperature	11 (81.220)	=	81.220	deg. F	
temperature	12 (81.100)	=	81.100	deg. F	
temperature	13 (80.430)	=	80.430	deg. F	
temperature	14 (79.480)	=	79.480	deg. F	
temperature	15 (79.480)	=	79.480	deg. F	
temperature	16 (78.490)	=	78.490	deg. F	
temperature	17 (77.630)	=	77.630	deg. F	
temperature	18 (76.730)	=	76.730	deg. F	
temperature	19 (75.770)	=	75.770	deg. F	
temperature	20 (74.550)	=	74.550	deg. F	
temperature	21 (73.040)	=	73.040	deg. F	
temperature	22 (73.470)	=	73.470	deg. F	
temperature	23 (73.000)	=	73.000	deg. F	
temperature	24 (77.520)	=	77.520	deg. F	
dewpoint	1 (56.950)	=	56.950	deg. F	, 0.2296 psia
dewpoint	2 (56.810)	=	56.810	deg. F	, 0.2284 psia
dewpoint	3 (56.720)	=	56.720	deg. F	, 0.2277 psia
dewpoint	4 (57.740)	=	57.740	deg. F	, 0.2362 psia
dewpoint	5 (55.740)	=	55.740	deg. F	, 0.2197 psia
dewpoint	6 (52.250)	=	52.250	deg. F	, 0.1934 psia
pressure	1 (32.3434)	=	32.3434	psia	
pressure	2 (32.3417)	=	32.3417	psia	

weighted averages, volume and air mass

temperature	=	79.75689 deg. F
pressure	=	32.34170 psia
vapor pressure	=	0.22442 psia
volume	=	2649000 cu. ft.
dry air mass	=	425712.2 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 43

time = 2145 date = 220

sensor	raw data	value
temperature 1	(83.110)	= 83.110 deg. F
temperature 2	(83.220)	= 83.220 deg. F
temperature 3	(82.830)	= 82.830 deg. F
temperature 4	(82.750)	= 82.750 deg. F
temperature 5	(82.570)	= 82.570 deg. F
temperature 6	(82.310)	= 82.310 deg. F
temperature 7	(81.820)	= 81.820 deg. F
temperature 8	(81.870)	= 81.870 deg. F
temperature 9	(81.810)	= 81.810 deg. F
temperature 10	(81.450)	= 81.450 deg. F
temperature 11	(81.290)	= 81.290 deg. F
temperature 12	(81.150)	= 81.150 deg. F
temperature 13	(80.500)	= 80.500 deg. F
temperature 14	(79.540)	= 79.540 deg. F
temperature 15	(79.540)	= 79.540 deg. F
temperature 16	(78.520)	= 78.520 deg. F
temperature 17	(77.680)	= 77.680 deg. F
temperature 18	(76.760)	= 76.760 deg. F
temperature 19	(75.780)	= 75.780 deg. F
temperature 20	(74.610)	= 74.610 deg. F
temperature 21	(73.030)	= 73.030 deg. F
temperature 22	(73.470)	= 73.470 deg. F
temperature 23	(72.990)	= 72.990 deg. F
temperature 24	(77.540)	= 77.540 deg. F
dewpoint 1	(57.020)	= 57.020 deg. F , 0.2302 psia
dewpoint 2	(57.100)	= 57.100 deg. F , 0.2308 psia
dewpoint 3	(56.950)	= 56.950 deg. F , 0.2296 psia
dewpoint 4	(57.840)	= 57.840 deg. F , 0.2371 psia
dewpoint 5	(56.080)	= 56.080 deg. F , 0.2225 psia
dewpoint 6	(52.490)	= 52.490 deg. F , 0.1951 psia
pressure 1	(33.0208)	= 33.0208 psia
pressure 2	(33.0193)	= 33.0193 psia

weighted averages, volume and air mass

temperature	=	79.79733 deg. F
pressure	=	33.01930 psia
vapor pressure	=	0.22612 psia
volume	=	2649000 cu. ft.
dry air mass	=	434638.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 44

time = 2200 date = 220

sensor	raw data	value
temperature 1	(83.040) =	83.040 deg. F
temperature 2	(83.080) =	83.080 deg. F
temperature 3	(82.830) =	82.830 deg. F
temperature 4	(82.690) =	82.690 deg. F
temperature 5	(82.480) =	82.480 deg. F
temperature 6	(82.220) =	82.220 deg. F
temperature 7	(81.760) =	81.760 deg. F
temperature 8	(81.800) =	81.800 deg. F
temperature 9	(81.790) =	81.790 deg. F
temperature 10	(81.410) =	81.410 deg. F
temperature 11	(81.240) =	81.240 deg. F
temperature 12	(81.090) =	81.090 deg. F
temperature 13	(80.500) =	80.500 deg. F
temperature 14	(79.530) =	79.530 deg. F
temperature 15	(79.530) =	79.530 deg. F
temperature 16	(78.470) =	78.470 deg. F
temperature 17	(77.680) =	77.680 deg. F
temperature 18	(76.870) =	76.870 deg. F
temperature 19	(75.790) =	75.790 deg. F
temperature 20	(74.700) =	74.700 deg. F
temperature 21	(73.080) =	73.080 deg. F
temperature 22	(73.420) =	73.420 deg. F
temperature 23	(72.890) =	72.890 deg. F
temperature 24	(77.520) =	77.520 deg. F
dewpoint 1	(57.430) =	57.430 deg. F , 0.2336 psia
dewpoint 2	(57.270) =	57.270 deg. F , 0.2322 psia
dewpoint 3	(57.180) =	57.180 deg. F , 0.2315 psia
dewpoint 4	(58.180) =	58.180 deg. F , 0.2400 psia
dewpoint 5	(56.980) =	56.980 deg. F , 0.2298 psia
dewpoint 6	(52.700) =	52.700 deg. F , 0.1967 psia
pressure 1	(33.6603) =	33.6603 psia
pressure 2	(33.6607) =	33.6607 psia

weighted averages, volume and air mass

temperature	=	79.76308 deg. F
pressure	=	33.66070 psia
vapor pressure	=	0.22912 psia
volume	=	2649000 cu. ft.
dry air mass	=	443128.2 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 45

time = 2215 date = 220

sensor		raw data	=	value	
temperature	1	(83.140)	=	83.140	deg. F
temperature	2	(83.090)	=	83.090	deg. F
temperature	3	(82.900)	=	82.900	deg. F
temperature	4	(82.780)	=	82.780	deg. F
temperature	5	(82.580)	=	82.580	deg. F
temperature	6	(82.320)	=	82.320	deg. F
temperature	7	(81.780)	=	81.780	deg. F
temperature	8	(81.900)	=	81.900	deg. F
temperature	9	(81.910)	=	81.910	deg. F
temperature	10	(81.480)	=	81.480	deg. F
temperature	11	(81.340)	=	81.340	deg. F
temperature	12	(81.210)	=	81.210	deg. F
temperature	13	(80.600)	=	80.600	deg. F
temperature	14	(79.640)	=	79.640	deg. F
temperature	15	(79.650)	=	79.650	deg. F
temperature	16	(78.580)	=	78.580	deg. F
temperature	17	(77.760)	=	77.760	deg. F
temperature	18	(76.900)	=	76.900	deg. F
temperature	19	(75.820)	=	75.820	deg. F
temperature	20	(74.700)	=	74.700	deg. F
temperature	21	(73.090)	=	73.090	deg. F
temperature	22	(73.430)	=	73.430	deg. F
temperature	23	(72.950)	=	72.950	deg. F
temperature	24	(77.540)	=	77.540	deg. F
dewpoint	1	(57.420)	=	57.420	deg. F , 0.2335 psia
dewpoint	2	(57.460)	=	57.460	deg. F , 0.2338 psia
dewpoint	3	(57.320)	=	57.320	deg. F , 0.2327 psia
dewpoint	4	(58.350)	=	58.350	deg. F , 0.2414 psia
dewpoint	5	(57.350)	=	57.350	deg. F , 0.2329 psia
dewpoint	6	(53.030)	=	53.030	deg. F , 0.1991 psia
pressure	1	(34.3394)	=	34.3394	psia
pressure	2	(34.3383)	=	34.3383	psia

weighted averages, volume and air mass

temperature	=	79.83779	deg. F
pressure	=	34.33830	psia
vapor pressure	=	0.23065	psia
volume	=	2649000	cu. ft.
dry air mass	=	452026.6	lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 46

time = 2230 date = 220

sensor	raw data	value
temperature 1	(83.210) =	83.210 deg. F
temperature 2	(83.130) =	83.130 deg. F
temperature 3	(82.860) =	82.860 deg. F
temperature 4	(82.840) =	82.840 deg. F
temperature 5	(82.650) =	82.650 deg. F
temperature 6	(82.400) =	82.400 deg. F
temperature 7	(81.860) =	81.860 deg. F
temperature 8	(81.980) =	81.980 deg. F
temperature 9	(81.970) =	81.970 deg. F
temperature 10	(81.560) =	81.560 deg. F
temperature 11	(81.410) =	81.410 deg. F
temperature 12	(81.260) =	81.260 deg. F
temperature 13	(80.680) =	80.680 deg. F
temperature 14	(79.710) =	79.710 deg. F
temperature 15	(79.700) =	79.700 deg. F
temperature 16	(78.610) =	78.610 deg. F
temperature 17	(77.810) =	77.810 deg. F
temperature 18	(76.970) =	76.970 deg. F
temperature 19	(75.840) =	75.840 deg. F
temperature 20	(74.690) =	74.690 deg. F
temperature 21	(73.090) =	73.090 deg. F
temperature 22	(73.420) =	73.420 deg. F
temperature 23	(72.930) =	72.930 deg. F
temperature 24	(77.550) =	77.550 deg. F
dewpoint 1	(57.690) =	57.690 deg. F , 0.2358 psia
dewpoint 2	(57.730) =	57.730 deg. F , 0.2361 psia
dewpoint 3	(57.650) =	57.650 deg. F , 0.2354 psia
dewpoint 4	(58.590) =	58.590 deg. F , 0.2435 psia
dewpoint 5	(57.500) =	57.500 deg. F , 0.2342 psia
dewpoint 6	(53.290) =	53.290 deg. F , 0.2010 psia
pressure 1	(35.0150) =	35.0150 psia
pressure 2	(35.0136) =	35.0136 psia

weighted averages, volume and air mass

temperature	=	79.88464 deg. F
pressure	=	35.01360 psia
vapor pressure	=	0.23281 psia
volume	=	2649000 cu. ft.
dry air mass	=	460907.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 47

time = 2245 date = 220

sensor	raw data	value
temperature 1	(83.210) =	83.210 deg. F
temperature 2	(83.200) =	83.200 deg. F
temperature 3	(82.930) =	82.930 deg. F
temperature 4	(82.890) =	82.890 deg. F
temperature 5	(82.710) =	82.710 deg. F
temperature 6	(82.410) =	82.410 deg. F
temperature 7	(81.880) =	81.880 deg. F
temperature 8	(82.000) =	82.000 deg. F
temperature 9	(82.040) =	82.040 deg. F
temperature 10	(81.670) =	81.670 deg. F
temperature 11	(81.540) =	81.540 deg. F
temperature 12	(81.340) =	81.340 deg. F
temperature 13	(80.740) =	80.740 deg. F
temperature 14	(79.790) =	79.790 deg. F
temperature 15	(79.760) =	79.760 deg. F
temperature 16	(78.680) =	78.680 deg. F
temperature 17	(77.880) =	77.880 deg. F
temperature 18	(77.040) =	77.040 deg. F
temperature 19	(75.850) =	75.850 deg. F
temperature 20	(74.740) =	74.740 deg. F
temperature 21	(73.120) =	73.120 deg. F
temperature 22	(73.420) =	73.420 deg. F
temperature 23	(72.900) =	72.900 deg. F
temperature 24	(77.560) =	77.560 deg. F
dewpoint 1	(57.560) =	57.560 deg. F , 0.2347 psia
dewpoint 2	(58.020) =	58.020 deg. F , 0.2386 psia
dewpoint 3	(57.740) =	57.740 deg. F , 0.2362 psia
dewpoint 4	(58.650) =	58.650 deg. F , 0.2441 psia
dewpoint 5	(57.480) =	57.480 deg. F , 0.2340 psia
dewpoint 6	(53.520) =	53.520 deg. F , 0.2027 psia
pressure 1	(35.6889) =	35.6889 psia
pressure 2	(35.6880) =	35.6880 psia

weighted averages, volume and air mass

temperature	=	79.93662 deg. F
pressure	=	35.68800 psia
vapor pressure	=	0.23353 psia
volume	=	2649000 cu. ft.
dry air mass	=	469790.0 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 48

time = 2300 date = 220

sensor	raw data	value
temperature 1	(83.170) =	83.170 deg. F
temperature 2	(83.230) =	83.230 deg. F
temperature 3	(82.970) =	82.970 deg. F
temperature 4	(82.840) =	82.840 deg. F
temperature 5	(82.680) =	82.680 deg. F
temperature 6	(82.500) =	82.500 deg. F
temperature 7	(82.010) =	82.010 deg. F
temperature 8	(82.090) =	82.090 deg. F
temperature 9	(82.120) =	82.120 deg. F
temperature 10	(81.620) =	81.620 deg. F
temperature 11	(81.540) =	81.540 deg. F
temperature 12	(81.390) =	81.390 deg. F
temperature 13	(80.750) =	80.750 deg. F
temperature 14	(79.840) =	79.840 deg. F
temperature 15	(79.810) =	79.810 deg. F
temperature 16	(78.740) =	78.740 deg. F
temperature 17	(77.880) =	77.880 deg. F
temperature 18	(77.100) =	77.100 deg. F
temperature 19	(75.870) =	75.870 deg. F
temperature 20	(74.760) =	74.760 deg. F
temperature 21	(73.140) =	73.140 deg. F
temperature 22	(73.410) =	73.410 deg. F
temperature 23	(72.910) =	72.910 deg. F
temperature 24	(77.570) =	77.570 deg. F
dewpoint 1	(58.310) =	58.310 deg. F , 0.2411 psia
dewpoint 2	(58.140) =	58.140 deg. F , 0.2396 psia
dewpoint 3	(57.960) =	57.960 deg. F , 0.2381 psia
dewpoint 4	(58.880) =	58.880 deg. F , 0.2461 psia
dewpoint 5	(57.800) =	57.800 deg. F , 0.2367 psia
dewpoint 6	(53.630) =	53.630 deg. F , 0.2035 psia
pressure 1	(36.3610) =	36.3610 psia
pressure 2	(36.3601) =	36.3601 psia

weighted averages, volume and air mass

temperature	=	79.96555 deg. F
pressure	=	36.36010 psia
vapor pressure	=	0.23599 psia
volume	=	2649000 cu. ft.
dry air mass	=	478637.3 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 49

time = 2315 date = 220

sensor		raw data	=	value	
temperature	1	(83.180)	=	83.180	deg. F
temperature	2	(83.140)	=	83.140	deg. F
temperature	3	(82.970)	=	82.970	deg. F
temperature	4	(82.890)	=	82.890	deg. F
temperature	5	(82.740)	=	82.740	deg. F
temperature	6	(82.470)	=	82.470	deg. F
temperature	7	(82.030)	=	82.030	deg. F
temperature	8	(82.080)	=	82.080	deg. F
temperature	9	(82.130)	=	82.130	deg. F
temperature	10	(81.690)	=	81.690	deg. F
temperature	11	(81.560)	=	81.560	deg. F
temperature	12	(81.400)	=	81.400	deg. F
temperature	13	(80.760)	=	80.760	deg. F
temperature	14	(79.870)	=	79.870	deg. F
temperature	15	(79.850)	=	79.850	deg. F
temperature	16	(78.740)	=	78.740	deg. F
temperature	17	(77.910)	=	77.910	deg. F
temperature	18	(77.140)	=	77.140	deg. F
temperature	19	(75.900)	=	75.900	deg. F
temperature	20	(74.790)	=	74.790	deg. F
temperature	21	(73.150)	=	73.150	deg. F
temperature	22	(73.390)	=	73.390	deg. F
temperature	23	(72.850)	=	72.850	deg. F
temperature	24	(77.570)	=	77.570	deg. F
dewpoint	1	(58.090)	=	58.090	deg. F , 0.2392 psia
dewpoint	2	(58.500)	=	58.500	deg. F , 0.2427 psia
dewpoint	3	(58.150)	=	58.150	deg. F , 0.2397 psia
dewpoint	4	(59.120)	=	59.120	deg. F , 0.2482 psia
dewpoint	5	(58.010)	=	58.010	deg. F , 0.2385 psia
dewpoint	6	(54.040)	=	54.040	deg. F , 0.2066 psia

pressure	1	(37.0178)	=	37.0178	psia
pressure	2	(37.0169)	=	37.0169	psia

weighted averages, volume and air mass

temperature	=	79.97714	deg. F
pressure	=	37.01690	psia
vapor pressure	=	0.23763	psia
volume	=	2649000	cu. ft.
dry air mass	=	487307.7	lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 50

time = 2330 date = 220

sensor	raw data	value
temperature 1	(82.970)	= 82.970 deg. F
temperature 2	(82.980)	= 82.980 deg. F
temperature 3	(82.820)	= 82.820 deg. F
temperature 4	(82.740)	= 82.740 deg. F
temperature 5	(82.570)	= 82.570 deg. F
temperature 6	(82.380)	= 82.380 deg. F
temperature 7	(81.830)	= 81.830 deg. F
temperature 8	(81.970)	= 81.970 deg. F
temperature 9	(81.930)	= 81.930 deg. F
temperature 10	(81.600)	= 81.600 deg. F
temperature 11	(81.470)	= 81.470 deg. F
temperature 12	(81.310)	= 81.310 deg. F
temperature 13	(80.670)	= 80.670 deg. F
temperature 14	(79.830)	= 79.830 deg. F
temperature 15	(79.810)	= 79.810 deg. F
temperature 16	(78.680)	= 78.680 deg. F
temperature 17	(77.900)	= 77.900 deg. F
temperature 18	(77.170)	= 77.170 deg. F
temperature 19	(75.910)	= 75.910 deg. F
temperature 20	(74.860)	= 74.860 deg. F
temperature 21	(73.150)	= 73.150 deg. F
temperature 22	(73.390)	= 73.390 deg. F
temperature 23	(72.840)	= 72.840 deg. F
temperature 24	(77.540)	= 77.540 deg. F
dewpoint 1	(58.600)	= 58.600 deg. F , 0.2436 psia
dewpoint 2	(58.550)	= 58.550 deg. F , 0.2432 psia
dewpoint 3	(58.300)	= 58.300 deg. F , 0.2410 psia
dewpoint 4	(59.220)	= 59.220 deg. F , 0.2491 psia
dewpoint 5	(58.150)	= 58.150 deg. F , 0.2397 psia
dewpoint 6	(54.610)	= 54.610 deg. F , 0.2109 psia
pressure 1	(37.6250)	= 37.6250 psia
pressure 2	(37.6247)	= 37.6247 psia

weighted averages, volume and air mass

temperature	=	79.89157 deg. F
pressure	=	37.62470 psia
vapor pressure	=	0.23954 psia
volume	=	2649000 cu. ft.
dry air mass	=	495414.0 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 51

time = 2345 date = 220

sensor	raw data	value
temperature 1	(83.100) =	83.100 deg. F
temperature 2	(83.020) =	83.020 deg. F
temperature 3	(82.760) =	82.760 deg. F
temperature 4	(82.830) =	82.830 deg. F
temperature 5	(82.640) =	82.640 deg. F
temperature 6	(82.460) =	82.460 deg. F
temperature 7	(81.910) =	81.910 deg. F
temperature 8	(82.070) =	82.070 deg. F
temperature 9	(82.050) =	82.050 deg. F
temperature 10	(81.630) =	81.630 deg. F
temperature 11	(81.580) =	81.580 deg. F
temperature 12	(81.390) =	81.390 deg. F
temperature 13	(80.830) =	80.830 deg. F
temperature 14	(79.930) =	79.930 deg. F
temperature 15	(79.920) =	79.920 deg. F
temperature 16	(78.770) =	78.770 deg. F
temperature 17	(78.000) =	78.000 deg. F
temperature 18	(77.220) =	77.220 deg. F
temperature 19	(75.940) =	75.940 deg. F
temperature 20	(74.850) =	74.850 deg. F
temperature 21	(73.120) =	73.120 deg. F
temperature 22	(73.400) =	73.400 deg. F
temperature 23	(72.860) =	72.860 deg. F
temperature 24	(77.570) =	77.570 deg. F
dewpoint 1	(58.820) =	58.820 deg. F , 0.2455 psia
dewpoint 2	(58.660) =	58.660 deg. F , 0.2441 psia
dewpoint 3	(58.580) =	58.580 deg. F , 0.2434 psia
dewpoint 4	(59.430) =	59.430 deg. F , 0.2510 psia
dewpoint 5	(58.550) =	58.550 deg. F , 0.2432 psia
dewpoint 6	(54.450) =	54.450 deg. F , 0.2097 psia
pressure 1	(38.2990) =	38.2990 psia
pressure 2	(38.2990) =	38.2990 psia

weighted averages, volume and air mass

temperature	=	79.95952 deg. F
pressure	=	38.29900 psia
vapor pressure	=	0.24122 psia
volume	=	2649000 cu. ft.
dry air mass	=	504263.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 52

time = 0 date = 221

sensor	raw data	value
temperature 1	(83.070)	= 83.070 deg. F
temperature 2	(83.110)	= 83.110 deg. F
temperature 3	(82.880)	= 82.880 deg. F
temperature 4	(82.860)	= 82.860 deg. F
temperature 5	(82.700)	= 82.700 deg. F
temperature 6	(82.580)	= 82.580 deg. F
temperature 7	(82.020)	= 82.020 deg. F
temperature 8	(82.140)	= 82.140 deg. F
temperature 9	(82.190)	= 82.190 deg. F
temperature 10	(81.710)	= 81.710 deg. F
temperature 11	(81.670)	= 81.670 deg. F
temperature 12	(81.500)	= 81.500 deg. F
temperature 13	(80.890)	= 80.890 deg. F
temperature 14	(79.990)	= 79.990 deg. F
temperature 15	(80.000)	= 80.000 deg. F
temperature 16	(78.820)	= 78.820 deg. F
temperature 17	(78.040)	= 78.040 deg. F
temperature 18	(77.260)	= 77.260 deg. F
temperature 19	(75.950)	= 75.950 deg. F
temperature 20	(74.820)	= 74.820 deg. F
temperature 21	(73.150)	= 73.150 deg. F
temperature 22	(73.390)	= 73.390 deg. F
temperature 23	(72.830)	= 72.830 deg. F
temperature 24	(77.590)	= 77.590 deg. F
dewpoint 1	(59.120)	= 59.120 deg. F , 0.2482 psia
dewpoint 2	(58.980)	= 58.980 deg. F , 0.2470 psia
dewpoint 3	(58.740)	= 58.740 deg. F , 0.2448 psia
dewpoint 4	(59.570)	= 59.570 deg. F , 0.2522 psia
dewpoint 5	(58.660)	= 58.660 deg. F , 0.2441 psia
dewpoint 6	(54.660)	= 54.660 deg. F , 0.2113 psia

pressure 1	(38.9753)	= 38.9753 psia
pressure 2	(38.9730)	= 38.9730 psia

weighted averages, volume and air mass

temperature	= 80.02046 deg. F
pressure	= 38.97300 psia
vapor pressure	= 0.24303 psia
volume	= 2649000 cu. ft.
dry air mass	= 513112.4 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 53

time = 15 date = 221

sensor	raw data	value
temperature 1	(83.180)	= 83.180 deg. F
temperature 2	(83.120)	= 83.120 deg. F
temperature 3	(82.920)	= 82.920 deg. F
temperature 4	(82.920)	= 82.920 deg. F
temperature 5	(82.730)	= 82.730 deg. F
temperature 6	(82.650)	= 82.650 deg. F
temperature 7	(82.080)	= 82.080 deg. F
temperature 8	(82.190)	= 82.190 deg. F
temperature 9	(82.260)	= 82.260 deg. F
temperature 10	(81.860)	= 81.860 deg. F
temperature 11	(81.760)	= 81.760 deg. F
temperature 12	(81.530)	= 81.530 deg. F
temperature 13	(80.950)	= 80.950 deg. F
temperature 14	(80.070)	= 80.070 deg. F
temperature 15	(80.050)	= 80.050 deg. F
temperature 16	(78.880)	= 78.880 deg. F
temperature 17	(78.090)	= 78.090 deg. F
temperature 18	(77.300)	= 77.300 deg. F
temperature 19	(75.970)	= 75.970 deg. F
temperature 20	(74.890)	= 74.890 deg. F
temperature 21	(73.200)	= 73.200 deg. F
temperature 22	(73.380)	= 73.380 deg. F
temperature 23	(72.860)	= 72.860 deg. F
temperature 24	(77.600)	= 77.600 deg. F
dewpoint 1	(59.150)	= 59.150 deg. F , 0.2485 psia
dewpoint 2	(58.940)	= 58.940 deg. F , 0.2466 psia
dewpoint 3	(58.650)	= 58.650 deg. F , 0.2441 psia
dewpoint 4	(59.840)	= 59.840 deg. F , 0.2547 psia
dewpoint 5	(58.790)	= 58.790 deg. F , 0.2453 psia
dewpoint 6	(55.200)	= 55.200 deg. F , 0.2155 psia
pressure 1	(39.6494)	= 39.6494 psia
pressure 2	(39.6489)	= 39.6489 psia

weighted averages, volume and air mass

temperature	=	80.07612 deg. F
pressure	=	39.64890 psia
vapor pressure	=	0.24396 psia
volume	=	2649000 cu. ft.
dry air mass	=	522000.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 54

time = 30 date = 221

sensor		raw data		value	
temperature	1	(83.220)	=	83.220 deg. F	
temperature	2	(83.240)	=	83.240 deg. F	
temperature	3	(83.050)	=	83.050 deg. F	
temperature	4	(82.960)	=	82.960 deg. F	
temperature	5	(82.750)	=	82.750 deg. F	
temperature	6	(82.680)	=	82.680 deg. F	
temperature	7	(82.090)	=	82.090 deg. F	
temperature	8	(82.250)	=	82.250 deg. F	
temperature	9	(82.270)	=	82.270 deg. F	
temperature	10	(81.890)	=	81.890 deg. F	
temperature	11	(81.800)	=	81.800 deg. F	
temperature	12	(81.590)	=	81.590 deg. F	
temperature	13	(81.030)	=	81.030 deg. F	
temperature	14	(80.110)	=	80.110 deg. F	
temperature	15	(80.080)	=	80.080 deg. F	
temperature	16	(78.910)	=	78.910 deg. F	
temperature	17	(78.140)	=	78.140 deg. F	
temperature	18	(77.320)	=	77.320 deg. F	
temperature	19	(75.980)	=	75.980 deg. F	
temperature	20	(74.900)	=	74.900 deg. F	
temperature	21	(73.210)	=	73.210 deg. F	
temperature	22	(73.350)	=	73.350 deg. F	
temperature	23	(72.820)	=	72.820 deg. F	
temperature	24	(77.590)	=	77.590 deg. F	
dewpoint	1	(59.110)	=	59.110 deg. F	0.2481 psia
dewpoint	2	(59.300)	=	59.300 deg. F	0.2498 psia
dewpoint	3	(58.940)	=	58.940 deg. F	0.2466 psia
dewpoint	4	(59.940)	=	59.940 deg. F	0.2556 psia
dewpoint	5	(58.880)	=	58.880 deg. F	0.2461 psia
dewpoint	6	(55.220)	=	55.220 deg. F	0.2156 psia
pressure	1	(40.3223)	=	40.3223 psia	
pressure	2	(40.3214)	=	40.3214 psia	

weighted averages, volume and air mass

temperature	=	80.11164 deg. F
pressure	=	40.32140 psia
vapor pressure	=	0.24532 psia
volume	=	2649000 cu. ft.
dry air mass	=	530856.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 55

time = 45 date = 221

sensor		raw data		value	
temperature	1	(83.220)	=	83.220	deg. F
temperature	2	(83.220)	=	83.220	deg. F
temperature	3	(83.000)	=	83.000	deg. F
temperature	4	(83.100)	=	83.100	deg. F
temperature	5	(82.870)	=	82.870	deg. F
temperature	6	(82.780)	=	82.780	deg. F
temperature	7	(82.120)	=	82.120	deg. F
temperature	8	(82.310)	=	82.310	deg. F
temperature	9	(82.330)	=	82.330	deg. F
temperature	10	(81.880)	=	81.880	deg. F
temperature	11	(81.830)	=	81.830	deg. F
temperature	12	(81.650)	=	81.650	deg. F
temperature	13	(81.060)	=	81.060	deg. F
temperature	14	(80.160)	=	80.160	deg. F
temperature	15	(80.120)	=	80.120	deg. F
temperature	16	(78.970)	=	78.970	deg. F
temperature	17	(78.170)	=	78.170	deg. F
temperature	18	(77.360)	=	77.360	deg. F
temperature	19	(76.020)	=	76.020	deg. F
temperature	20	(74.890)	=	74.890	deg. F
temperature	21	(73.210)	=	73.210	deg. F
temperature	22	(73.340)	=	73.340	deg. F
temperature	23	(72.840)	=	72.840	deg. F
temperature	24	(77.610)	=	77.610	deg. F
dewpoint	1	(59.390)	=	59.390	deg. F , 0.2506 psia
dewpoint	2	(59.580)	=	59.580	deg. F , 0.2523 psia
dewpoint	3	(59.400)	=	59.400	deg. F , 0.2507 psia
dewpoint	4	(60.070)	=	60.070	deg. F , 0.2568 psia
dewpoint	5	(59.140)	=	59.140	deg. F , 0.2484 psia
dewpoint	6	(55.400)	=	55.400	deg. F , 0.2171 psia
pressure	1	(40.9952)	=	40.9952	psia
pressure	2	(40.9950)	=	40.9950	psia

weighted averages, volume and air mass

temperature	=	80.14913	deg. F
pressure	=	40.99500	psia
vapor pressure	=	0.24774	psia
volume	=	2649000	cu. ft.
dry air mass	=	539709.6	lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 56

time = 100 date = 221

sensor	raw data	value
temperature 1	(83.290)	= 83.290 deg. F
temperature 2	(83.290)	= 83.290 deg. F
temperature 3	(83.020)	= 83.020 deg. F
temperature 4	(83.070)	= 83.070 deg. F
temperature 5	(82.840)	= 82.840 deg. F
temperature 6	(82.800)	= 82.800 deg. F
temperature 7	(82.250)	= 82.250 deg. F
temperature 8	(82.320)	= 82.320 deg. F
temperature 9	(82.410)	= 82.410 deg. F
temperature 10	(81.940)	= 81.940 deg. F
temperature 11	(81.850)	= 81.850 deg. F
temperature 12	(81.700)	= 81.700 deg. F
temperature 13	(81.090)	= 81.090 deg. F
temperature 14	(80.220)	= 80.220 deg. F
temperature 15	(80.160)	= 80.160 deg. F
temperature 16	(79.030)	= 79.030 deg. F
temperature 17	(78.210)	= 78.210 deg. F
temperature 18	(77.370)	= 77.370 deg. F
temperature 19	(76.040)	= 76.040 deg. F
temperature 20	(74.950)	= 74.950 deg. F
temperature 21	(73.190)	= 73.190 deg. F
temperature 22	(73.350)	= 73.350 deg. F
temperature 23	(72.830)	= 72.830 deg. F
temperature 24	(77.610)	= 77.610 deg. F
dewpoint 1	(59.670)	= 59.670 deg. F , 0.2531 psia
dewpoint 2	(59.790)	= 59.790 deg. F , 0.2542 psia
dewpoint 3	(59.590)	= 59.590 deg. F , 0.2524 psia
dewpoint 4	(60.380)	= 60.380 deg. F , 0.2596 psia
dewpoint 5	(59.410)	= 59.410 deg. F , 0.2508 psia
dewpoint 6	(55.760)	= 55.760 deg. F , 0.2199 psia
pressure 1	(41.6646)	= 41.6646 psia
pressure 2	(41.6665)	= 41.6665 psia

weighted averages, volume and air mass

temperature	=	80.18281 deg. F
pressure	=	41.66650 psia
vapor pressure	=	0.25006 psia
volume	=	2649000 cu. ft.
dry air mass	=	548538.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 57

time = 115 date = 221

sensor	raw data	value
temperature 1	(83.280)	= 83.280 deg. F
temperature 2	(83.250)	= 83.250 deg. F
temperature 3	(83.110)	= 83.110 deg. F
temperature 4	(83.060)	= 83.060 deg. F
temperature 5	(82.850)	= 82.850 deg. F
temperature 6	(82.850)	= 82.850 deg. F
temperature 7	(82.250)	= 82.250 deg. F
temperature 8	(82.350)	= 82.350 deg. F
temperature 9	(82.380)	= 82.380 deg. F
temperature 10	(81.950)	= 81.950 deg. F
temperature 11	(81.900)	= 81.900 deg. F
temperature 12	(81.740)	= 81.740 deg. F
temperature 13	(81.110)	= 81.110 deg. F
temperature 14	(80.250)	= 80.250 deg. F
temperature 15	(80.200)	= 80.200 deg. F
temperature 16	(79.070)	= 79.070 deg. F
temperature 17	(78.240)	= 78.240 deg. F
temperature 18	(77.400)	= 77.400 deg. F
temperature 19	(76.080)	= 76.080 deg. F
temperature 20	(74.950)	= 74.950 deg. F
temperature 21	(73.210)	= 73.210 deg. F
temperature 22	(73.350)	= 73.350 deg. F
temperature 23	(72.830)	= 72.830 deg. F
temperature 24	(77.620)	= 77.620 deg. F
dewpoint 1	(60.090)	= 60.090 deg. F , 0.2569 psia
dewpoint 2	(59.830)	= 59.830 deg. F , 0.2546 psia
dewpoint 3	(59.690)	= 59.690 deg. F , 0.2533 psia
dewpoint 4	(60.500)	= 60.500 deg. F , 0.2607 psia
dewpoint 5	(59.340)	= 59.340 deg. F , 0.2502 psia
dewpoint 6	(55.850)	= 55.850 deg. F , 0.2206 psia
pressure 1	(42.3375)	= 42.3375 psia
pressure 2	(42.3384)	= 42.3384 psia

weighted averages, volume and air mass

temperature	=	80.20248 deg. F
pressure	=	42.33840 psia
vapor pressure	=	0.25112 psia
volume	=	2649000 cu. ft.
dry air mass	=	557403.6 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 58

time = 130 date = 221

sensor		raw data		value	
temperature	1 (83.370)	=	83.370 deg. F		
temperature	2 (83.290)	=	83.290 deg. F		
temperature	3 (83.090)	=	83.090 deg. F		
temperature	4 (83.060)	=	83.060 deg. F		
temperature	5 (82.930)	=	82.930 deg. F		
temperature	6 (82.850)	=	82.850 deg. F		
temperature	7 (82.340)	=	82.340 deg. F		
temperature	8 (82.380)	=	82.380 deg. F		
temperature	9 (82.410)	=	82.410 deg. F		
temperature	10 (82.010)	=	82.010 deg. F		
temperature	11 (81.970)	=	81.970 deg. F		
temperature	12 (81.780)	=	81.780 deg. F		
temperature	13 (81.200)	=	81.200 deg. F		
temperature	14 (80.310)	=	80.310 deg. F		
temperature	15 (80.230)	=	80.230 deg. F		
temperature	16 (79.120)	=	79.120 deg. F		
temperature	17 (78.300)	=	78.300 deg. F		
temperature	18 (77.440)	=	77.440 deg. F		
temperature	19 (76.090)	=	76.090 deg. F		
temperature	20 (74.970)	=	74.970 deg. F		
temperature	21 (73.250)	=	73.250 deg. F		
temperature	22 (73.340)	=	73.340 deg. F		
temperature	23 (72.800)	=	72.800 deg. F		
temperature	24 (77.610)	=	77.610 deg. F		
dewpoint	1 (60.230)	=	60.230 deg. F	, 0.2582 psia	
dewpoint	2 (60.170)	=	60.170 deg. F	, 0.2577 psia	
dewpoint	3 (60.030)	=	60.030 deg. F	, 0.2564 psia	
dewpoint	4 (60.780)	=	60.780 deg. F	, 0.2633 psia	
dewpoint	5 (59.640)	=	59.640 deg. F	, 0.2528 psia	
dewpoint	6 (56.140)	=	56.140 deg. F	, 0.2230 psia	
pressure	1 (43.0137)	=	43.0137 psia		
pressure	2 (43.0143)	=	43.0143 psia		

weighted averages, volume and air mass

temperature	=	80.24039 deg. F
pressure	=	43.01430 psia
vapor pressure	=	0.25368 psia
volume	=	2649000 cu. ft.
dry air mass	=	566281.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 59

time = 145 date = 221

sensor	raw data	value
temperature 1	(83.240)	= 83.240 deg. F
temperature 2	(83.260)	= 83.260 deg. F
temperature 3	(83.020)	= 83.020 deg. F
temperature 4	(83.020)	= 83.020 deg. F
temperature 5	(82.890)	= 82.890 deg. F
temperature 6	(82.810)	= 82.810 deg. F
temperature 7	(82.260)	= 82.260 deg. F
temperature 8	(82.350)	= 82.350 deg. F
temperature 9	(82.330)	= 82.330 deg. F
temperature 10	(81.980)	= 81.980 deg. F
temperature 11	(81.870)	= 81.870 deg. F
temperature 12	(81.730)	= 81.730 deg. F
temperature 13	(81.120)	= 81.120 deg. F
temperature 14	(80.280)	= 80.280 deg. F
temperature 15	(80.200)	= 80.200 deg. F
temperature 16	(79.080)	= 79.080 deg. F
temperature 17	(78.290)	= 78.290 deg. F
temperature 18	(77.450)	= 77.450 deg. F
temperature 19	(76.130)	= 76.130 deg. F
temperature 20	(75.010)	= 75.010 deg. F
temperature 21	(73.230)	= 73.230 deg. F
temperature 22	(73.300)	= 73.300 deg. F
temperature 23	(72.750)	= 72.750 deg. F
temperature 24	(77.600)	= 77.600 deg. F
dewpoint 1	(60.480)	= 60.480 deg. F , 0.2605 psia
dewpoint 2	(60.420)	= 60.420 deg. F , 0.2600 psia
dewpoint 3	(60.090)	= 60.090 deg. F , 0.2569 psia
dewpoint 4	(60.910)	= 60.910 deg. F , 0.2645 psia
dewpoint 5	(59.830)	= 59.830 deg. F , 0.2546 psia
dewpoint 6	(56.330)	= 56.330 deg. F , 0.2245 psia
pressure 1	(43.6536)	= 43.6536 psia
pressure 2	(43.6536)	= 43.6536 psia

weighted averages, volume and air mass

temperature	=	80.19820 deg. F
pressure	=	43.65360 psia
vapor pressure	=	0.25526 psia
volume	=	2649000 cu. ft.
dry air mass	=	574771.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 60

time = 200 date = 221

sensor	raw data	value
temperature 1	(83.350) =	83.350 deg. F
temperature 2	(83.320) =	83.320 deg. F
temperature 3	(83.050) =	83.050 deg. F
temperature 4	(83.050) =	83.050 deg. F
temperature 5	(82.940) =	82.940 deg. F
temperature 6	(82.890) =	82.890 deg. F
temperature 7	(82.320) =	82.320 deg. F
temperature 8	(82.440) =	82.440 deg. F
temperature 9	(82.460) =	82.460 deg. F
temperature 10	(82.020) =	82.020 deg. F
temperature 11	(81.990) =	81.990 deg. F
temperature 12	(81.800) =	81.800 deg. F
temperature 13	(81.230) =	81.230 deg. F
temperature 14	(80.370) =	80.370 deg. F
temperature 15	(80.280) =	80.280 deg. F
temperature 16	(79.170) =	79.170 deg. F
temperature 17	(78.350) =	78.350 deg. F
temperature 18	(77.500) =	77.500 deg. F
temperature 19	(76.160) =	76.160 deg. F
temperature 20	(75.010) =	75.010 deg. F
temperature 21	(73.240) =	73.240 deg. F
temperature 22	(73.320) =	73.320 deg. F
temperature 23	(72.740) =	72.740 deg. F
temperature 24	(77.620) =	77.620 deg. F
dewpoint 1	(60.250) =	60.250 deg. F , 0.2584 psia
dewpoint 2	(60.690) =	60.690 deg. F , 0.2625 psia
dewpoint 3	(60.250) =	60.250 deg. F , 0.2584 psia
dewpoint 4	(61.040) =	61.040 deg. F , 0.2658 psia
dewpoint 5	(60.420) =	60.420 deg. F , 0.2600 psia
dewpoint 6	(56.580) =	56.580 deg. F , 0.2265 psia
pressure 1	(44.3164) =	44.3164 psia
pressure 2	(44.3173) =	44.3173 psia

weighted averages, volume and air mass

temperature	=	80.26103 deg. F
pressure	=	44.31730 psia
vapor pressure	=	0.25696 psia
volume	=	2649000 cu. ft.
dry air mass	=	583471.4 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 61

time = 215 date = 221

sensor	raw data	value
temperature 1 (83.160)	=	83.160 deg. F
temperature 2 (83.240)	=	83.240 deg. F
temperature 3 (83.000)	=	83.000 deg. F
temperature 4 (82.960)	=	82.960 deg. F
temperature 5 (82.840)	=	82.840 deg. F
temperature 6 (82.790)	=	82.790 deg. F
temperature 7 (82.200)	=	82.200 deg. F
temperature 8 (82.330)	=	82.330 deg. F
temperature 9 (82.340)	=	82.340 deg. F
temperature 10 (81.910)	=	81.910 deg. F
temperature 11 (81.860)	=	81.860 deg. F
temperature 12 (81.740)	=	81.740 deg. F
temperature 13 (81.160)	=	81.160 deg. F
temperature 14 (80.280)	=	80.280 deg. F
temperature 15 (80.200)	=	80.200 deg. F
temperature 16 (79.110)	=	79.110 deg. F
temperature 17 (78.330)	=	78.330 deg. F
temperature 18 (77.520)	=	77.520 deg. F
temperature 19 (76.190)	=	76.190 deg. F
temperature 20 (75.070)	=	75.070 deg. F
temperature 21 (73.290)	=	73.290 deg. F
temperature 22 (73.270)	=	73.270 deg. F
temperature 23 (72.680)	=	72.680 deg. F
temperature 24 (77.590)	=	77.590 deg. F
dewpoint 1 (60.660)	=	60.660 deg. F , 0.2622 psia
dewpoint 2 (60.830)	=	60.830 deg. F , 0.2638 psia
dewpoint 3 (60.380)	=	60.380 deg. F , 0.2596 psia
dewpoint 4 (61.200)	=	61.200 deg. F , 0.2673 psia
dewpoint 5 (60.680)	=	60.680 deg. F , 0.2624 psia
dewpoint 6 (56.990)	=	56.990 deg. F , 0.2299 psia
pressure 1 (44.9257)	=	44.9257 psia
pressure 2 (44.9252)	=	44.9252 psia

weighted averages, volume and air mass

temperature	=	80.19035 deg. F
pressure	=	44.92520 psia
vapor pressure	=	0.25909 psia
volume	=	2649000 cu. ft.
dry air mass	=	591570.8 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 62

time = 230 date = 221

sensor		raw data		value	
temperature	1 (	83.220)	=	83.220 deg. F	
temperature	2 (	83.220)	=	83.220 deg. F	
temperature	3 (	83.060)	=	83.060 deg. F	
temperature	4 (	83.010)	=	83.010 deg. F	
temperature	5 (	82.900)	=	82.900 deg. F	
temperature	6 (	82.830)	=	82.830 deg. F	
temperature	7 (	82.260)	=	82.260 deg. F	
temperature	8 (	82.370)	=	82.370 deg. F	
temperature	9 (	82.370)	=	82.370 deg. F	
temperature	10 (	81.990)	=	81.990 deg. F	
temperature	11 (	81.910)	=	81.910 deg. F	
temperature	12 (	81.760)	=	81.760 deg. F	
temperature	13 (	81.210)	=	81.210 deg. F	
temperature	14 (	80.370)	=	80.370 deg. F	
temperature	15 (	80.310)	=	80.310 deg. F	
temperature	16 (	79.190)	=	79.190 deg. F	
temperature	17 (	78.380)	=	78.380 deg. F	
temperature	18 (	77.550)	=	77.550 deg. F	
temperature	19 (	76.210)	=	76.210 deg. F	
temperature	20 (	75.030)	=	75.030 deg. F	
temperature	21 (	73.240)	=	73.240 deg. F	
temperature	22 (	73.290)	=	73.290 deg. F	
temperature	23 (	72.740)	=	72.740 deg. F	
temperature	24 (	77.640)	=	77.640 deg. F	
dewpoint	1 (	60.730)	=	60.730 deg. F	, 0.2628 psia
dewpoint	2 (	60.930)	=	60.930 deg. F	, 0.2647 psia
dewpoint	3 (	60.570)	=	60.570 deg. F	, 0.2614 psia
dewpoint	4 (	61.370)	=	61.370 deg. F	, 0.2689 psia
dewpoint	5 (	60.510)	=	60.510 deg. F	, 0.2608 psia
dewpoint	6 (	57.070)	=	57.070 deg. F	, 0.2306 psia
pressure	1 (	45.5887)	=	45.5887 psia	
pressure	2 (	45.5878)	=	45.5878 psia	

weighted averages, volume and air mass

temperature	=	80.23443 deg. F
pressure	=	45.58780 psia
vapor pressure	=	0.25986 psia
volume	=	2649000 cu. ft.
dry air mass	=	600287.2 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 63

time = 245 date = 221

sensor	raw data	value
temperature 1	(83.120)	= 83.120 deg. F
temperature 2	(83.150)	= 83.150 deg. F
temperature 3	(83.020)	= 83.020 deg. F
temperature 4	(82.920)	= 82.920 deg. F
temperature 5	(82.780)	= 82.780 deg. F
temperature 6	(82.860)	= 82.860 deg. F
temperature 7	(82.220)	= 82.220 deg. F
temperature 8	(82.330)	= 82.330 deg. F
temperature 9	(82.370)	= 82.370 deg. F
temperature 10	(81.960)	= 81.960 deg. F
temperature 11	(81.930)	= 81.930 deg. F
temperature 12	(81.770)	= 81.770 deg. F
temperature 13	(81.210)	= 81.210 deg. F
temperature 14	(80.340)	= 80.340 deg. F
temperature 15	(80.280)	= 80.280 deg. F
temperature 16	(79.160)	= 79.160 deg. F
temperature 17	(78.400)	= 78.400 deg. F
temperature 18	(77.530)	= 77.530 deg. F
temperature 19	(76.230)	= 76.230 deg. F
temperature 20	(75.100)	= 75.100 deg. F
temperature 21	(73.280)	= 73.280 deg. F
temperature 22	(73.260)	= 73.260 deg. F
temperature 23	(72.660)	= 72.660 deg. F
temperature 24	(77.610)	= 77.610 deg. F
dewpoint 1	(60.790)	= 60.790 deg. F , 0.2634 psia
dewpoint 2	(61.000)	= 61.000 deg. F , 0.2654 psia
dewpoint 3	(60.750)	= 60.750 deg. F , 0.2630 psia
dewpoint 4	(61.240)	= 61.240 deg. F , 0.2676 psia
dewpoint 5	(60.650)	= 60.650 deg. F , 0.2621 psia
dewpoint 6	(57.220)	= 57.220 deg. F , 0.2318 psia
pressure 1	(46.2025)	= 46.2025 psia
pressure 2	(46.2027)	= 46.2027 psia

weighted averages, volume and air mass

temperature	=	80.21022 deg. F
pressure	=	46.20270 psia
vapor pressure	=	0.26053 psia
volume	=	2649000 cu. ft.
dry air mass	=	608448.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 64

time = 300 date = 221

sensor	raw data	value
temperature 1	(82.990)	= 82.990 deg. F
temperature 2	(83.040)	= 83.040 deg. F
temperature 3	(82.820)	= 82.820 deg. F
temperature 4	(82.830)	= 82.830 deg. F
temperature 5	(82.650)	= 82.650 deg. F
temperature 6	(82.680)	= 82.680 deg. F
temperature 7	(82.150)	= 82.150 deg. F
temperature 8	(82.230)	= 82.230 deg. F
temperature 9	(82.280)	= 82.280 deg. F
temperature 10	(81.930)	= 81.930 deg. F
temperature 11	(81.820)	= 81.820 deg. F
temperature 12	(81.660)	= 81.660 deg. F
temperature 13	(81.130)	= 81.130 deg. F
temperature 14	(80.280)	= 80.280 deg. F
temperature 15	(80.200)	= 80.200 deg. F
temperature 16	(79.100)	= 79.100 deg. F
temperature 17	(78.360)	= 78.360 deg. F
temperature 18	(77.430)	= 77.430 deg. F
temperature 19	(76.260)	= 76.260 deg. F
temperature 20	(75.190)	= 75.190 deg. F
temperature 21	(73.220)	= 73.220 deg. F
temperature 22	(73.260)	= 73.260 deg. F
temperature 23	(72.570)	= 72.570 deg. F
temperature 24	(77.570)	= 77.570 deg. F
dewpoint 1	(60.860)	= 60.860 deg. F , 0.2641 psia
dewpoint 2	(61.220)	= 61.220 deg. F , 0.2675 psia
dewpoint 3	(60.930)	= 60.930 deg. F , 0.2647 psia
dewpoint 4	(61.620)	= 61.620 deg. F , 0.2713 psia
dewpoint 5	(60.600)	= 60.600 deg. F , 0.2616 psia
dewpoint 6	(57.510)	= 57.510 deg. F , 0.2343 psia
pressure 1	(46.7665)	= 46.7665 psia
pressure 2	(46.7662)	= 46.7662 psia

weighted averages, volume and air mass

temperature	=	80.12885 deg. F
pressure	=	46.76620 psia
vapor pressure	=	0.26225 psia
volume	=	2649000 cu. ft.
dry air mass	=	615981.9 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 65

time = 315 date = 221

sensor	raw data	value
temperature 1	(82.610) =	82.610 deg. F
temperature 2	(82.650) =	82.650 deg. F
temperature 3	(82.550) =	82.550 deg. F
temperature 4	(82.450) =	82.450 deg. F
temperature 5	(82.310) =	82.310 deg. F
temperature 6	(82.360) =	82.360 deg. F
temperature 7	(81.870) =	81.870 deg. F
temperature 8	(81.940) =	81.940 deg. F
temperature 9	(81.970) =	81.970 deg. F
temperature 10	(81.630) =	81.630 deg. F
temperature 11	(81.500) =	81.500 deg. F
temperature 12	(81.400) =	81.400 deg. F
temperature 13	(80.910) =	80.910 deg. F
temperature 14	(80.080) =	80.080 deg. F
temperature 15	(80.050) =	80.050 deg. F
temperature 16	(79.000) =	79.000 deg. F
temperature 17	(78.300) =	78.300 deg. F
temperature 18	(77.340) =	77.340 deg. F
temperature 19	(76.290) =	76.290 deg. F
temperature 20	(75.310) =	75.310 deg. F
temperature 21	(73.280) =	73.280 deg. F
temperature 22	(73.210) =	73.210 deg. F
temperature 23	(72.510) =	72.510 deg. F
temperature 24	(77.540) =	77.540 deg. F
dewpoint 1	(60.770) =	60.770 deg. F , 0.2632 psia
dewpoint 2	(61.240) =	61.240 deg. F , 0.2676 psia
dewpoint 3	(60.980) =	60.980 deg. F , 0.2652 psia
dewpoint 4	(61.710) =	61.710 deg. F , 0.2721 psia
dewpoint 5	(61.040) =	61.040 deg. F , 0.2658 psia
dewpoint 6	(57.680) =	57.680 deg. F , 0.2357 psia
pressure 1	(47.2517) =	47.2517 psia
pressure 2	(47.2507) =	47.2507 psia

weighted averages, volume and air mass

temperature	=	79.92043 deg. F
pressure	=	47.25070 psia
vapor pressure	=	0.26318 psia
volume	=	2649000 cu. ft.
dry air mass	=	622627.6 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 66

time = 330 date = 221

sensor	raw data	value
temperature 1	(82.460)	= 82.460 deg. F
temperature 2	(82.490)	= 82.490 deg. F
temperature 3	(82.350)	= 82.350 deg. F
temperature 4	(82.360)	= 82.360 deg. F
temperature 5	(82.170)	= 82.170 deg. F
temperature 6	(82.250)	= 82.250 deg. F
temperature 7	(81.790)	= 81.790 deg. F
temperature 8	(81.860)	= 81.860 deg. F
temperature 9	(81.860)	= 81.860 deg. F
temperature 10	(81.590)	= 81.590 deg. F
temperature 11	(81.440)	= 81.440 deg. F
temperature 12	(81.320)	= 81.320 deg. F
temperature 13	(80.880)	= 80.880 deg. F
temperature 14	(80.040)	= 80.040 deg. F
temperature 15	(80.050)	= 80.050 deg. F
temperature 16	(79.020)	= 79.020 deg. F
temperature 17	(78.330)	= 78.330 deg. F
temperature 18	(77.350)	= 77.350 deg. F
temperature 19	(76.310)	= 76.310 deg. F
temperature 20	(75.320)	= 75.320 deg. F
temperature 21	(73.210)	= 73.210 deg. F
temperature 22	(73.230)	= 73.230 deg. F
temperature 23	(72.530)	= 72.530 deg. F
temperature 24	(77.560)	= 77.560 deg. F
dewpoint 1	(61.110)	= 61.110 deg. F , 0.2664 psia
dewpoint 2	(61.360)	= 61.360 deg. F , 0.2688 psia
dewpoint 3	(61.100)	= 61.100 deg. F , 0.2663 psia
dewpoint 4	(61.520)	= 61.520 deg. F , 0.2703 psia
dewpoint 5	(61.080)	= 61.080 deg. F , 0.2661 psia
dewpoint 6	(58.020)	= 58.020 deg. F , 0.2386 psia
pressure 1	(47.7729)	= 47.7729 psia
pressure 2	(47.7725)	= 47.7725 psia

weighted averages, volume and air mass

temperature	=	79.86218 deg. F
pressure	=	47.77250 psia
vapor pressure	=	0.26421 psia
volume	=	2649000 cu. ft.
dry air mass	=	629596.2 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 67

time = 345 date = 221

sensor	raw data	value
temperature 1	(82.440) =	82.440 deg. F
temperature 2	(82.380) =	82.380 deg. F
temperature 3	(82.340) =	82.340 deg. F
temperature 4	(82.230) =	82.230 deg. F
temperature 5	(82.090) =	82.090 deg. F
temperature 6	(82.150) =	82.150 deg. F
temperature 7	(81.770) =	81.770 deg. F
temperature 8	(81.830) =	81.830 deg. F
temperature 9	(81.830) =	81.830 deg. F
temperature 10	(81.510) =	81.510 deg. F
temperature 11	(81.390) =	81.390 deg. F
temperature 12	(81.300) =	81.300 deg. F
temperature 13	(80.850) =	80.850 deg. F
temperature 14	(80.020) =	80.020 deg. F
temperature 15	(80.070) =	80.070 deg. F
temperature 16	(79.040) =	79.040 deg. F
temperature 17	(78.340) =	78.340 deg. F
temperature 18	(77.380) =	77.380 deg. F
temperature 19	(76.340) =	76.340 deg. F
temperature 20	(75.350) =	75.350 deg. F
temperature 21	(73.220) =	73.220 deg. F
temperature 22	(73.230) =	73.230 deg. F
temperature 23	(72.530) =	72.530 deg. F
temperature 24	(77.570) =	77.570 deg. F
dewpoint 1	(61.190) =	61.190 deg. F , 0.2672 psia
dewpoint 2	(61.420) =	61.420 deg. F , 0.2694 psia
dewpoint 3	(61.230) =	61.230 deg. F , 0.2676 psia
dewpoint 4	(61.800) =	61.800 deg. F , 0.2730 psia
dewpoint 5	(61.140) =	61.140 deg. F , 0.2667 psia
dewpoint 6	(58.030) =	58.030 deg. F , 0.2387 psia
pressure 1	(48.3024) =	48.3024 psia
pressure 2	(48.3028) =	48.3028 psia

weighted averages, volume and air mass

temperature	=	79.83431 deg. F
pressure	=	48.30280 psia
vapor pressure	=	0.26526 psia
volume	=	2649000 cu. ft.
dry air mass	=	636642.8 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 68

time = 400 date = 221

sensor	raw data	value
temperature 1	(82.430)	= 82.430 deg. F
temperature 2	(82.530)	= 82.530 deg. F
temperature 3	(82.350)	= 82.350 deg. F
temperature 4	(82.380)	= 82.380 deg. F
temperature 5	(82.250)	= 82.250 deg. F
temperature 6	(82.310)	= 82.310 deg. F
temperature 7	(81.930)	= 81.930 deg. F
temperature 8	(81.940)	= 81.940 deg. F
temperature 9	(81.970)	= 81.970 deg. F
temperature 10	(81.640)	= 81.640 deg. F
temperature 11	(81.480)	= 81.480 deg. F
temperature 12	(81.460)	= 81.460 deg. F
temperature 13	(80.960)	= 80.960 deg. F
temperature 14	(80.170)	= 80.170 deg. F
temperature 15	(80.220)	= 80.220 deg. F
temperature 16	(79.210)	= 79.210 deg. F
temperature 17	(78.450)	= 78.450 deg. F
temperature 18	(77.580)	= 77.580 deg. F
temperature 19	(76.370)	= 76.370 deg. F
temperature 20	(75.230)	= 75.230 deg. F
temperature 21	(73.350)	= 73.350 deg. F
temperature 22	(73.270)	= 73.270 deg. F
temperature 23	(72.680)	= 72.680 deg. F
temperature 24	(77.670)	= 77.670 deg. F
dewpoint 1	(61.410)	= 61.410 deg. F , 0.2693 psia
dewpoint 2	(61.490)	= 61.490 deg. F , 0.2700 psia
dewpoint 3	(61.430)	= 61.430 deg. F , 0.2695 psia
dewpoint 4	(62.040)	= 62.040 deg. F , 0.2753 psia
dewpoint 5	(61.720)	= 61.720 deg. F , 0.2722 psia
dewpoint 6	(58.440)	= 58.440 deg. F , 0.2422 psia
pressure 1	(48.9376)	= 48.9376 psia
pressure 2	(48.9386)	= 48.9386 psia

weighted averages, volume and air mass

temperature	=	79.94923 deg. F
pressure	=	48.93860 psia
vapor pressure	=	0.26777 psia
volume	=	2649000 cu. ft.
dry air mass	=	644898.5 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 69

time = 415 date = 221

sensor		raw data		value	
temperature	1 (	82.860	) =	82.860 deg. F	
temperature	2 (	82.900	) =	82.900 deg. F	
temperature	3 (	82.770	) =	82.770 deg. F	
temperature	4 (	82.710	) =	82.710 deg. F	
temperature	5 (	82.490	) =	82.490 deg. F	
temperature	6 (	82.650	) =	82.650 deg. F	
temperature	7 (	82.170	) =	82.170 deg. F	
temperature	8 (	82.230	) =	82.230 deg. F	
temperature	9 (	82.210	) =	82.210 deg. F	
temperature	10 (	81.880	) =	81.880 deg. F	
temperature	11 (	81.780	) =	81.780 deg. F	
temperature	12 (	81.720	) =	81.720 deg. F	
temperature	13 (	81.230	) =	81.230 deg. F	
temperature	14 (	80.380	) =	80.380 deg. F	
temperature	15 (	80.370	) =	80.370 deg. F	
temperature	16 (	79.330	) =	79.330 deg. F	
temperature	17 (	78.540	) =	78.540 deg. F	
temperature	18 (	77.670	) =	77.670 deg. F	
temperature	19 (	76.370	) =	76.370 deg. F	
temperature	20 (	75.200	) =	75.200 deg. F	
temperature	21 (	73.380	) =	73.380 deg. F	
temperature	22 (	73.310	) =	73.310 deg. F	
temperature	23 (	72.670	) =	72.670 deg. F	
temperature	24 (	77.690	) =	77.690 deg. F	
dewpoint	1 (	61.710	) =	61.710 deg. F	0.2721 psia
dewpoint	2 (	61.900	) =	61.900 deg. F	0.2740 psia
dewpoint	3 (	61.540	) =	61.540 deg. F	0.2705 psia
dewpoint	4 (	62.260	) =	62.260 deg. F	0.2775 psia
dewpoint	5 (	61.900	) =	61.900 deg. F	0.2740 psia
dewpoint	6 (	58.600	) =	58.600 deg. F	0.2436 psia
pressure	1 (	49.6408	) =	49.6408 psia	
pressure	2 (	49.6417	) =	49.6417 psia	

weighted averages, volume and air mass

temperature	=	80.15836 deg. F
pressure	=	49.64170 psia
vapor pressure	=	0.27001 psia
volume	=	2649000 cu. ft.
dry air mass	=	653931.6 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 70

time = 430 date = 221

sensor	raw data	value
temperature 1	(83.080) =	83.080 deg. F
temperature 2	(83.190) =	83.190 deg. F
temperature 3	(83.000) =	83.000 deg. F
temperature 4	(82.860) =	82.860 deg. F
temperature 5	(82.810) =	82.810 deg. F
temperature 6	(82.860) =	82.860 deg. F
temperature 7	(82.350) =	82.350 deg. F
temperature 8	(82.440) =	82.440 deg. F
temperature 9	(82.450) =	82.450 deg. F
temperature 10	(82.030) =	82.030 deg. F
temperature 11	(81.970) =	81.970 deg. F
temperature 12	(81.860) =	81.860 deg. F
temperature 13	(81.350) =	81.350 deg. F
temperature 14	(80.530) =	80.530 deg. F
temperature 15	(80.440) =	80.440 deg. F
temperature 16	(79.380) =	79.380 deg. F
temperature 17	(78.580) =	78.580 deg. F
temperature 18	(77.700) =	77.700 deg. F
temperature 19	(76.380) =	76.380 deg. F
temperature 20	(75.200) =	75.200 deg. F
temperature 21	(73.400) =	73.400 deg. F
temperature 22	(73.290) =	73.290 deg. F
temperature 23	(72.670) =	72.670 deg. F
temperature 24	(77.690) =	77.690 deg. F
dewpoint 1	(61.850) =	61.850 deg. F , 0.2735 psia
dewpoint 2	(62.150) =	62.150 deg. F , 0.2764 psia
dewpoint 3	(61.750) =	61.750 deg. F , 0.2725 psia
dewpoint 4	(62.450) =	62.450 deg. F , 0.2793 psia
dewpoint 5	(61.990) =	61.990 deg. F , 0.2748 psia
dewpoint 6	(58.540) =	58.540 deg. F , 0.2431 psia
pressure 1	(50.3314) =	50.3314 psia
pressure 2	(50.3321) =	50.3321 psia

weighted averages, volume and air mass

temperature	=	80.29414 deg. F
pressure	=	50.33210 psia
vapor pressure	=	0.27150 psia
volume	=	2649000 cu. ft.
dry air mass	=	662889.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 71

time = 445 date = 221

sensor	raw data	value
temperature 1	(83.220)	= 83.220 deg. F
temperature 2	(83.230)	= 83.230 deg. F
temperature 3	(83.120)	= 83.120 deg. F
temperature 4	(83.050)	= 83.050 deg. F
temperature 5	(82.930)	= 82.930 deg. F
temperature 6	(82.980)	= 82.980 deg. F
temperature 7	(82.470)	= 82.470 deg. F
temperature 8	(82.520)	= 82.520 deg. F
temperature 9	(82.590)	= 82.590 deg. F
temperature 10	(82.180)	= 82.180 deg. F
temperature 11	(82.100)	= 82.100 deg. F
temperature 12	(81.980)	= 81.980 deg. F
temperature 13	(81.430)	= 81.430 deg. F
temperature 14	(80.620)	= 80.620 deg. F
temperature 15	(80.500)	= 80.500 deg. F
temperature 16	(79.430)	= 79.430 deg. F
temperature 17	(78.600)	= 78.600 deg. F
temperature 18	(77.720)	= 77.720 deg. F
temperature 19	(76.400)	= 76.400 deg. F
temperature 20	(75.180)	= 75.180 deg. F
temperature 21	(73.370)	= 73.370 deg. F
temperature 22	(73.270)	= 73.270 deg. F
temperature 23	(72.670)	= 72.670 deg. F
temperature 24	(77.700)	= 77.700 deg. F
dewpoint 1	(61.880)	= 61.880 deg. F , 0.2738 psia
dewpoint 2	(62.410)	= 62.410 deg. F , 0.2789 psia
dewpoint 3	(61.940)	= 61.940 deg. F , 0.2744 psia
dewpoint 4	(62.670)	= 62.670 deg. F , 0.2815 psia
dewpoint 5	(62.110)	= 62.110 deg. F , 0.2760 psia
dewpoint 6	(58.640)	= 58.640 deg. F , 0.2440 psia
pressure 1	(51.0171)	= 51.0171 psia
pressure 2	(51.0185)	= 51.0185 psia

weighted averages, volume and air mass

temperature	=	80.37473 deg. F
pressure	=	51.01850 psia
vapor pressure	=	0.27307 psia
volume	=	2649000 cu. ft.
dry air mass	=	671857.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 72

time = 500 date = 221

sensor		raw data		value
temperature	1 (	83.340)	=	83.340 deg. F
temperature	2 (	83.390)	=	83.390 deg. F
temperature	3 (	83.180)	=	83.180 deg. F
temperature	4 (	83.230)	=	83.230 deg. F
temperature	5 (	83.030)	=	83.030 deg. F
temperature	6 (	83.080)	=	83.080 deg. F
temperature	7 (	82.500)	=	82.500 deg. F
temperature	8 (	82.640)	=	82.640 deg. F
temperature	9 (	82.660)	=	82.660 deg. F
temperature	10 (	82.290)	=	82.290 deg. F
temperature	11 (	82.140)	=	82.140 deg. F
temperature	12 (	82.050)	=	82.050 deg. F
temperature	13 (	81.510)	=	81.510 deg. F
temperature	14 (	80.680)	=	80.680 deg. F
temperature	15 (	80.580)	=	80.580 deg. F
temperature	16 (	79.450)	=	79.450 deg. F
temperature	17 (	78.640)	=	78.640 deg. F
temperature	18 (	77.750)	=	77.750 deg. F
temperature	19 (	76.410)	=	76.410 deg. F
temperature	20 (	75.220)	=	75.220 deg. F
temperature	21 (	73.410)	=	73.410 deg. F
temperature	22 (	73.280)	=	73.280 deg. F
temperature	23 (	72.670)	=	72.670 deg. F
temperature	24 (	77.710)	=	77.710 deg. F
dewpoint	1 (	62.330)	=	62.330 deg. F , 0.2782 psia
dewpoint	2 (	62.620)	=	62.620 deg. F , 0.2810 psia
dewpoint	3 (	61.970)	=	61.970 deg. F , 0.2746 psia
dewpoint	4 (	62.810)	=	62.810 deg. F , 0.2829 psia
dewpoint	5 (	62.390)	=	62.390 deg. F , 0.2787 psia
dewpoint	6 (	58.870)	=	58.870 deg. F , 0.2460 psia
pressure	1 (	51.7036)	=	51.7036 psia
pressure	2 (	51.7057)	=	51.7057 psia

weighted averages, volume and air mass

temperature	=	80.44386 deg. F
pressure	=	51.70570 psia
vapor pressure	=	0.27513 psia
volume	=	2649000 cu. ft.
dry air mass	=	680841.6 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 73

time = 515 date = 221

sensor	raw data	value
temperature 1	(83.460) =	83.460 deg. F
temperature 2	(83.530) =	83.530 deg. F
temperature 3	(83.270) =	83.270 deg. F
temperature 4	(83.280) =	83.280 deg. F
temperature 5	(83.130) =	83.130 deg. F
temperature 6	(83.170) =	83.170 deg. F
temperature 7	(82.580) =	82.580 deg. F
temperature 8	(82.660) =	82.660 deg. F
temperature 9	(82.780) =	82.780 deg. F
temperature 10	(82.350) =	82.350 deg. F
temperature 11	(82.270) =	82.270 deg. F
temperature 12	(82.150) =	82.150 deg. F
temperature 13	(81.580) =	81.580 deg. F
temperature 14	(80.760) =	80.760 deg. F
temperature 15	(80.600) =	80.600 deg. F
temperature 16	(79.490) =	79.490 deg. F
temperature 17	(78.680) =	78.680 deg. F
temperature 18	(77.750) =	77.750 deg. F
temperature 19	(76.430) =	76.430 deg. F
temperature 20	(75.190) =	75.190 deg. F
temperature 21	(73.400) =	73.400 deg. F
temperature 22	(73.270) =	73.270 deg. F
temperature 23	(72.650) =	72.650 deg. F
temperature 24	(77.730) =	77.730 deg. F
dewpoint 1	(62.550) =	62.550 deg. F , 0.2803 psia
dewpoint 2	(62.660) =	62.660 deg. F , 0.2814 psia
dewpoint 3	(62.070) =	62.070 deg. F , 0.2756 psia
dewpoint 4	(62.990) =	62.990 deg. F , 0.2847 psia
dewpoint 5	(62.470) =	62.470 deg. F , 0.2795 psia
dewpoint 6	(58.910) =	58.910 deg. F , 0.2463 psia
pressure 1	(52.3890) =	52.3890 psia
pressure 2	(52.3918) =	52.3918 psia

weighted averages, volume and air mass

temperature	=	80.50355 deg. F
pressure	=	52.39180 psia
vapor pressure	=	0.27623 psia
volume	=	2649000 cu. ft.
dry air mass	=	689833.4 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 74

time = 530 date = 221

sensor	raw data	value
temperature 1	(83.480) =	83.480 deg. F
temperature 2	(83.530) =	83.530 deg. F
temperature 3	(83.350) =	83.350 deg. F
temperature 4	(83.320) =	83.320 deg. F
temperature 5	(83.170) =	83.170 deg. F
temperature 6	(83.190) =	83.190 deg. F
temperature 7	(82.650) =	82.650 deg. F
temperature 8	(82.730) =	82.730 deg. F
temperature 9	(82.820) =	82.820 deg. F
temperature 10	(82.410) =	82.410 deg. F
temperature 11	(82.310) =	82.310 deg. F
temperature 12	(82.170) =	82.170 deg. F
temperature 13	(81.640) =	81.640 deg. F
temperature 14	(80.810) =	80.810 deg. F
temperature 15	(80.620) =	80.620 deg. F
temperature 16	(79.520) =	79.520 deg. F
temperature 17	(78.680) =	78.680 deg. F
temperature 18	(77.760) =	77.760 deg. F
temperature 19	(76.460) =	76.460 deg. F
temperature 20	(75.230) =	75.230 deg. F
temperature 21	(73.400) =	73.400 deg. F
temperature 22	(73.270) =	73.270 deg. F
temperature 23	(72.670) =	72.670 deg. F
temperature 24	(77.770) =	77.770 deg. F
dewpoint 1	(62.720) =	62.720 deg. F , 0.2820 psia
dewpoint 2	(63.000) =	63.000 deg. F , 0.2848 psia
dewpoint 3	(62.220) =	62.220 deg. F , 0.2771 psia
dewpoint 4	(63.130) =	63.130 deg. F , 0.2861 psia
dewpoint 5	(62.550) =	62.550 deg. F , 0.2803 psia
dewpoint 6	(59.050) =	59.050 deg. F , 0.2476 psia
pressure 1	(53.0752) =	53.0752 psia
pressure 2	(53.0772) =	53.0772 psia

weighted averages, volume and air mass

temperature	=	80.53896 deg. F
pressure	=	53.07720 psia
vapor pressure	=	0.27796 psia
volume	=	2649000 cu. ft.
dry air mass	=	698837.1 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 75

time = 545 date = 221

sensor		raw data		value
temperature	1 (	83.580)	=	83.580 deg. F
temperature	2 (	83.580)	=	83.580 deg. F
temperature	3 (	83.410)	=	83.410 deg. F
temperature	4 (	83.300)	=	83.300 deg. F
temperature	5 (	83.250)	=	83.250 deg. F
temperature	6 (	83.280)	=	83.280 deg. F
temperature	7 (	82.710)	=	82.710 deg. F
temperature	8 (	82.820)	=	82.820 deg. F
temperature	9 (	82.860)	=	82.860 deg. F
temperature	10 (	82.500)	=	82.500 deg. F
temperature	11 (	82.360)	=	82.360 deg. F
temperature	12 (	82.250)	=	82.250 deg. F
temperature	13 (	81.660)	=	81.660 deg. F
temperature	14 (	80.850)	=	80.850 deg. F
temperature	15 (	80.670)	=	80.670 deg. F
temperature	16 (	79.560)	=	79.560 deg. F
temperature	17 (	78.730)	=	78.730 deg. F
temperature	18 (	77.780)	=	77.780 deg. F
temperature	19 (	76.480)	=	76.480 deg. F
temperature	20 (	75.210)	=	75.210 deg. F
temperature	21 (	73.360)	=	73.360 deg. F
temperature	22 (	73.260)	=	73.260 deg. F
temperature	23 (	72.630)	=	72.630 deg. F
temperature	24 (	77.760)	=	77.760 deg. F
dewpoint	1 (	62.830)	=	62.830 deg. F , 0.2831 psia
dewpoint	2 (	63.130)	=	63.130 deg. F , 0.2861 psia
dewpoint	3 (	62.480)	=	62.480 deg. F , 0.2796 psia
dewpoint	4 (	63.310)	=	63.310 deg. F , 0.2879 psia
dewpoint	5 (	62.570)	=	62.570 deg. F , 0.2805 psia
dewpoint	6 (	59.210)	=	59.210 deg. F , 0.2490 psia
pressure	1 (	53.7611)	=	53.7611 psia
pressure	2 (	53.7614)	=	53.7614 psia

weighted averages, volume and air mass

temperature	=	80.57998 deg. F
pressure	=	53.76140 psia
vapor pressure	=	0.27942 psia
volume	=	2649000 cu. ft.
dry air mass	=	707819.9 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 76

time = 600 date = 221

sensor	raw data	value
temperature 1	(83.610)	= 83.610 deg. F
temperature 2	(83.630)	= 83.630 deg. F
temperature 3	(83.400)	= 83.400 deg. F
temperature 4	(83.420)	= 83.420 deg. F
temperature 5	(83.230)	= 83.230 deg. F
temperature 6	(83.330)	= 83.330 deg. F
temperature 7	(82.770)	= 82.770 deg. F
temperature 8	(82.830)	= 82.830 deg. F
temperature 9	(82.910)	= 82.910 deg. F
temperature 10	(82.500)	= 82.500 deg. F
temperature 11	(82.370)	= 82.370 deg. F
temperature 12	(82.280)	= 82.280 deg. F
temperature 13	(81.730)	= 81.730 deg. F
temperature 14	(80.890)	= 80.890 deg. F
temperature 15	(80.700)	= 80.700 deg. F
temperature 16	(79.590)	= 79.590 deg. F
temperature 17	(78.740)	= 78.740 deg. F
temperature 18	(77.800)	= 77.800 deg. F
temperature 19	(76.490)	= 76.490 deg. F
temperature 20	(75.260)	= 75.260 deg. F
temperature 21	(73.350)	= 73.350 deg. F
temperature 22	(73.260)	= 73.260 deg. F
temperature 23	(72.640)	= 72.640 deg. F
temperature 24	(77.780)	= 77.780 deg. F
dewpoint 1	(63.050)	= 63.050 deg. F , 0.2853 psia
dewpoint 2	(63.280)	= 63.280 deg. F , 0.2876 psia
dewpoint 3	(62.850)	= 62.850 deg. F , 0.2833 psia
dewpoint 4	(63.370)	= 63.370 deg. F , 0.2885 psia
dewpoint 5	(62.820)	= 62.820 deg. F , 0.2830 psia
dewpoint 6	(59.300)	= 59.300 deg. F , 0.2498 psia
pressure 1	(54.4434)	= 54.4434 psia
pressure 2	(54.4434)	= 54.4434 psia

weighted averages, volume and air mass

temperature	=	80.60871 deg. F
pressure	=	54.44340 psia
vapor pressure	=	0.28136 psia
volume	=	2649000 cu. ft.
dry air mass	=	716782.1 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 77

time = 615 date = 221

sensor	raw data	value
temperature 1	(83.550)	= 83.550 deg. F
temperature 2	(83.530)	= 83.530 deg. F
temperature 3	(83.350)	= 83.350 deg. F
temperature 4	(83.320)	= 83.320 deg. F
temperature 5	(83.180)	= 83.180 deg. F
temperature 6	(83.250)	= 83.250 deg. F
temperature 7	(82.670)	= 82.670 deg. F
temperature 8	(82.770)	= 82.770 deg. F
temperature 9	(82.830)	= 82.830 deg. F
temperature 10	(82.470)	= 82.470 deg. F
temperature 11	(82.400)	= 82.400 deg. F
temperature 12	(82.240)	= 82.240 deg. F
temperature 13	(81.660)	= 81.660 deg. F
temperature 14	(80.870)	= 80.870 deg. F
temperature 15	(80.660)	= 80.660 deg. F
temperature 16	(79.530)	= 79.530 deg. F
temperature 17	(78.730)	= 78.730 deg. F
temperature 18	(77.740)	= 77.740 deg. F
temperature 19	(76.510)	= 76.510 deg. F
temperature 20	(75.390)	= 75.390 deg. F
temperature 21	(73.190)	= 73.190 deg. F
temperature 22	(73.240)	= 73.240 deg. F
temperature 23	(72.550)	= 72.550 deg. F
temperature 24	(77.760)	= 77.760 deg. F
dewpoint 1	(63.020)	= 63.020 deg. F , 0.2850 psia
dewpoint 2	(63.510)	= 63.510 deg. F , 0.2899 psia
dewpoint 3	(62.940)	= 62.940 deg. F , 0.2842 psia
dewpoint 4	(63.520)	= 63.520 deg. F , 0.2900 psia
dewpoint 5	(63.010)	= 63.010 deg. F , 0.2849 psia
dewpoint 6	(59.500)	= 59.500 deg. F , 0.2516 psia
pressure 1	(55.0670)	= 55.0670 psia
pressure 2	(55.0681)	= 55.0681 psia

weighted averages, volume and air mass

temperature	=	80.56004 deg. F
pressure	=	55.06810 psia
vapor pressure	=	0.28271 psia
volume	=	2649000 cu. ft.
dry air mass	=	725096.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 78

time = 630 date = 221

sensor	raw data	value
temperature 1	(83.550) =	83.550 deg. F
temperature 2	(83.540) =	83.540 deg. F
temperature 3	(83.310) =	83.310 deg. F
temperature 4	(83.370) =	83.370 deg. F
temperature 5	(83.180) =	83.180 deg. F
temperature 6	(83.310) =	83.310 deg. F
temperature 7	(82.780) =	82.780 deg. F
temperature 8	(82.830) =	82.830 deg. F
temperature 9	(82.920) =	82.920 deg. F
temperature 10	(82.540) =	82.540 deg. F
temperature 11	(82.390) =	82.390 deg. F
temperature 12	(82.310) =	82.310 deg. F
temperature 13	(81.720) =	81.720 deg. F
temperature 14	(80.940) =	80.940 deg. F
temperature 15	(80.760) =	80.760 deg. F
temperature 16	(79.620) =	79.620 deg. F
temperature 17	(78.790) =	78.790 deg. F
temperature 18	(77.810) =	77.810 deg. F
temperature 19	(76.530) =	76.530 deg. F
temperature 20	(75.290) =	75.290 deg. F
temperature 21	(73.350) =	73.350 deg. F
temperature 22	(73.260) =	73.260 deg. F
temperature 23	(72.620) =	72.620 deg. F
temperature 24	(77.810) =	77.810 deg. F
dewpoint 1	(63.440) =	63.440 deg. F , 0.2892 psia
dewpoint 2	(63.670) =	63.670 deg. F , 0.2916 psia
dewpoint 3	(63.280) =	63.280 deg. F , 0.2876 psia
dewpoint 4	(63.690) =	63.690 deg. F , 0.2918 psia
dewpoint 5	(63.060) =	63.060 deg. F , 0.2854 psia
dewpoint 6	(59.740) =	59.740 deg. F , 0.2538 psia
pressure 1	(55.7495) =	55.7495 psia
pressure 2	(55.7508) =	55.7508 psia

weighted averages, volume and air mass

temperature	=	80.60929 deg. F
pressure	=	55.75080 psia
vapor pressure	=	0.28503 psia
volume	=	2649000 cu. ft.
dry air mass	=	734035.0 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 79.

time = 645 date = 221

sensor	raw data	value
temperature 1	(83.570) =	83.570 deg. F
temperature 2	(83.630) =	83.630 deg. F
temperature 3	(83.400) =	83.400 deg. F
temperature 4	(83.340) =	83.340 deg. F
temperature 5	(83.310) =	83.310 deg. F
temperature 6	(83.300) =	83.300 deg. F
temperature 7	(82.830) =	82.830 deg. F
temperature 8	(82.890) =	82.890 deg. F
temperature 9	(82.910) =	82.910 deg. F
temperature 10	(82.550) =	82.550 deg. F
temperature 11	(82.410) =	82.410 deg. F
temperature 12	(82.350) =	82.350 deg. F
temperature 13	(81.760) =	81.760 deg. F
temperature 14	(80.990) =	80.990 deg. F
temperature 15	(80.780) =	80.780 deg. F
temperature 16	(79.640) =	79.640 deg. F
temperature 17	(78.800) =	78.800 deg. F
temperature 18	(77.800) =	77.800 deg. F
temperature 19	(76.550) =	76.550 deg. F
temperature 20	(75.430) =	75.430 deg. F
temperature 21	(73.230) =	73.230 deg. F
temperature 22	(73.270) =	73.270 deg. F
temperature 23	(72.610) =	72.610 deg. F
temperature 24	(77.810) =	77.810 deg. F
dewpoint 1	(63.340) =	63.340 deg. F , 0.2882 psia
dewpoint 2	(63.700) =	63.700 deg. F , 0.2919 psia
dewpoint 3	(63.440) =	63.440 deg. F , 0.2892 psia
dewpoint 4	(63.820) =	63.820 deg. F , 0.2931 psia
dewpoint 5	(62.920) =	62.920 deg. F , 0.2840 psia
dewpoint 6	(59.840) =	59.840 deg. F , 0.2547 psia
pressure 1	(56.4069) =	56.4069 psia
pressure 2	(56.4088) =	56.4088 psia

weighted averages, volume and air mass

temperature	=	80.63725 deg. F
pressure	=	56.40880 psia
vapor pressure	=	0.28539 psia
volume	=	2649000 cu. ft.
dry air mass	=	742699.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 80

time = 700 date = 221

sensor	raw data	value
temperature 1	(83.520) =	83.520 deg. F
temperature 2	(83.590) =	83.590 deg. F
temperature 3	(83.400) =	83.400 deg. F
temperature 4	(83.420) =	83.420 deg. F
temperature 5	(83.300) =	83.300 deg. F
temperature 6	(83.310) =	83.310 deg. F
temperature 7	(82.790) =	82.790 deg. F
temperature 8	(82.890) =	82.890 deg. F
temperature 9	(82.970) =	82.970 deg. F
temperature 10	(82.570) =	82.570 deg. F
temperature 11	(82.440) =	82.440 deg. F
temperature 12	(82.380) =	82.380 deg. F
temperature 13	(81.800) =	81.800 deg. F
temperature 14	(81.000) =	81.000 deg. F
temperature 15	(80.800) =	80.800 deg. F
temperature 16	(79.660) =	79.660 deg. F
temperature 17	(78.820) =	78.820 deg. F
temperature 18	(77.850) =	77.850 deg. F
temperature 19	(76.570) =	76.570 deg. F
temperature 20	(75.380) =	75.380 deg. F
temperature 21	(73.270) =	73.270 deg. F
temperature 22	(73.250) =	73.250 deg. F
temperature 23	(72.610) =	72.610 deg. F
temperature 24	(77.840) =	77.840 deg. F
dewpoint 1	(63.620) =	63.620 deg. F , 0.2911 psia
dewpoint 2	(63.980) =	63.980 deg. F , 0.2948 psia
dewpoint 3	(63.490) =	63.490 deg. F , 0.2897 psia
dewpoint 4	(63.960) =	63.960 deg. F , 0.2946 psia
dewpoint 5	(63.200) =	63.200 deg. F , 0.2868 psia
dewpoint 6	(59.950) =	59.950 deg. F , 0.2557 psia
pressure 1	(57.0767) =	57.0767 psia
pressure 2	(57.0788) =	57.0788 psia

weighted averages, volume and air mass

temperature	=	80.64974 deg. F
pressure	=	57.07880 psia
vapor pressure	=	0.28730 psia
volume	=	2649000 cu. ft.
dry air mass	=	751523.4 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 81

time = 715 date = 221

sensor		raw data	=	value	
temperature	1	(83.620)	=	83.620	deg. F
temperature	2	(83.640)	=	83.640	deg. F
temperature	3	(83.520)	=	83.520	deg. F
temperature	4	(83.440)	=	83.440	deg. F
temperature	5	(83.300)	=	83.300	deg. F
temperature	6	(83.400)	=	83.400	deg. F
temperature	7	(82.930)	=	82.930	deg. F
temperature	8	(82.920)	=	82.920	deg. F
temperature	9	(83.000)	=	83.000	deg. F
temperature	10	(82.710)	=	82.710	deg. F
temperature	11	(82.520)	=	82.520	deg. F
temperature	12	(82.430)	=	82.430	deg. F
temperature	13	(81.870)	=	81.870	deg. F
temperature	14	(81.080)	=	81.080	deg. F
temperature	15	(80.860)	=	80.860	deg. F
temperature	16	(79.710)	=	79.710	deg. F
temperature	17	(78.870)	=	78.870	deg. F
temperature	18	(77.860)	=	77.860	deg. F
temperature	19	(76.580)	=	76.580	deg. F
temperature	20	(75.420)	=	75.420	deg. F
temperature	21	(73.230)	=	73.230	deg. F
temperature	22	(73.250)	=	73.250	deg. F
temperature	23	(72.610)	=	72.610	deg. F
temperature	24	(77.840)	=	77.840	deg. F
dewpoint	1	(63.930)	=	63.930	deg. F , 0.2942 psia
dewpoint	2	(64.210)	=	64.210	deg. F , 0.2971 psia
dewpoint	3	(63.660)	=	63.660	deg. F , 0.2915 psia
dewpoint	4	(64.030)	=	64.030	deg. F , 0.2953 psia
dewpoint	5	(63.400)	=	63.400	deg. F , 0.2888 psia
dewpoint	6	(60.150)	=	60.150	deg. F , 0.2575 psia
pressure	1	(57.7587)	=	57.7587	psia
pressure	2	(57.7613)	=	57.7613	psia

weighted averages, volume and air mass

temperature	=	80.70303	deg. F
pressure	=	57.76130	psia
vapor pressure	=	0.28926	psia
volume	=	2649000	cu. ft.
dry air mass	=	760454.0	lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 82

time = 730 date = 221

sensor		raw data		value	
temperature	1 (	83.560	) =	83.560	deg. F
temperature	2 (	83.670	) =	83.670	deg. F
temperature	3 (	83.510	) =	83.510	deg. F
temperature	4 (	83.460	) =	83.460	deg. F
temperature	5 (	83.320	) =	83.320	deg. F
temperature	6 (	83.420	) =	83.420	deg. F
temperature	7 (	82.880	) =	82.880	deg. F
temperature	8 (	82.960	) =	82.960	deg. F
temperature	9 (	82.980	) =	82.980	deg. F
temperature	10 (	82.720	) =	82.720	deg. F
temperature	11 (	82.520	) =	82.520	deg. F
temperature	12 (	82.430	) =	82.430	deg. F
temperature	13 (	81.850	) =	81.850	deg. F
temperature	14 (	81.080	) =	81.080	deg. F
temperature	15 (	80.870	) =	80.870	deg. F
temperature	16 (	79.720	) =	79.720	deg. F
temperature	17 (	78.870	) =	78.870	deg. F
temperature	18 (	77.840	) =	77.840	deg. F
temperature	19 (	76.610	) =	76.610	deg. F
temperature	20 (	75.520	) =	75.520	deg. F
temperature	21 (	73.130	) =	73.130	deg. F
temperature	22 (	73.240	) =	73.240	deg. F
temperature	23 (	72.560	) =	72.560	deg. F
temperature	24 (	77.840	) =	77.840	deg. F
dewpoint	1 (	63.920	) =	63.920	deg. F , 0.2941 psia
dewpoint	2 (	64.280	) =	64.280	deg. F , 0.2979 psia
dewpoint	3 (	63.710	) =	63.710	deg. F , 0.2920 psia
dewpoint	4 (	64.190	) =	64.190	deg. F , 0.2969 psia
dewpoint	5 (	63.480	) =	63.480	deg. F , 0.2896 psia
dewpoint	6 (	60.340	) =	60.340	deg. F , 0.2592 psia
pressure	1 (	58.4065	) =	58.4065	psia
pressure	2 (	58.4073	) =	58.4073	psia

weighted averages, volume and air mass

temperature	=	80.70163	deg. F
pressure	=	58.40730	psia
vapor pressure	=	0.29011	psia
volume	=	2649000	cu. ft.
dry air mass	=	768992.4	lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 83

time = 745 date = 221

sensor	raw data	value
temperature 1	(83.670) =	83.670 deg. F
temperature 2	(83.690) =	83.690 deg. F
temperature 3	(83.580) =	83.580 deg. F
temperature 4	(83.460) =	83.460 deg. F
temperature 5	(83.340) =	83.340 deg. F
temperature 6	(83.450) =	83.450 deg. F
temperature 7	(82.970) =	82.970 deg. F
temperature 8	(82.980) =	82.980 deg. F
temperature 9	(83.040) =	83.040 deg. F
temperature 10	(82.730) =	82.730 deg. F
temperature 11	(82.570) =	82.570 deg. F
temperature 12	(82.480) =	82.480 deg. F
temperature 13	(81.910) =	81.910 deg. F
temperature 14	(81.110) =	81.110 deg. F
temperature 15	(80.920) =	80.920 deg. F
temperature 16	(79.770) =	79.770 deg. F
temperature 17	(78.900) =	78.900 deg. F
temperature 18	(77.870) =	77.870 deg. F
temperature 19	(76.630) =	76.630 deg. F
temperature 20	(75.520) =	75.520 deg. F
temperature 21	(73.240) =	73.240 deg. F
temperature 22	(73.260) =	73.260 deg. F
temperature 23	(72.590) =	72.590 deg. F
temperature 24	(77.880) =	77.880 deg. F
dewpoint 1	(64.030) =	64.030 deg. F , 0.2953 psia
dewpoint 2	(64.500) =	64.500 deg. F , 0.3002 psia
dewpoint 3	(63.740) =	63.740 deg. F , 0.2923 psia
dewpoint 4	(64.290) =	64.290 deg. F , 0.2980 psia
dewpoint 5	(63.670) =	63.670 deg. F , 0.2916 psia
dewpoint 6	(60.580) =	60.580 deg. F , 0.2615 psia
pressure 1	(59.0882) =	59.0882 psia
pressure 2	(59.0892) =	59.0892 psia

weighted averages, volume and air mass

temperature	=	80.74317 deg. F
pressure	=	59.08920 psia
vapor pressure	=	0.29154 psia
volume	=	2649000 cu. ft.
dry air mass	=	777936.5 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 84

time = 800 date = 221

sensor	raw data	value
temperature 1	(83.750) =	83.750 deg. F
temperature 2	(83.690) =	83.690 deg. F
temperature 3	(83.520) =	83.520 deg. F
temperature 4	(83.510) =	83.510 deg. F
temperature 5	(83.430) =	83.430 deg. F
temperature 6	(83.490) =	83.490 deg. F
temperature 7	(82.970) =	82.970 deg. F
temperature 8	(83.060) =	83.060 deg. F
temperature 9	(83.130) =	83.130 deg. F
temperature 10	(82.760) =	82.760 deg. F
temperature 11	(82.590) =	82.590 deg. F
temperature 12	(82.530) =	82.530 deg. F
temperature 13	(81.960) =	81.960 deg. F
temperature 14	(81.170) =	81.170 deg. F
temperature 15	(80.970) =	80.970 deg. F
temperature 16	(79.800) =	79.800 deg. F
temperature 17	(78.930) =	78.930 deg. F
temperature 18	(77.900) =	77.900 deg. F
temperature 19	(76.640) =	76.640 deg. F
temperature 20	(75.520) =	75.520 deg. F
temperature 21	(73.250) =	73.250 deg. F
temperature 22	(73.270) =	73.270 deg. F
temperature 23	(72.570) =	72.570 deg. F
temperature 24	(77.890) =	77.890 deg. F
dewpoint 1	(64.420) =	64.420 deg. F , 0.2993 psia
dewpoint 2	(64.580) =	64.580 deg. F , 0.3010 psia
dewpoint 3	(64.170) =	64.170 deg. F , 0.2967 psia
dewpoint 4	(64.470) =	64.470 deg. F , 0.2999 psia
dewpoint 5	(63.960) =	63.960 deg. F , 0.2946 psia
dewpoint 6	(60.390) =	60.390 deg. F , 0.2597 psia
pressure 1	(59.7688) =	59.7688 psia
pressure 2	(59.7670) =	59.7670 psia

weighted averages, volume and air mass

temperature	=	80.77589 deg. F
pressure	=	59.76700 psia
vapor pressure	=	0.29380 psia
volume	=	2649000 cu. ft.
dry air mass	=	786826.7 lbm

PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 85

time = 815 date = 221

sensor	raw data	value
temperature 1	(83.740)	= 83.740 deg. F
temperature 2	(83.720)	= 83.720 deg. F
temperature 3	(83.600)	= 83.600 deg. F
temperature 4	(83.650)	= 83.650 deg. F
temperature 5	(83.420)	= 83.420 deg. F
temperature 6	(83.540)	= 83.540 deg. F
temperature 7	(82.980)	= 82.980 deg. F
temperature 8	(83.060)	= 83.060 deg. F
temperature 9	(83.110)	= 83.110 deg. F
temperature 10	(82.810)	= 82.810 deg. F
temperature 11	(82.670)	= 82.670 deg. F
temperature 12	(82.570)	= 82.570 deg. F
temperature 13	(82.000)	= 82.000 deg. F
temperature 14	(81.200)	= 81.200 deg. F
temperature 15	(80.990)	= 80.990 deg. F
temperature 16	(79.820)	= 79.820 deg. F
temperature 17	(78.960)	= 78.960 deg. F
temperature 18	(77.910)	= 77.910 deg. F
temperature 19	(76.660)	= 76.660 deg. F
temperature 20	(75.560)	= 75.560 deg. F
temperature 21	(73.230)	= 73.230 deg. F
temperature 22	(73.270)	= 73.270 deg. F
temperature 23	(72.570)	= 72.570 deg. F
temperature 24	(77.910)	= 77.910 deg. F
dewpoint 1	(64.480)	= 64.480 deg. F , 0.3000 psia
dewpoint 2	(64.800)	= 64.800 deg. F , 0.3033 psia
dewpoint 3	(64.350)	= 64.350 deg. F , 0.2986 psia
dewpoint 4	(64.260)	= 64.260 deg. F , 0.2977 psia
dewpoint 5	(63.940)	= 63.940 deg. F , 0.2943 psia
dewpoint 6	(60.880)	= 60.880 deg. F , 0.2643 psia
pressure 1	(60.4404)	= 60.4404 psia
pressure 2	(60.4428)	= 60.4428 psia

weighted averages, volume and air mass

temperature	=	80.80488 deg. F
pressure	=	60.44280 psia
vapor pressure	=	0.29484 psia
volume	=	2649000 cu. ft.
dry air mass	=	795711.1 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 86

time = 830 date = 221

sensor	raw data	value
temperature 1	(83.700) =	83.700 deg. F
temperature 2	(83.760) =	83.760 deg. F
temperature 3	(83.580) =	83.580 deg. F
temperature 4	(83.620) =	83.620 deg. F
temperature 5	(83.460) =	83.460 deg. F
temperature 6	(83.550) =	83.550 deg. F
temperature 7	(83.020) =	83.020 deg. F
temperature 8	(83.120) =	83.120 deg. F
temperature 9	(83.140) =	83.140 deg. F
temperature 10	(82.820) =	82.820 deg. F
temperature 11	(82.660) =	82.660 deg. F
temperature 12	(82.580) =	82.580 deg. F
temperature 13	(81.980) =	81.980 deg. F
temperature 14	(81.240) =	81.240 deg. F
temperature 15	(81.010) =	81.010 deg. F
temperature 16	(79.820) =	79.820 deg. F
temperature 17	(78.940) =	78.940 deg. F
temperature 18	(77.910) =	77.910 deg. F
temperature 19	(76.670) =	76.670 deg. F
temperature 20	(75.550) =	75.550 deg. F
temperature 21	(73.250) =	73.250 deg. F
temperature 22	(73.290) =	73.290 deg. F
temperature 23	(72.560) =	72.560 deg. F
temperature 24	(77.910) =	77.910 deg. F
dewpoint 1	(64.530) =	64.530 deg. F , 0.3005 psia
dewpoint 2	(65.000) =	65.000 deg. F , 0.3055 psia
dewpoint 3	(64.020) =	64.020 deg. F , 0.2952 psia
dewpoint 4	(64.640) =	64.640 deg. F , 0.3016 psia
dewpoint 5	(64.050) =	64.050 deg. F , 0.2955 psia
dewpoint 6	(60.760) =	60.760 deg. F , 0.2631 psia
pressure 1	(61.1105) =	61.1105 psia
pressure 2	(61.1097) =	61.1097 psia

weighted averages, volume and air mass

temperature	=	80.81393 deg. F
pressure	=	61.10970 psia
vapor pressure	=	0.29540 psia
volume	=	2649000 cu. ft.
dry air mass	=	804512.8 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 87

time = 845 date = 221

sensor	raw data	value
temperature 1 (	83.550)	= 83.550 deg. F
temperature 2 (	83.670)	= 83.670 deg. F
temperature 3 (	83.500)	= 83.500 deg. F
temperature 4 (	83.470)	= 83.470 deg. F
temperature 5 (	83.370)	= 83.370 deg. F
temperature 6 (	83.410)	= 83.410 deg. F
temperature 7 (	82.920)	= 82.920 deg. F
temperature 8 (	82.990)	= 82.990 deg. F
temperature 9 (	83.030)	= 83.030 deg. F
temperature 10 (	82.700)	= 82.700 deg. F
temperature 11 (	82.570)	= 82.570 deg. F
temperature 12 (	82.470)	= 82.470 deg. F
temperature 13 (	81.910)	= 81.910 deg. F
temperature 14 (	81.170)	= 81.170 deg. F
temperature 15 (	80.960)	= 80.960 deg. F
temperature 16 (	79.770)	= 79.770 deg. F
temperature 17 (	78.900)	= 78.900 deg. F
temperature 18 (	77.810)	= 77.810 deg. F
temperature 19 (	76.700)	= 76.700 deg. F
temperature 20 (	75.640)	= 75.640 deg. F
temperature 21 (	73.140)	= 73.140 deg. F
temperature 22 (	73.250)	= 73.250 deg. F
temperature 23 (	72.480)	= 72.480 deg. F
temperature 24 (	77.880)	= 77.880 deg. F
dewpoint 1 (	64.590)	= 64.590 deg. F , 0.3011 psia
dewpoint 2 (	64.940)	= 64.940 deg. F , 0.3048 psia
dewpoint 3 (	64.490)	= 64.490 deg. F , 0.3001 psia
dewpoint 4 (	64.530)	= 64.530 deg. F , 0.3005 psia
dewpoint 5 (	64.160)	= 64.160 deg. F , 0.2966 psia
dewpoint 6 (	60.920)	= 60.920 deg. F , 0.2646 psia

pressure 1 (	61.6919)	=	61.6919 psia
pressure 2 (	61.6892)	=	61.6892 psia

weighted averages, volume and air mass

temperature	=	80.73116 deg. F
pressure	=	61.68920 psia
vapor pressure	=	0.29649 psia
volume	=	2649000 cu. ft.
dry air mass	=	812288.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 88

time = 900 date = 221

sensor		raw data		value	
temperature	1	(83.490)	=	83.490 deg. F	
temperature	2	(83.530)	=	83.530 deg. F	
temperature	3	(83.390)	=	83.390 deg. F	
temperature	4	(83.350)	=	83.350 deg. F	
temperature	5	(83.190)	=	83.190 deg. F	
temperature	6	(83.330)	=	83.330 deg. F	
temperature	7	(82.830)	=	82.830 deg. F	
temperature	8	(82.880)	=	82.880 deg. F	
temperature	9	(82.990)	=	82.990 deg. F	
temperature	10	(82.640)	=	82.640 deg. F	
temperature	11	(82.440)	=	82.440 deg. F	
temperature	12	(82.420)	=	82.420 deg. F	
temperature	13	(81.840)	=	81.840 deg. F	
temperature	14	(81.110)	=	81.110 deg. F	
temperature	15	(80.920)	=	80.920 deg. F	
temperature	16	(79.750)	=	79.750 deg. F	
temperature	17	(78.920)	=	78.920 deg. F	
temperature	18	(77.790)	=	77.790 deg. F	
temperature	19	(76.720)	=	76.720 deg. F	
temperature	20	(75.650)	=	75.650 deg. F	
temperature	21	(73.120)	=	73.120 deg. F	
temperature	22	(73.270)	=	73.270 deg. F	
temperature	23	(72.460)	=	72.460 deg. F	
temperature	24	(77.900)	=	77.900 deg. F	
dewpoint	1	(64.570)	=	64.570 deg. F	, 0.3009 psia
dewpoint	2	(65.110)	=	65.110 deg. F	, 0.3066 psia
dewpoint	3	(64.690)	=	64.690 deg. F	, 0.3022 psia
dewpoint	4	(64.830)	=	64.830 deg. F	, 0.3036 psia
dewpoint	5	(64.190)	=	64.190 deg. F	, 0.2969 psia
dewpoint	6	(60.880)	=	60.880 deg. F	, 0.2643 psia
pressure	1	(62.2698)	=	62.2698 psia	
pressure	2	(62.2695)	=	62.2695 psia	

weighted averages, volume and air mass

temperature	=	80.66959 deg. F
pressure	=	62.26950 psia
vapor pressure	=	0.29780 psia
volume	=	2649000 cu. ft.
dry air mass	=	820043.1 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 89

time = 915 date = 221

sensor	raw data	value
temperature 1	(83.470) =	83.470 deg. F
temperature 2	(83.450) =	83.450 deg. F
temperature 3	(83.380) =	83.380 deg. F
temperature 4	(83.270) =	83.270 deg. F
temperature 5	(83.190) =	83.190 deg. F
temperature 6	(83.260) =	83.260 deg. F
temperature 7	(82.840) =	82.840 deg. F
temperature 8	(82.910) =	82.910 deg. F
temperature 9	(82.960) =	82.960 deg. F
temperature 10	(82.620) =	82.620 deg. F
temperature 11	(82.440) =	82.440 deg. F
temperature 12	(82.390) =	82.390 deg. F
temperature 13	(81.870) =	81.870 deg. F
temperature 14	(81.120) =	81.120 deg. F
temperature 15	(80.940) =	80.940 deg. F
temperature 16	(79.800) =	79.800 deg. F
temperature 17	(78.960) =	78.960 deg. F
temperature 18	(77.830) =	77.830 deg. F
temperature 19	(76.750) =	76.750 deg. F
temperature 20	(75.660) =	75.660 deg. F
temperature 21	(73.170) =	73.170 deg. F
temperature 22	(73.280) =	73.280 deg. F
temperature 23	(72.490) =	72.490 deg. F
temperature 24	(77.920) =	77.920 deg. F
dewpoint 1	(64.820) =	64.820 deg. F , 0.3035 psia
dewpoint 2	(65.110) =	65.110 deg. F , 0.3066 psia
dewpoint 3	(64.770) =	64.770 deg. F , 0.3030 psia
dewpoint 4	(65.080) =	65.080 deg. F , 0.3063 psia
dewpoint 5	(64.450) =	64.450 deg. F , 0.2996 psia
dewpoint 6	(61.190) =	61.190 deg. F , 0.2672 psia
pressure 1	(62.8787) =	62.8787 psia
pressure 2	(62.8781) =	62.8781 psia

weighted averages, volume and air mass

temperature	=	80.66921 deg. F
pressure	=	62.87810 psia
vapor pressure	=	0.29962 psia
volume	=	2649000 cu. ft.
dry air mass	=	828072.9 lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 90

time = 930 date = 221

sensor		raw data		value
temperature	1	(83.490)	=	83.490 deg. F
temperature	2	(83.540)	=	83.540 deg. F
temperature	3	(83.420)	=	83.420 deg. F
temperature	4	(83.460)	=	83.460 deg. F
temperature	5	(83.240)	=	83.240 deg. F
temperature	6	(83.340)	=	83.340 deg. F
temperature	7	(82.880)	=	82.880 deg. F
temperature	8	(82.940)	=	82.940 deg. F
temperature	9	(82.990)	=	82.990 deg. F
temperature	10	(82.660)	=	82.660 deg. F
temperature	11	(82.520)	=	82.520 deg. F
temperature	12	(82.460)	=	82.460 deg. F
temperature	13	(81.930)	=	81.930 deg. F
temperature	14	(81.210)	=	81.210 deg. F
temperature	15	(81.000)	=	81.000 deg. F
temperature	16	(79.870)	=	79.870 deg. F
temperature	17	(79.010)	=	79.010 deg. F
temperature	18	(77.920)	=	77.920 deg. F
temperature	19	(76.770)	=	76.770 deg. F
temperature	20	(75.650)	=	75.650 deg. F
temperature	21	(73.250)	=	73.250 deg. F
temperature	22	(73.300)	=	73.300 deg. F
temperature	23	(72.530)	=	72.530 deg. F
temperature	24	(77.950)	=	77.950 deg. F
dewpoint	1	(65.150)	=	65.150 deg. F , 0.3071 psia
dewpoint	2	(65.280)	=	65.280 deg. F , 0.3084 psia
dewpoint	3	(64.900)	=	64.900 deg. F , 0.3044 psia
dewpoint	4	(65.040)	=	65.040 deg. F , 0.3059 psia
dewpoint	5	(64.530)	=	64.530 deg. F , 0.3005 psia
dewpoint	6	(60.770)	=	60.770 deg. F , 0.2632 psia
pressure	1	(63.5337)	=	63.5337 psia
pressure	2	(63.5316)	=	63.5316 psia

weighted averages, volume and air mass

temperature	=	80.72776 deg. F
pressure	=	63.53160 psia
vapor pressure	=	0.30039 psia
volume	=	2649000 cu. ft.
dry air mass	=	836619.5 lbm



PVNGS UNIT 1-1990-1LRT-PRESSURIZATION

data set 91

time = 945 date = 221

sensor		raw data		value	
temperature	1	(83.550)	=	83.550	deg. F
temperature	2	(83.600)	=	83.600	deg. F
temperature	3	(83.530)	=	83.530	deg. F
temperature	4	(83.460)	=	83.460	deg. F
temperature	5	(83.270)	=	83.270	deg. F
temperature	6	(83.400)	=	83.400	deg. F
temperature	7	(82.990)	=	82.990	deg. F
temperature	8	(83.060)	=	83.060	deg. F
temperature	9	(83.050)	=	83.050	deg. F
temperature	10	(82.710)	=	82.710	deg. F
temperature	11	(82.620)	=	82.620	deg. F
temperature	12	(82.550)	=	82.550	deg. F
temperature	13	(82.000)	=	82.000	deg. F
temperature	14	(81.260)	=	81.260	deg. F
temperature	15	(81.060)	=	81.060	deg. F
temperature	16	(79.930)	=	79.930	deg. F
temperature	17	(79.040)	=	79.040	deg. F
temperature	18	(77.940)	=	77.940	deg. F
temperature	19	(76.780)	=	76.780	deg. F
temperature	20	(75.680)	=	75.680	deg. F
temperature	21	(73.190)	=	73.190	deg. F
temperature	22	(73.310)	=	73.310	deg. F
temperature	23	(72.530)	=	72.530	deg. F
temperature	24	(77.970)	=	77.970	deg. F
dewpoint	1	(65.120)	=	65.120	deg. F , 0.3067 psia
dewpoint	2	(65.440)	=	65.440	deg. F , 0.3102 psia
dewpoint	3	(65.130)	=	65.130	deg. F , 0.3068 psia
dewpoint	4	(65.260)	=	65.260	deg. F , 0.3082 psia
dewpoint	5	(64.740)	=	64.740	deg. F , 0.3027 psia
dewpoint	6	(61.420)	=	61.420	deg. F , 0.2694 psia
pressure	1	(64.1944)	=	64.1944	psia
pressure	2	(64.1929)	=	64.1929	psia

weighted averages, volume and air mass

temperature	=	80.78026	deg. F
pressure	=	64.19290	psia
vapor pressure	=	0.30264	psia
volume	=	2649000	cu. ft.
dry air mass	=	845257.4	lbm



PVNGS UNIT 1-1990-ILRT-PRESSURIZATION

data set 92

time = 1000 date = 221

sensor		raw data		value	
temperature	1	(83.300)	=	83.300	deg. F
temperature	2	(83.410)	=	83.410	deg. F
temperature	3	(83.260)	=	83.260	deg. F
temperature	4	(83.250)	=	83.250	deg. F
temperature	5	(83.160)	=	83.160	deg. F
temperature	6	(83.210)	=	83.210	deg. F
temperature	7	(82.740)	=	82.740	deg. F
temperature	8	(82.850)	=	82.850	deg. F
temperature	9	(82.880)	=	82.880	deg. F
temperature	10	(82.590)	=	82.590	deg. F
temperature	11	(82.420)	=	82.420	deg. F
temperature	12	(82.350)	=	82.350	deg. F
temperature	13	(81.800)	=	81.800	deg. F
temperature	14	(81.080)	=	81.080	deg. F
temperature	15	(80.940)	=	80.940	deg. F
temperature	16	(79.790)	=	79.790	deg. F
temperature	17	(78.910)	=	78.910	deg. F
temperature	18	(77.700)	=	77.700	deg. F
temperature	19	(76.830)	=	76.830	deg. F
temperature	20	(75.880)	=	75.880	deg. F
temperature	21	(73.350)	=	73.350	deg. F
temperature	22	(73.320)	=	73.320	deg. F
temperature	23	(72.370)	=	72.370	deg. F
temperature	24	(77.860)	=	77.860	deg. F
dewpoint	1	(65.360)	=	65.360	deg. F , 0.3093 psia
dewpoint	2	(65.480)	=	65.480	deg. F , 0.3106 psia
dewpoint	3	(65.090)	=	65.090	deg. F , 0.3064 psia
dewpoint	4	(65.310)	=	65.310	deg. F , 0.3088 psia
dewpoint	5	(64.740)	=	64.740	deg. F , 0.3027 psia
dewpoint	6	(61.570)	=	61.570	deg. F , 0.2708 psia
pressure	1	(64.6483)	=	64.6483	psia
pressure	2	(64.6475)	=	64.6475	psia

weighted averages, volume and air mass

temperature	=	80.63503	deg. F
pressure	=	64.64750	psia
vapor pressure	=	0.30332	psia
volume	=	2649000	cu. ft.
dry air mass	=	851491.4	lbm



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix III

STABILIZATION
DATA SET



PVNGS UNIT1-1990-ILRT-STABILIZATION

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	1000	221	80.6350	64.6475	0.3033	851491.4
2	1015	221	79.8134	64.5338	0.3013	851308.1
3	1030	221	79.2057	64.4641	0.3008	851349.6
4	1045	221	78.7712	64.4156	0.2993	851413.4
5	1100	221	78.4506	64.3794	0.2985	851450.1
6	1115	221	78.2072	64.3506	0.2968	851474.4
7	1130	221	78.0022	64.3269	0.2972	851479.4
8	1145	221	77.8400	64.3066	0.2967	851473.2
9	1200	221	77.6973	64.2894	0.2960	851479.6
10	1215	221	77.5749	64.2743	0.2957	851475.6
11	1230	221	77.4644	64.2607	0.2955	851472.5
12	1245	221	77.3671	64.2487	0.2947	851477.4
13	1300	221	77.2792	64.2378	0.2950	851468.4
14	1315	221	77.1962	64.2277	0.2952	851463.0
15	1330	221	77.1213	64.2185	0.2947	851465.2
16	1345	221	77.0513	64.2098	0.2947	851461.0
17	1400	221	76.9846	64.2016	0.2946	851458.5
18	1415	221	76.9267	64.1937	0.2941	851452.1
19	1430	221	76.8647	64.1861	0.2938	851452.4

PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 1

time = 1000 date = 221

sensor	raw data	value
temperature 1	(83.300) =	83.300 deg. F
temperature 2	(83.410) =	83.410 deg. F
temperature 3	(83.260) =	83.260 deg. F
temperature 4	(83.250) =	83.250 deg. F
temperature 5	(83.160) =	83.160 deg. F
temperature 6	(83.210) =	83.210 deg. F
temperature 7	(82.740) =	82.740 deg. F
temperature 8	(82.850) =	82.850 deg. F
temperature 9	(82.880) =	82.880 deg. F
temperature 10	(82.590) =	82.590 deg. F
temperature 11	(82.420) =	82.420 deg. F
temperature 12	(82.350) =	82.350 deg. F
temperature 13	(81.800) =	81.800 deg. F
temperature 14	(81.080) =	81.080 deg. F
temperature 15	(80.940) =	80.940 deg. F
temperature 16	(79.790) =	79.790 deg. F
temperature 17	(78.910) =	78.910 deg. F
temperature 18	(77.700) =	77.700 deg. F
temperature 19	(76.830) =	76.830 deg. F
temperature 20	(75.880) =	75.880 deg. F
temperature 21	(73.350) =	73.350 deg. F
temperature 22	(73.320) =	73.320 deg. F
temperature 23	(72.370) =	72.370 deg. F
temperature 24	(77.860) =	77.860 deg. F
dewpoint 1	(65.360) =	65.360 deg. F , 0.3093 psia
dewpoint 2	(65.480) =	65.480 deg. F , 0.3106 psia
dewpoint 3	(65.090) =	65.090 deg. F , 0.3064 psia
dewpoint 4	(65.310) =	65.310 deg. F , 0.3088 psia
dewpoint 5	(64.740) =	64.740 deg. F , 0.3027 psia
dewpoint 6	(61.570) =	61.570 deg. F , 0.2708 psia
pressure 1	(64.6483) =	64.6483 psia
pressure 2	(64.6475) =	64.6475 psia

weighted averages, volume and air mass

temperature	=	80.63503 deg. F
pressure	=	64.64750 psia
vapor pressure	=	0.30332 psia
volume	=	2649000 cu. ft.
dry air mass	=	851491.4 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 2

time = 1015 date = 221

sensor	raw data	value
temperature 1	(81.920) =	81.920 deg. F
temperature 2	(82.050) =	82.050 deg. F
temperature 3	(82.030) =	82.030 deg. F
temperature 4	(81.970) =	81.970 deg. F
temperature 5	(81.870) =	81.870 deg. F
temperature 6	(81.830) =	81.830 deg. F
temperature 7	(81.580) =	81.580 deg. F
temperature 8	(81.740) =	81.740 deg. F
temperature 9	(81.720) =	81.720 deg. F
temperature 10	(81.550) =	81.550 deg. F
temperature 11	(81.360) =	81.360 deg. F
temperature 12	(81.360) =	81.360 deg. F
temperature 13	(80.950) =	80.950 deg. F
temperature 14	(80.190) =	80.190 deg. F
temperature 15	(80.250) =	80.250 deg. F
temperature 16	(79.170) =	79.170 deg. F
temperature 17	(78.470) =	78.470 deg. F
temperature 18	(77.140) =	77.140 deg. F
temperature 19	(76.750) =	76.750 deg. F
temperature 20	(75.650) =	75.650 deg. F
temperature 21	(74.410) =	74.410 deg. F
temperature 22	(73.520) =	73.520 deg. F
temperature 23	(72.080) =	72.080 deg. F
temperature 24	(77.490) =	77.490 deg. F
dewpoint 1	(64.960) =	64.960 deg. F , 0.3050 psia
dewpoint 2	(64.990) =	64.990 deg. F , 0.3053 psia
dewpoint 3	(64.790) =	64.790 deg. F , 0.3032 psia
dewpoint 4	(65.260) =	65.260 deg. F , 0.3082 psia
dewpoint 5	(64.860) =	64.860 deg. F , 0.3040 psia
dewpoint 6	(61.760) =	61.760 deg. F , 0.2726 psia
pressure 1	(64.5347) =	64.5347 psia
pressure 2	(64.5338) =	64.5338 psia

weighted averages, volume and air mass

temperature	=	79.81344 deg. F
pressure	=	64.53380 psia
vapor pressure	=	0.30129 psia
volume	=	2649000 cu. ft.
dry air mass	=	851308.1 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 3

time, = 1030 date = 221

sensor	raw data	value
temperature 1 (80.780)	=	80.780 deg. F
temperature 2 (80.930)	=	80.930 deg. F
temperature 3 (80.970)	=	80.970 deg. F
temperature 4 (80.930)	=	80.930 deg. F
temperature 5 (80.920)	=	80.920 deg. F
temperature 6 (81.020)	=	81.020 deg. F
temperature 7 (80.680)	=	80.680 deg. F
temperature 8 (80.890)	=	80.890 deg. F
temperature 9 (80.910)	=	80.910 deg. F
temperature 10 (80.700)	=	80.700 deg. F
temperature 11 (80.580)	=	80.580 deg. F
temperature 12 (80.600)	=	80.600 deg. F
temperature 13 (80.260)	=	80.260 deg. F
temperature 14 (79.570)	=	79.570 deg. F
temperature 15 (79.790)	=	79.790 deg. F
temperature 16 (78.860)	=	78.860 deg. F
temperature 17 (78.280)	=	78.280 deg. F
temperature 18 (76.990)	=	76.990 deg. F
temperature 19 (76.710)	=	76.710 deg. F
temperature 20 (75.560)	=	75.560 deg. F
temperature 21 (74.480)	=	74.480 deg. F
temperature 22 (73.640)	=	73.640 deg. F
temperature 23 (72.110)	=	72.110 deg. F
temperature 24 (77.430)	=	77.430 deg. F
dewpoint 1 (64.480)	=	64.480 deg. F , 0.3000 psia
dewpoint 2 (64.960)	=	64.960 deg. F , 0.3050 psia
dewpoint 3 (64.880)	=	64.880 deg. F , 0.3042 psia
dewpoint 4 (65.080)	=	65.080 deg. F , 0.3063 psia
dewpoint 5 (65.130)	=	65.130 deg. F , 0.3068 psia
dewpoint 6 (61.890)	=	61.890 deg. F , 0.2739 psia
pressure 1 (64.4652)	=	64.4652 psia
pressure 2 (64.4641)	=	64.4641 psia

weighted averages, volume and air mass

temperature	=	79.20567 deg. F
pressure	=	64.46410 psia
vapor pressure	=	0.30083 psia
volume	=	2649000 cu. ft.
dry air mass	=	851349.6 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 5

time = 1100 date = 221

sensor		raw data		value	
temperature	1 (79.480)	=	79.480 deg. F		
temperature	2 (79.630)	=	79.630 deg. F		
temperature	3 (79.650)	=	79.650 deg. F		
temperature	4 (79.710)	=	79.710 deg. F		
temperature	5 (79.730)	=	79.730 deg. F		
temperature	6 (79.850)	=	79.850 deg. F		
temperature	7 (79.570)	=	79.570 deg. F		
temperature	8 (79.790)	=	79.790 deg. F		
temperature	9 (79.770)	=	79.770 deg. F		
temperature	10 (79.650)	=	79.650 deg. F		
temperature	11 (79.620)	=	79.620 deg. F		
temperature	12 (79.660)	=	79.660 deg. F		
temperature	13 (79.350)	=	79.350 deg. F		
temperature	14 (78.850)	=	78.850 deg. F		
temperature	15 (79.140)	=	79.140 deg. F		
temperature	16 (78.390)	=	78.390 deg. F		
temperature	17 (78.110)	=	78.110 deg. F		
temperature	18 (76.920)	=	76.920 deg. F		
temperature	19 (76.650)	=	76.650 deg. F		
temperature	20 (75.530)	=	75.530 deg. F		
temperature	21 (74.580)	=	74.580 deg. F		
temperature	22 (73.830)	=	73.830 deg. F		
temperature	23 (72.180)	=	72.180 deg. F		
temperature	24 (77.400)	=	77.400 deg. F		
dewpoint	1 (64.240)	=	64.240 deg. F	, 0.2975	psia
dewpoint	2 (64.650)	=	64.650 deg. F	, 0.3017	psia
dewpoint	3 (64.540)	=	64.540 deg. F	, 0.3006	psia
dewpoint	4 (64.690)	=	64.690 deg. F	, 0.3022	psia
dewpoint	5 (65.030)	=	65.030 deg. F	, 0.3058	psia
dewpoint	6 (62.140)	=	62.140 deg. F	, 0.2763	psia
pressure	1 (64.3801)	=	64.3801		psia
pressure	2 (64.3794)	=	64.3794		psia

weighted averages, volume and air mass

temperature	=	78.45065 deg. F
pressure	=	64.37940 psia
vapor pressure	=	0.29847 psia
volume	=	2649000 cu. ft.
dry air mass	=	851450.1 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 6

time = 1115 date = 221

sensor		raw data		value	
temperature	1 (	79.170)	=	79.170 deg. F	
temperature	2 (	79.200)	=	79.200 deg. F	
temperature	3 (	79.290)	=	79.290 deg. F	
temperature	4 (	79.270)	=	79.270 deg. F	
temperature	5 (	79.330)	=	79.330 deg. F	
temperature	6 (	79.500)	=	79.500 deg. F	
temperature	7 (	79.210)	=	79.210 deg. F	
temperature	8 (	79.440)	=	79.440 deg. F	
temperature	9 (	79.440)	=	79.440 deg. F	
temperature	10 (	79.330)	=	79.330 deg. F	
temperature	11 (	79.310)	=	79.310 deg. F	
temperature	12 (	79.350)	=	79.350 deg. F	
temperature	13 (	79.070)	=	79.070 deg. F	
temperature	14 (	78.570)	=	78.570 deg. F	
temperature	15 (	78.880)	=	78.880 deg. F	
temperature	16 (	78.170)	=	78.170 deg. F	
temperature	17 (	78.020)	=	78.020 deg. F	
temperature	18 (	76.870)	=	76.870 deg. F	
temperature	19 (	76.630)	=	76.630 deg. F	
temperature	20 (	75.530)	=	75.530 deg. F	
temperature	21 (	74.640)	=	74.640 deg. F	
temperature	22 (	73.900)	=	73.900 deg. F	
temperature	23 (	72.220)	=	72.220 deg. F	
temperature	24 (	77.380)	=	77.380 deg. F	
dewpoint	1 (	64.000)	=	64.000 deg. F	0.2950 psia
dewpoint	2 (	64.450)	=	64.450 deg. F	0.2996 psia
dewpoint	3 (	64.350)	=	64.350 deg. F	0.2986 psia
dewpoint	4 (	64.530)	=	64.530 deg. F	0.3005 psia
dewpoint	5 (	65.010)	=	65.010 deg. F	0.3056 psia
dewpoint	6 (	62.060)	=	62.060 deg. F	0.2755 psia
pressure	1 (	64.3507)	=	64.3507 psia	
pressure	2 (	64.3506)	=	64.3506 psia	

weighted averages, volume and air mass

temperature	=	78.20718 deg. F
pressure	=	64.35060 psia
vapor pressure	=	0.29684 psia
volume	=	2649000 cu. ft.
dry air mass	=	851474.3 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 7

time = 1130 date = 221

sensor	raw data	value
temperature 1 (	78.870)	= 78.870 deg. F
temperature 2 (	78.920)	= 78.920 deg. F
temperature 3 (	79.010)	= 79.010 deg. F
temperature 4 (	79.010)	= 79.010 deg. F
temperature 5 (	79.030)	= 79.030 deg. F
temperature 6 (	79.170)	= 79.170 deg. F
temperature 7 (	78.930)	= 78.930 deg. F
temperature 8 (	79.060)	= 79.060 deg. F
temperature 9 (	79.090)	= 79.090 deg. F
temperature 10 (	79.040)	= 79.040 deg. F
temperature 11 (	79.090)	= 79.090 deg. F
temperature 12 (	79.110)	= 79.110 deg. F
temperature 13 (	78.880)	= 78.880 deg. F
temperature 14 (	78.260)	= 78.260 deg. F
temperature 15 (	78.660)	= 78.660 deg. F
temperature 16 (	77.980)	= 77.980 deg. F
temperature 17 (	77.930)	= 77.930 deg. F
temperature 18 (	76.810)	= 76.810 deg. F
temperature 19 (	76.610)	= 76.610 deg. F
temperature 20 (	75.530)	= 75.530 deg. F
temperature 21 (	74.680)	= 74.680 deg. F
temperature 22 (	73.950)	= 73.950 deg. F
temperature 23 (	72.250)	= 72.250 deg. F
temperature 24 (	77.350)	= 77.350 deg. F
dewpoint 1 (	64.030)	= 64.030 deg. F , 0.2953 psia
dewpoint 2 (	64.400)	= 64.400 deg. F , 0.2991 psia
dewpoint 3 (	64.320)	= 64.320 deg. F , 0.2983 psia
dewpoint 4 (	64.530)	= 64.530 deg. F , 0.3005 psia
dewpoint 5 (	64.920)	= 64.920 deg. F , 0.3046 psia
dewpoint 6 (	62.560)	= 62.560 deg. F , 0.2804 psia
pressure 1 (	64.3270)	= 64.3270 psia
pressure 2 (	64.3269)	= 64.3269 psia

weighted averages, volume and air mass

temperature	=	78.00219 deg. F
pressure	=	64.32690 psia
vapor pressure	=	0.29717 psia
volume	=	2649000 cu. ft.
dry air mass	=	851479.4 lbm

PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 8

time = 1145 date = 221

sensor	raw data	value
temperature 1	(78.640) =	78.640 deg. F
temperature 2	(78.690) =	78.690 deg. F
temperature 3	(78.750) =	78.750 deg. F
temperature 4	(78.740) =	78.740 deg. F
temperature 5	(78.800) =	78.800 deg. F
temperature 6	(78.950) =	78.950 deg. F
temperature 7	(78.670) =	78.670 deg. F
temperature 8	(78.820) =	78.820 deg. F
temperature 9	(78.840) =	78.840 deg. F
temperature 10	(78.840) =	78.840 deg. F
temperature 11	(78.880) =	78.880 deg. F
temperature 12	(78.880) =	78.880 deg. F
temperature 13	(78.710) =	78.710 deg. F
temperature 14	(78.060) =	78.060 deg. F
temperature 15	(78.470) =	78.470 deg. F
temperature 16	(77.910) =	77.910 deg. F
temperature 17	(77.830) =	77.830 deg. F
temperature 18	(76.750) =	76.750 deg. F
temperature 19	(76.580) =	76.580 deg. F
temperature 20	(75.550) =	75.550 deg. F
temperature 21	(74.710) =	74.710 deg. F
temperature 22	(73.980) =	73.980 deg. F
temperature 23	(72.280) =	72.280 deg. F
temperature 24	(77.320) =	77.320 deg. F
dewpoint 1	(63.890) =	63.890 deg. F , 0.2938 psia
dewpoint 2	(64.340) =	64.340 deg. F , 0.2985 psia
dewpoint 3	(64.250) =	64.250 deg. F , 0.2976 psia
dewpoint 4	(64.500) =	64.500 deg. F , 0.3002 psia
dewpoint 5	(64.780) =	64.780 deg. F , 0.3031 psia
dewpoint 6	(62.780) =	62.780 deg. F , 0.2826 psia
pressure 1	(64.3067) =	64.3067 psia
pressure 2	(64.3066) =	64.3066 psia

weighted averages, volume and air mass

temperature	=	77.83999 deg. F
pressure	=	64.30660 psia
vapor pressure	=	0.29665 psia
volume	=	2649000 cu. ft.
dry air mass	=	851473.2 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 9

time = 1200 date = 221

sensor		raw data		value	
temperature	1	(78.440)	=	78.440	deg. F
temperature	2	(78.490)	=	78.490	deg. F
temperature	3	(78.550)	=	78.550	deg. F
temperature	4	(78.540)	=	78.540	deg. F
temperature	5	(78.550)	=	78.550	deg. F
temperature	6	(78.710)	=	78.710	deg. F
temperature	7	(78.480)	=	78.480	deg. F
temperature	8	(78.630)	=	78.630	deg. F
temperature	9	(78.690)	=	78.690	deg. F
temperature	10	(78.620)	=	78.620	deg. F
temperature	11	(78.720)	=	78.720	deg. F
temperature	12	(78.710)	=	78.710	deg. F
temperature	13	(78.500)	=	78.500	deg. F
temperature	14	(77.910)	=	77.910	deg. F
temperature	15	(78.330)	=	78.330	deg. F
temperature	16	(77.730)	=	77.730	deg. F
temperature	17	(77.730)	=	77.730	deg. F
temperature	18	(76.700)	=	76.700	deg. F
temperature	19	(76.550)	=	76.550	deg. F
temperature	20	(75.570)	=	75.570	deg. F
temperature	21	(74.740)	=	74.740	deg. F
temperature	22	(74.010)	=	74.010	deg. F
temperature	23	(72.310)	=	72.310	deg. F
temperature	24	(77.310)	=	77.310	deg. F
dewpoint	1	(63.900)	=	63.900	deg. F , 0.2939 psia
dewpoint	2	(64.240)	=	64.240	deg. F , 0.2975 psia
dewpoint	3	(64.190)	=	64.190	deg. F , 0.2969 psia
dewpoint	4	(64.400)	=	64.400	deg. F , 0.2991 psia
dewpoint	5	(64.660)	=	64.660	deg. F , 0.3018 psia
dewpoint	6	(62.770)	=	62.770	deg. F , 0.2825 psia
pressure	1	(64.2896)	=	64.2896	psia
pressure	2	(64.2894)	=	64.2894	psia

weighted averages, volume and air mass

temperature	=	77.69734	deg. F
pressure	=	64.28940	psia
vapor pressure	=	0.29596	psia
volume	=	2649000	cu. ft.
dry air mass	=	851479.6	lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 10

time = 1215 date = 221

sensor		raw data		value	
temperature	1	(78.240)	=	78.240	deg. F
temperature	2	(78.310)	=	78.310	deg. F
temperature	3	(78.380)	=	78.380	deg. F
temperature	4	(78.360)	=	78.360	deg. F
temperature	5	(78.410)	=	78.410	deg. F
temperature	6	(78.540)	=	78.540	deg. F
temperature	7	(78.290)	=	78.290	deg. F
temperature	8	(78.460)	=	78.460	deg. F
temperature	9	(78.500)	=	78.500	deg. F
temperature	10	(78.470)	=	78.470	deg. F
temperature	11	(78.540)	=	78.540	deg. F
temperature	12	(78.540)	=	78.540	deg. F
temperature	13	(78.340)	=	78.340	deg. F
temperature	14	(77.760)	=	77.760	deg. F
temperature	15	(78.200)	=	78.200	deg. F
temperature	16	(77.650)	=	77.650	deg. F
temperature	17	(77.640)	=	77.640	deg. F
temperature	18	(76.640)	=	76.640	deg. F
temperature	19	(76.510)	=	76.510	deg. F
temperature	20	(75.590)	=	75.590	deg. F
temperature	21	(74.790)	=	74.790	deg. F
temperature	22	(74.050)	=	74.050	deg. F
temperature	23	(72.330)	=	72.330	deg. F
temperature	24	(77.280)	=	77.280	deg. F
dewpoint	1	(63.720)	=	63.720	deg. F , 0.2921 psia
dewpoint	2	(64.180)	=	64.180	deg. F , 0.2968 psia
dewpoint	3	(64.150)	=	64.150	deg. F , 0.2965 psia
dewpoint	4	(64.310)	=	64.310	deg. F , 0.2982 psia
dewpoint	5	(64.580)	=	64.580	deg. F , 0.3010 psia
dewpoint	6	(63.260)	=	63.260	deg. F , 0.2874 psia
pressure	1	(64.2746)	=	64.2746	psia
pressure	2	(64.2743)	=	64.2743	psia

weighted averages, volume and air mass

temperature	=	77.57486	deg. F
pressure	=	64.27430	psia
vapor pressure	=	0.29575	psia
volume	=	2649000	cu. ft.
dry air mass	=	851475.5	lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 11

time = 1230 date = 221

sensor	raw data	value
temperature 1	(78.120) =	78.120 deg. F
temperature 2	(78.160) =	78.160 deg. F
temperature 3	(78.220) =	78.220 deg. F
temperature 4	(78.200) =	78.200 deg. F
temperature 5	(78.290) =	78.290 deg. F
temperature 6	(78.390) =	78.390 deg. F
temperature 7	(78.110) =	78.110 deg. F
temperature 8	(78.280) =	78.280 deg. F
temperature 9	(78.360) =	78.360 deg. F
temperature 10	(78.330) =	78.330 deg. F
temperature 11	(78.380) =	78.380 deg. F
temperature 12	(78.400) =	78.400 deg. F
temperature 13	(78.200) =	78.200 deg. F
temperature 14	(77.650) =	77.650 deg. F
temperature 15	(78.050) =	78.050 deg. F
temperature 16	(77.570) =	77.570 deg. F
temperature 17	(77.540) =	77.540 deg. F
temperature 18	(76.600) =	76.600 deg. F
temperature 19	(76.480) =	76.480 deg. F
temperature 20	(75.590) =	75.590 deg. F
temperature 21	(74.800) =	74.800 deg. F
temperature 22	(74.070) =	74.070 deg. F
temperature 23	(72.350) =	72.350 deg. F
temperature 24	(77.240) =	77.240 deg. F
dewpoint 1	(63.580) =	63.580 deg. F , 0.2907 psia
dewpoint 2	(64.170) =	64.170 deg. F , 0.2967 psia
dewpoint 3	(64.070) =	64.070 deg. F , 0.2957 psia
dewpoint 4	(64.360) =	64.360 deg. F , 0.2987 psia
dewpoint 5	(64.510) =	64.510 deg. F , 0.3003 psia
dewpoint 6	(63.430) =	63.430 deg. F , 0.2891 psia
pressure 1	(64.2611) =	64.2611 psia
pressure 2	(64.2607) =	64.2607 psia

weighted averages, volume and air mass

temperature	=	77.46445 deg. F
pressure	=	64.26070 psia
vapor pressure	=	0.29552 psia
volume	=	2649000 cu. ft.
dry air mass	=	851472.5 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 12

time = 1245 date = 221

sensor	raw data	value
temperature 1 (77.990)	=	77.990 deg. F
temperature 2 (78.000)	=	78.000 deg. F
temperature 3 (78.110)	=	78.110 deg. F
temperature 4 (78.080)	=	78.080 deg. F
temperature 5 (78.130)	=	78.130 deg. F
temperature 6 (78.290)	=	78.290 deg. F
temperature 7 (78.000)	=	78.000 deg. F
temperature 8 (78.230)	=	78.230 deg. F
temperature 9 (78.230)	=	78.230 deg. F
temperature 10 (78.170)	=	78.170 deg. F
temperature 11 (78.220)	=	78.220 deg. F
temperature 12 (78.260)	=	78.260 deg. F
temperature 13 (78.030)	=	78.030 deg. F
temperature 14 (77.530)	=	77.530 deg. F
temperature 15 (77.950)	=	77.950 deg. F
temperature 16 (77.440)	=	77.440 deg. F
temperature 17 (77.450)	=	77.450 deg. F
temperature 18 (76.540)	=	76.540 deg. F
temperature 19 (76.450)	=	76.450 deg. F
temperature 20 (75.600)	=	75.600 deg. F
temperature 21 (74.820)	=	74.820 deg. F
temperature 22 (74.090)	=	74.090 deg. F
temperature 23 (72.400)	=	72.400 deg. F
temperature 24 (77.220)	=	77.220 deg. F
dewpoint 1 (63.630)	=	63.630 deg. F , 0.2912 psia
dewpoint 2 (64.080)	=	64.080 deg. F , 0.2958 psia
dewpoint 3 (64.080)	=	64.080 deg. F , 0.2958 psia
dewpoint 4 (64.310)	=	64.310 deg. F , 0.2982 psia
dewpoint 5 (64.450)	=	64.450 deg. F , 0.2996 psia
dewpoint 6 (63.000)	=	63.000 deg. F , 0.2848 psia
pressure 1 (64.2488)	=	64.2488 psia
pressure 2 (64.2487)	=	64.2487 psia

weighted averages, volume and air mass

temperature	=	77.36715 deg. F
pressure	=	64.24870 psia
vapor pressure	=	0.29474 psia
volume	=	2649000 cu. ft.
dry air mass	=	851477.4 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 13

time = 1300 date = 221

sensor		raw data		value	
temperature	1	(77.880)	=	77.880	deg. F
temperature	2	(77.900)	=	77.900	deg. F
temperature	3	(77.980)	=	77.980	deg. F
temperature	4	(77.970)	=	77.970	deg. F
temperature	5	(78.000)	=	78.000	deg. F
temperature	6	(78.150)	=	78.150	deg. F
temperature	7	(77.880)	=	77.880	deg. F
temperature	8	(78.050)	=	78.050	deg. F
temperature	9	(78.110)	=	78.110	deg. F
temperature	10	(78.080)	=	78.080	deg. F
temperature	11	(78.130)	=	78.130	deg. F
temperature	12	(78.140)	=	78.140	deg. F
temperature	13	(77.960)	=	77.960	deg. F
temperature	14	(77.430)	=	77.430	deg. F
temperature	15	(77.860)	=	77.860	deg. F
temperature	16	(77.350)	=	77.350	deg. F
temperature	17	(77.370)	=	77.370	deg. F
temperature	18	(76.480)	=	76.480	deg. F
temperature	19	(76.410)	=	76.410	deg. F
temperature	20	(75.590)	=	75.590	deg. F
temperature	21	(74.840)	=	74.840	deg. F
temperature	22	(74.110)	=	74.110	deg. F
temperature	23	(72.410)	=	72.410	deg. F
temperature	24	(77.190)	=	77.190	deg. F
dewpoint	1	(63.590)	=	63.590	deg. F , 0.2908 psia
dewpoint	2	(64.020)	=	64.020	deg. F , 0.2952 psia
dewpoint	3	(64.040)	=	64.040	deg. F , 0.2954 psia
dewpoint	4	(64.290)	=	64.290	deg. F , 0.2980 psia
dewpoint	5	(64.380)	=	64.380	deg. F , 0.2989 psia
dewpoint	6	(63.550)	=	63.550	deg. F , 0.2904 psia
pressure	1	(64.2376)	=	64.2376	psia
pressure	2	(64.2378)	=	64.2378	psia

weighted averages, volume and air mass

temperature	=	77.27921	deg. F
pressure	=	64.23780	psia
vapor pressure	=	0.29499	psia
volume	=	2649000	cu. ft.
dry air mass	=	851468.4	lbm



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PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 14

time = 1315 date = 221

sensor	raw data	value
temperature 1 (77.760)	=	77.760 deg. F
temperature 2 (77.800)	=	77.800 deg. F
temperature 3 (77.880)	=	77.880 deg. F
temperature 4 (77.840)	=	77.840 deg. F
temperature 5 (77.900)	=	77.900 deg. F
temperature 6 (78.050)	=	78.050 deg. F
temperature 7 (77.770)	=	77.770 deg. F
temperature 8 (77.940)	=	77.940 deg. F
temperature 9 (78.020)	=	78.020 deg. F
temperature 10 (77.930)	=	77.930 deg. F
temperature 11 (78.020)	=	78.020 deg. F
temperature 12 (78.030)	=	78.030 deg. F
temperature 13 (77.860)	=	77.860 deg. F
temperature 14 (77.320)	=	77.320 deg. F
temperature 15 (77.780)	=	77.780 deg. F
temperature 16 (77.270)	=	77.270 deg. F
temperature 17 (77.300)	=	77.300 deg. F
temperature 18 (76.420)	=	76.420 deg. F
temperature 19 (76.380)	=	76.380 deg. F
temperature 20 (75.570)	=	75.570 deg. F
temperature 21 (74.860)	=	74.860 deg. F
temperature 22 (74.130)	=	74.130 deg. F
temperature 23 (72.420)	=	72.420 deg. F
temperature 24 (77.170)	=	77.170 deg. F
dewpoint 1 (63.700)	=	63.700 deg. F , 0.2919 psia
dewpoint 2 (64.050)	=	64.050 deg. F , 0.2955 psia
dewpoint 3 (64.020)	=	64.020 deg. F , 0.2952 psia
dewpoint 4 (64.260)	=	64.260 deg. F , 0.2977 psia
dewpoint 5 (64.350)	=	64.350 deg. F , 0.2986 psia
dewpoint 6 (63.630)	=	63.630 deg. F , 0.2912 psia
pressure 1 (64.2274)	=	64.2274 psia
pressure 2 (64.2277)	=	64.2277 psia

weighted averages, volume and air mass

temperature	=	77.19616 deg. F
pressure	=	64.22770 psia
vapor pressure	=	0.29518 psia
volume	=	2649000 cu. ft.
dry air mass	=	851463.0 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 15

time = 1330 date = 221

sensor	raw data	value
temperature 1	(77.660)	= 77.660 deg. F
temperature 2	(77.710)	= 77.710 deg. F
temperature 3	(77.780)	= 77.780 deg. F
temperature 4	(77.720)	= 77.720 deg. F
temperature 5	(77.800)	= 77.800 deg. F
temperature 6	(77.950)	= 77.950 deg. F
temperature 7	(77.690)	= 77.690 deg. F
temperature 8	(77.830)	= 77.830 deg. F
temperature 9	(77.890)	= 77.890 deg. F
temperature 10	(77.840)	= 77.840 deg. F
temperature 11	(77.940)	= 77.940 deg. F
temperature 12	(77.920)	= 77.920 deg. F
temperature 13	(77.790)	= 77.790 deg. F
temperature 14	(77.230)	= 77.230 deg. F
temperature 15	(77.670)	= 77.670 deg. F
temperature 16	(77.190)	= 77.190 deg. F
temperature 17	(77.230)	= 77.230 deg. F
temperature 18	(76.370)	= 76.370 deg. F
temperature 19	(76.350)	= 76.350 deg. F
temperature 20	(75.560)	= 75.560 deg. F
temperature 21	(74.900)	= 74.900 deg. F
temperature 22	(74.140)	= 74.140 deg. F
temperature 23	(72.440)	= 72.440 deg. F
temperature 24	(77.160)	= 77.160 deg. F
dewpoint 1	(63.490)	= 63.490 deg. F , 0.2897 psia
dewpoint 2	(64.020)	= 64.020 deg. F , 0.2952 psia
dewpoint 3	(63.970)	= 63.970 deg. F , 0.2947 psia
dewpoint 4	(64.210)	= 64.210 deg. F , 0.2971 psia
dewpoint 5	(64.300)	= 64.300 deg. F , 0.2981 psia
dewpoint 6	(63.820)	= 63.820 deg. F , 0.2931 psia
pressure 1	(64.2178)	= 64.2178 psia
pressure 2	(64.2185)	= 64.2185 psia

weighted averages, volume and air mass

temperature	=	77.12129 deg. F
pressure	=	64.21850 psia
vapor pressure	=	0.29474 psia
volume	=	2649000 cu. ft.
dry air mass	=	851465.2 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 16

time = 1345 date = 221

sensor	raw data	value
temperature 1	(77.590)	= 77.590 deg. F
temperature 2	(77.600)	= 77.600 deg. F
temperature 3	(77.670)	= 77.670 deg. F
temperature 4	(77.670)	= 77.670 deg. F
temperature 5	(77.680)	= 77.680 deg. F
temperature 6	(77.850)	= 77.850 deg. F
temperature 7	(77.580)	= 77.580 deg. F
temperature 8	(77.730)	= 77.730 deg. F
temperature 9	(77.810)	= 77.810 deg. F
temperature 10	(77.780)	= 77.780 deg. F
temperature 11	(77.840)	= 77.840 deg. F
temperature 12	(77.830)	= 77.830 deg. F
temperature 13	(77.680)	= 77.680 deg. F
temperature 14	(77.160)	= 77.160 deg. F
temperature 15	(77.600)	= 77.600 deg. F
temperature 16	(77.130)	= 77.130 deg. F
temperature 17	(77.170)	= 77.170 deg. F
temperature 18	(76.320)	= 76.320 deg. F
temperature 19	(76.310)	= 76.310 deg. F
temperature 20	(75.560)	= 75.560 deg. F
temperature 21	(74.910)	= 74.910 deg. F
temperature 22	(74.170)	= 74.170 deg. F
temperature 23	(72.440)	= 72.440 deg. F
temperature 24	(77.120)	= 77.120 deg. F
dewpoint 1	(63.580)	= 63.580 deg. F , 0.2907 psia
dewpoint 2	(64.000)	= 64.000 deg. F , 0.2950 psia
dewpoint 3	(63.970)	= 63.970 deg. F , 0.2947 psia
dewpoint 4	(64.220)	= 64.220 deg. F , 0.2972 psia
dewpoint 5	(64.280)	= 64.280 deg. F , 0.2979 psia
dewpoint 6	(63.700)	= 63.700 deg. F , 0.2919 psia
pressure 1	(64.2089)	= 64.2089 psia
pressure 2	(64.2098)	= 64.2098 psia

weighted averages, volume and air mass

temperature	=	77.05132 deg. F
pressure	=	64.20980 psia
vapor pressure	=	0.29469 psia
volume	=	2649000 cu. ft.
dry air mass	=	851461.0 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 17

time = 1400 date = 221

sensor	raw data	value
temperature 1	(77.500)	= 77.500 deg. F
temperature 2	(77.490)	= 77.490 deg. F
temperature 3	(77.580)	= 77.580 deg. F
temperature 4	(77.570)	= 77.570 deg. F
temperature 5	(77.590)	= 77.590 deg. F
temperature 6	(77.760)	= 77.760 deg. F
temperature 7	(77.480)	= 77.480 deg. F
temperature 8	(77.690)	= 77.690 deg. F
temperature 9	(77.730)	= 77.730 deg. F
temperature 10	(77.710)	= 77.710 deg. F
temperature 11	(77.740)	= 77.740 deg. F
temperature 12	(77.740)	= 77.740 deg. F
temperature 13	(77.600)	= 77.600 deg. F
temperature 14	(77.070)	= 77.070 deg. F
temperature 15	(77.530)	= 77.530 deg. F
temperature 16	(77.090)	= 77.090 deg. F
temperature 17	(77.100)	= 77.100 deg. F
temperature 18	(76.270)	= 76.270 deg. F
temperature 19	(76.270)	= 76.270 deg. F
temperature 20	(75.540)	= 75.540 deg. F
temperature 21	(74.920)	= 74.920 deg. F
temperature 22	(74.180)	= 74.180 deg. F
temperature 23	(72.450)	= 72.450 deg. F
temperature 24	(77.090)	= 77.090 deg. F
dewpoint 1	(63.570)	= 63.570 deg. F , 0.2906 psia
dewpoint 2	(63.990)	= 63.990 deg. F , 0.2949 psia
dewpoint 3	(63.960)	= 63.960 deg. F , 0.2946 psia
dewpoint 4	(64.180)	= 64.180 deg. F , 0.2968 psia
dewpoint 5	(64.260)	= 64.260 deg. F , 0.2977 psia
dewpoint 6	(63.770)	= 63.770 deg. F , 0.2926 psia
pressure 1	(64.2005)	= 64.2005 psia
pressure 2	(64.2016)	= 64.2016 psia

weighted averages, volume and air mass

temperature	=	76.98464 deg. F
pressure	=	64.20160 psia
vapor pressure	=	0.29461 psia
volume	=	2649000 cu. ft.
dry air mass	=	851458.5 lbm



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 18

time = 1415 date = 221

sensor		raw data		value	
temperature	1 (	77.380)	=	77.380 deg.	F
temperature	2 (	77.440)	=	77.440 deg.	F
temperature	3 (	77.540)	=	77.540 deg.	F
temperature	4 (	77.480)	=	77.480 deg.	F
temperature	5 (	77.560)	=	77.560 deg.	F
temperature	6 (	77.720)	=	77.720 deg.	F
temperature	7 (	77.420)	=	77.420 deg.	F
temperature	8 (	77.600)	=	77.600 deg.	F
temperature	9 (	77.630)	=	77.630 deg.	F
temperature	10 (	77.610)	=	77.610 deg.	F
temperature	11 (	77.670)	=	77.670 deg.	F
temperature	12 (	77.650)	=	77.650 deg.	F
temperature	13 (	77.520)	=	77.520 deg.	F
temperature	14 (	77.000)	=	77.000 deg.	F
temperature	15 (	77.460)	=	77.460 deg.	F
temperature	16 (	76.990)	=	76.990 deg.	F
temperature	17 (	77.060)	=	77.060 deg.	F
temperature	18 (	76.230)	=	76.230 deg.	F
temperature	19 (	76.250)	=	76.250 deg.	F
temperature	20 (	75.530)	=	75.530 deg.	F
temperature	21 (	74.920)	=	74.920 deg.	F
temperature	22 (	74.190)	=	74.190 deg.	F
temperature	23 (	72.470)	=	72.470 deg.	F
temperature	24 (	77.070)	=	77.070 deg.	F
dewpoint	1 (	63.540)	=	63.540 deg.	F , 0.2903 psia
dewpoint	2 (	63.910)	=	63.910 deg.	F , 0.2940 psia
dewpoint	3 (	63.900)	=	63.900 deg.	F , 0.2939 psia
dewpoint	4 (	64.140)	=	64.140 deg.	F , 0.2964 psia
dewpoint	5 (	64.220)	=	64.220 deg.	F , 0.2972 psia
dewpoint	6 (	63.730)	=	63.730 deg.	F , 0.2922 psia
pressure	1 (	64.1925)	=	64.1925 psia	
pressure	2 (	64.1937)	=	64.1937 psia	

weighted averages, volume and air mass

temperature	=	76.92667 deg.	F
pressure	=	64.19370 psia	
vapor pressure	=	0.29409 psia	
volume	=	2649000 cu. ft.	
dry air mass	=	851452.2 lbm	



PVNGS UNIT1-1990-ILRT-STABILIZATION

data set 19

time = 1430 date = 221

sensor	raw data	value
temperature 1	(77.340)	= 77.340 deg. F
temperature 2	(77.360)	= 77.360 deg. F
temperature 3	(77.450)	= 77.450 deg. F
temperature 4	(77.410)	= 77.410 deg. F
temperature 5	(77.460)	= 77.460 deg. F
temperature 6	(77.580)	= 77.580 deg. F
temperature 7	(77.320)	= 77.320 deg. F
temperature 8	(77.550)	= 77.550 deg. F
temperature 9	(77.540)	= 77.540 deg. F
temperature 10	(77.550)	= 77.550 deg. F
temperature 11	(77.570)	= 77.570 deg. F
temperature 12	(77.570)	= 77.570 deg. F
temperature 13	(77.450)	= 77.450 deg. F
temperature 14	(76.930)	= 76.930 deg. F
temperature 15	(77.380)	= 77.380 deg. F
temperature 16	(76.980)	= 76.980 deg. F
temperature 17	(76.990)	= 76.990 deg. F
temperature 18	(76.190)	= 76.190 deg. F
temperature 19	(76.220)	= 76.220 deg. F
temperature 20	(75.510)	= 75.510 deg. F
temperature 21	(74.920)	= 74.920 deg. F
temperature 22	(74.200)	= 74.200 deg. F
temperature 23	(72.480)	= 72.480 deg. F
temperature 24	(77.070)	= 77.070 deg. F
dewpoint 1	(63.460)	= 63.460 deg. F , 0.2894 psia
dewpoint 2	(63.900)	= 63.900 deg. F , 0.2939 psia
dewpoint 3	(63.870)	= 63.870 deg. F , 0.2936 psia
dewpoint 4	(64.120)	= 64.120 deg. F , 0.2962 psia
dewpoint 5	(64.190)	= 64.190 deg. F , 0.2969 psia
dewpoint 6	(63.770)	= 63.770 deg. F , 0.2926 psia
pressure 1	(64.1849)	= 64.1849 psia
pressure 2	(64.1861)	= 64.1861 psia

weighted averages, volume and air mass

temperature	=	76.86469 deg. F
pressure	=	64.18610 psia
vapor pressure	=	0.29385 psia
volume	=	2649000 cu. ft.
dry air mass	=	851452.5 lbm



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix III

TYPE A TEST
DATA SET



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	1430	221	76.8647	64.1861	0.2938	851452.4
2	1445	221	76.8157	64.1788	0.2936	851436.3
3	1500	221	76.7502	64.1719	0.2938	851445.8
4	1515	221	76.7085	64.1656	0.2938	851428.4
5	1530	221	76.6545	64.1594	0.2929	851442.5
6	1545	221	76.6117	64.1533	0.2930	851427.9
7	1600	221	76.5616	64.1476	0.2926	851436.8
8	1615	221	76.5228	64.1421	0.2925	851427.1
9	1630	221	76.4765	64.1365	0.2922	851429.6
10	1645	221	76.4390	64.1315	0.2923	851421.5
11	1700	221	76.3959	64.1266	0.2918	851430.9
12	1715	221	76.3700	64.1218	0.2918	851407.5
13	1730	221	76.3341	64.1169	0.2915	851403.1
14	1745	221	76.2917	64.1125	0.2913	851414.8
15	1800	221	76.2570	64.1083	0.2915	851410.6
16	1815	221	76.2241	64.1039	0.2910	851411.3
17	1830	221	76.1933	64.0999	0.2911	851406.2
18	1845	221	76.1568	64.0959	0.2906	851416.7
19	1900	221	76.1332	64.0922	0.2904	851407.3
20	1915	221	76.1024	64.0884	0.2899	851413.1
21	1930	221	76.0760	64.0845	0.2900	851400.9
22	1945	221	76.0466	64.0805	0.2897	851398.3
23	2000	221	76.0166	64.0772	0.2897	851402.3
24	2015	221	75.9929	64.0738	0.2893	851399.4
25	2030	221	75.9664	64.0705	0.2897	851393.3
26	2045	221	75.9398	64.0672	0.2889	851401.9
27	2100	221	75.9164	64.0642	0.2890	851398.0
28	2115	221	75.8886	64.0610	0.2887	851403.3
29	2130	221	75.8722	64.0580	0.2890	851385.1
30	2145	221	75.8402	64.0551	0.2884	851404.9
31	2200	221	75.8295	64.0522	0.2885	851381.7
32	2215	221	75.8119	64.0491	0.2881	851373.4
33	2230	221	75.7769	64.0462	0.2879	851393.2



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 1

time = 1430 date = 221

sensor		raw data	=	value	
temperature	1	(77.340)	=	77.340	deg. F
temperature	2	(77.360)	=	77.360	deg. F
temperature	3	(77.450)	=	77.450	deg. F
temperature	4	(77.410)	=	77.410	deg. F
temperature	5	(77.460)	=	77.460	deg. F
temperature	6	(77.580)	=	77.580	deg. F
temperature	7	(77.320)	=	77.320	deg. F
temperature	8	(77.550)	=	77.550	deg. F
temperature	9	(77.540)	=	77.540	deg. F
temperature	10	(77.550)	=	77.550	deg. F
temperature	11	(77.570)	=	77.570	deg. F
temperature	12	(77.570)	=	77.570	deg. F
temperature	13	(77.450)	=	77.450	deg. F
temperature	14	(76.930)	=	76.930	deg. F
temperature	15	(77.380)	=	77.380	deg. F
temperature	16	(76.980)	=	76.980	deg. F
temperature	17	(76.990)	=	76.990	deg. F
temperature	18	(76.190)	=	76.190	deg. F
temperature	19	(76.220)	=	76.220	deg. F
temperature	20	(75.510)	=	75.510	deg. F
temperature	21	(74.920)	=	74.920	deg. F
temperature	22	(74.200)	=	74.200	deg. F
temperature	23	(72.480)	=	72.480	deg. F
temperature	24	(77.070)	=	77.070	deg. F
dewpoint	1	(63.460)	=	63.460	deg. F , 0.2894 psia
dewpoint	2	(63.900)	=	63.900	deg. F , 0.2939 psia
dewpoint	3	(63.870)	=	63.870	deg. F , 0.2936 psia
dewpoint	4	(64.120)	=	64.120	deg. F , 0.2962 psia
dewpoint	5	(64.190)	=	64.190	deg. F , 0.2969 psia
dewpoint	6	(63.770)	=	63.770	deg. F , 0.2926 psia
pressure	1	(64.1849)	=	64.1849	psia
pressure	2	(64.1861)	=	64.1861	psia

weighted averages, volume and air mass

temperature	=	76.86469	deg. F
pressure	=	64.18610	psia
vapor pressure	=	0.29385	psia
volume	=	2649000	cu. ft.
dry air mass	=	851452.5	lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 2

time = 1445 date = 221

sensor	raw data	value
temperature 1	(77.250) =	77.250 deg. F
temperature 2	(77.280) =	77.280 deg. F
temperature 3	(77.350) =	77.350 deg. F
temperature 4	(77.350) =	77.350 deg. F
temperature 5	(77.410) =	77.410 deg. F
temperature 6	(77.530) =	77.530 deg. F
temperature 7	(77.280) =	77.280 deg. F
temperature 8	(77.460) =	77.460 deg. F
temperature 9	(77.510) =	77.510 deg. F
temperature 10	(77.490) =	77.490 deg. F
temperature 11	(77.500) =	77.500 deg. F
temperature 12	(77.520) =	77.520 deg. F
temperature 13	(77.370) =	77.370 deg. F
temperature 14	(76.870) =	76.870 deg. F
temperature 15	(77.330) =	77.330 deg. F
temperature 16	(76.880) =	76.880 deg. F
temperature 17	(76.960) =	76.960 deg. F
temperature 18	(76.150) =	76.150 deg. F
temperature 19	(76.200) =	76.200 deg. F
temperature 20	(75.510) =	75.510 deg. F
temperature 21	(74.940) =	74.940 deg. F
temperature 22	(74.210) =	74.210 deg. F
temperature 23	(72.490) =	72.490 deg. F
temperature 24	(77.100) =	77.100 deg. F
dewpoint 1	(63.410) =	63.410 deg. F , 0.2889 psia
dewpoint 2	(63.880) =	63.880 deg. F , 0.2937 psia
dewpoint 3	(63.870) =	63.870 deg. F , 0.2936 psia
dewpoint 4	(64.080) =	64.080 deg. F , 0.2958 psia
dewpoint 5	(64.150) =	64.150 deg. F , 0.2965 psia
dewpoint 6	(63.780) =	63.780 deg. F , 0.2927 psia
pressure 1	(64.1775) =	64.1775 psia
pressure 2	(64.1788) =	64.1788 psia

weighted averages, volume and air mass

temperature	=	76.81570 deg. F
pressure	=	64.17880 psia
vapor pressure	=	0.29360 psia
volume	=	2649000 cu. ft.
dry air mass	=	851436.2 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 3

time = 1500 date = 221

sensor		raw data		value	
temperature	1 (77.200)	=	77.200 deg. F		
temperature	2 (77.210)	=	77.210 deg. F		
temperature	3 (77.300)	=	77.300 deg. F		
temperature	4 (77.290)	=	77.290 deg. F		
temperature	5 (77.330)	=	77.330 deg. F		
temperature	6 (77.430)	=	77.430 deg. F		
temperature	7 (77.200)	=	77.200 deg. F		
temperature	8 (77.370)	=	77.370 deg. F		
temperature	9 (77.390)	=	77.390 deg. F		
temperature	10 (77.370)	=	77.370 deg. F		
temperature	11 (77.420)	=	77.420 deg. F		
temperature	12 (77.440)	=	77.440 deg. F		
temperature	13 (77.300)	=	77.300 deg. F		
temperature	14 (76.800)	=	76.800 deg. F		
temperature	15 (77.260)	=	77.260 deg. F		
temperature	16 (76.800)	=	76.800 deg. F		
temperature	17 (76.880)	=	76.880 deg. F		
temperature	18 (76.110)	=	76.110 deg. F		
temperature	19 (76.170)	=	76.170 deg. F		
temperature	20 (75.490)	=	75.490 deg. F		
temperature	21 (74.940)	=	74.940 deg. F		
temperature	22 (74.210)	=	74.210 deg. F		
temperature	23 (72.500)	=	72.500 deg. F		
temperature	24 (77.070)	=	77.070 deg. F		
dewpoint	1 (63.630)	=	63.630 deg. F	0.2912	psia
dewpoint	2 (63.850)	=	63.850 deg. F	0.2934	psia
dewpoint	3 (63.830)	=	63.830 deg. F	0.2932	psia
dewpoint	4 (64.080)	=	64.080 deg. F	0.2958	psia
dewpoint	5 (64.130)	=	64.130 deg. F	0.2963	psia
dewpoint	6 (63.770)	=	63.770 deg. F	0.2926	psia
pressure	1 (64.1703)	=	64.1703 psia		
pressure	2 (64.1719)	=	64.1719 psia		

weighted averages, volume and air mass

temperature	=	76.75024 deg. F
pressure	=	64.17190 psia
vapor pressure	=	0.29378 psia
volume	=	2649000 cu. ft.
dry air mass	=	851445.8 lbm

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 4

time = 1515 date = 221

sensor	raw data	value
temperature 1	(77.130)	= 77.130 deg. F
temperature 2	(77.140)	= 77.140 deg. F
temperature 3	(77.230)	= 77.230 deg. F
temperature 4	(77.210)	= 77.210 deg. F
temperature 5	(77.290)	= 77.290 deg. F
temperature 6	(77.390)	= 77.390 deg. F
temperature 7	(77.110)	= 77.110 deg. F
temperature 8	(77.310)	= 77.310 deg. F
temperature 9	(77.380)	= 77.380 deg. F
temperature 10	(77.310)	= 77.310 deg. F
temperature 11	(77.410)	= 77.410 deg. F
temperature 12	(77.360)	= 77.360 deg. F
temperature 13	(77.240)	= 77.240 deg. F
temperature 14	(76.750)	= 76.750 deg. F
temperature 15	(77.190)	= 77.190 deg. F
temperature 16	(76.790)	= 76.790 deg. F
temperature 17	(76.860)	= 76.860 deg. F
temperature 18	(76.090)	= 76.090 deg. F
temperature 19	(76.140)	= 76.140 deg. F
temperature 20	(75.490)	= 75.490 deg. F
temperature 21	(74.950)	= 74.950 deg. F
temperature 22	(74.230)	= 74.230 deg. F
temperature 23	(72.510)	= 72.510 deg. F
temperature 24	(77.020)	= 77.020 deg. F
dewpoint 1	(63.730)	= 63.730 deg. F , 0.2922 psia
dewpoint 2	(63.840)	= 63.840 deg. F , 0.2933 psia
dewpoint 3	(63.820)	= 63.820 deg. F , 0.2931 psia
dewpoint 4	(64.050)	= 64.050 deg. F , 0.2955 psia
dewpoint 5	(64.090)	= 64.090 deg. F , 0.2959 psia
dewpoint 6	(63.750)	= 63.750 deg. F , 0.2924 psia
pressure 1	(64.1640)	= 64.1640 psia
pressure 2	(64.1656)	= 64.1656 psia

weighted averages, volume and air mass

temperature	=	76.70847 deg. F
pressure	=	64.16560 psia
vapor pressure	=	0.29376 psia
volume	=	2649000 cu. ft.
dry air mass	=	851428.4 lbm

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 5

time = 1530 date = 221

sensor		raw data		value	
temperature	1	(77.070)	=	77.070	deg. F
temperature	2	(77.090)	=	77.090	deg. F
temperature	3	(77.150)	=	77.150	deg. F
temperature	4	(77.150)	=	77.150	deg. F
temperature	5	(77.200)	=	77.200	deg. F
temperature	6	(77.330)	=	77.330	deg. F
temperature	7	(77.040)	=	77.040	deg. F
temperature	8	(77.230)	=	77.230	deg. F
temperature	9	(77.280)	=	77.280	deg. F
temperature	10	(77.270)	=	77.270	deg. F
temperature	11	(77.360)	=	77.360	deg. F
temperature	12	(77.300)	=	77.300	deg. F
temperature	13	(77.160)	=	77.160	deg. F
temperature	14	(76.670)	=	76.670	deg. F
temperature	15	(77.140)	=	77.140	deg. F
temperature	16	(76.750)	=	76.750	deg. F
temperature	17	(76.800)	=	76.800	deg. F
temperature	18	(76.040)	=	76.040	deg. F
temperature	19	(76.110)	=	76.110	deg. F
temperature	20	(75.470)	=	75.470	deg. F
temperature	21	(74.950)	=	74.950	deg. F
temperature	22	(74.240)	=	74.240	deg. F
temperature	23	(72.520)	=	72.520	deg. F
temperature	24	(76.990)	=	76.990	deg. F
dewpoint	1	(63.330)	=	63.330	deg. F , 0.2881 psia
dewpoint	2	(63.820)	=	63.820	deg. F , 0.2931 psia
dewpoint	3	(63.790)	=	63.790	deg. F , 0.2928 psia
dewpoint	4	(64.010)	=	64.010	deg. F , 0.2951 psia
dewpoint	5	(64.080)	=	64.080	deg. F , 0.2958 psia
dewpoint	6	(63.760)	=	63.760	deg. F , 0.2925 psia
pressure	1	(64.1579)	=	64.1579	psia
pressure	2	(64.1594)	=	64.1594	psia

weighted averages, volume and air mass

temperature	=	76.65454 deg. F
pressure	=	64.15940 psia
vapor pressure	=	0.29292 psia
volume	=	2649000 cu. ft.
dry air mass	=	851442.5 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 6

time = 1545 date = 221

sensor		raw data		value	
temperature	1 (	77.000)	=	77.000 deg. F	
temperature	2 (	77.040)	=	77.040 deg. F	
temperature	3 (	77.110)	=	77.110 deg. F	
temperature	4 (	77.100)	=	77.100 deg. F	
temperature	5 (	77.160)	=	77.160 deg. F	
temperature	6 (	77.270)	=	77.270 deg. F	
temperature	7 (	77.030)	=	77.030 deg. F	
temperature	8 (	77.200)	=	77.200 deg. F	
temperature	9 (	77.230)	=	77.230 deg. F	
temperature	10 (	77.220)	=	77.220 deg. F	
temperature	11 (	77.270)	=	77.270 deg. F	
temperature	12 (	77.250)	=	77.250 deg. F	
temperature	13 (	77.130)	=	77.130 deg. F	
temperature	14 (	76.610)	=	76.610 deg. F	
temperature	15 (	77.080)	=	77.080 deg. F	
temperature	16 (	76.620)	=	76.620 deg. F	
temperature	17 (	76.770)	=	76.770 deg. F	
temperature	18 (	76.010)	=	76.010 deg. F	
temperature	19 (	76.090)	=	76.090 deg. F	
temperature	20 (	75.470)	=	75.470 deg. F	
temperature	21 (	74.940)	=	74.940 deg. F	
temperature	22 (	74.240)	=	74.240 deg. F	
temperature	23 (	72.550)	=	72.550 deg. F	
temperature	24 (	76.930)	=	76.930 deg. F	
dewpoint	1 (	63.420)	=	63.420 deg. F	0.2890 psia
dewpoint	2 (	63.830)	=	63.830 deg. F	0.2932 psia
dewpoint	3 (	63.800)	=	63.800 deg. F	0.2929 psia
dewpoint	4 (	64.000)	=	64.000 deg. F	0.2950 psia
dewpoint	5 (	64.050)	=	64.050 deg. F	0.2955 psia
dewpoint	6 (	63.740)	=	63.740 deg. F	0.2923 psia
pressure	1 (	64.1518)	=	64.1518 psia	
pressure	2 (	64.1533)	=	64.1533 psia	

weighted averages, volume and air mass

temperature	=	76.61167 deg. F
pressure	=	64.15330 psia
vapor pressure	=	0.29302 psia
volume	=	2649000 cu. ft.
dry air mass	=	851427.9 lbm

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 7

time = 1600 date = 221

sensor		raw data	=	value	
temperature	1	(76.950)	=	76.950	deg. F
temperature	2	(76.970)	=	76.970	deg. F
temperature	3	(77.040)	=	77.040	deg. F
temperature	4	(77.010)	=	77.010	deg. F
temperature	5	(77.080)	=	77.080	deg. F
temperature	6	(77.200)	=	77.200	deg. F
temperature	7	(76.980)	=	76.980	deg. F
temperature	8	(77.110)	=	77.110	deg. F
temperature	9	(77.190)	=	77.190	deg. F
temperature	10	(77.160)	=	77.160	deg. F
temperature	11	(77.200)	=	77.200	deg. F
temperature	12	(77.200)	=	77.200	deg. F
temperature	13	(77.040)	=	77.040	deg. F
temperature	14	(76.570)	=	76.570	deg. F
temperature	15	(77.030)	=	77.030	deg. F
temperature	16	(76.600)	=	76.600	deg. F
temperature	17	(76.700)	=	76.700	deg. F
temperature	18	(75.990)	=	75.990	deg. F
temperature	19	(76.060)	=	76.060	deg. F
temperature	20	(75.450)	=	75.450	deg. F
temperature	21	(74.950)	=	74.950	deg. F
temperature	22	(74.250)	=	74.250	deg. F
temperature	23	(72.560)	=	72.560	deg. F
temperature	24	(76.910)	=	76.910	deg. F
dewpoint	1	(63.270)	=	63.270	deg. F , 0.2875 psia
dewpoint	2	(63.840)	=	63.840	deg. F , 0.2933 psia
dewpoint	3	(63.770)	=	63.770	deg. F , 0.2926 psia
dewpoint	4	(63.980)	=	63.980	deg. F , 0.2948 psia
dewpoint	5	(64.020)	=	64.020	deg. F , 0.2952 psia
dewpoint	6	(63.710)	=	63.710	deg. F , 0.2920 psia
pressure	1	(64.1461)	=	64.1461	psia
pressure	2	(64.1476)	=	64.1476	psia

weighted averages, volume and air mass

temperature	=	76.56162 deg. F
pressure	=	64.14760 psia
vapor pressure	=	0.29262 psia
volume	=	2649000 cu. ft.
dry air mass	=	851436.7 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 8

time = 1615 date = 221

sensor		raw data		value
temperature	1 (	76.890)	=	76.890 deg. F
temperature	2 (	76.900)	=	76.900 deg. F
temperature	3 (	77.000)	=	77.000 deg. F
temperature	4 (	76.970)	=	76.970 deg. F
temperature	5 (	77.030)	=	77.030 deg. F
temperature	6 (	77.180)	=	77.180 deg. F
temperature	7 (	76.930)	=	76.930 deg. F
temperature	8 (	77.060)	=	77.060 deg. F
temperature	9 (	77.130)	=	77.130 deg. F
temperature	10 (	77.080)	=	77.080 deg. F
temperature	11 (	77.160)	=	77.160 deg. F
temperature	12 (	77.180)	=	77.180 deg. F
temperature	13 (	76.990)	=	76.990 deg. F
temperature	14 (	76.520)	=	76.520 deg. F
temperature	15 (	76.980)	=	76.980 deg. F
temperature	16 (	76.580)	=	76.580 deg. F
temperature	17 (	76.670)	=	76.670 deg. F
temperature	18 (	75.940)	=	75.940 deg. F
temperature	19 (	76.040)	=	76.040 deg. F
temperature	20 (	75.420)	=	75.420 deg. F
temperature	21 (	74.960)	=	74.960 deg. F
temperature	22 (	74.260)	=	74.260 deg. F
temperature	23 (	72.570)	=	72.570 deg. F
temperature	24 (	76.860)	=	76.860 deg. F
dewpoint	1 (	63.220)	=	63.220 deg. F , 0.2870 psia
dewpoint	2 (	63.740)	=	63.740 deg. F , 0.2923 psia
dewpoint	3 (	63.740)	=	63.740 deg. F , 0.2923 psia
dewpoint	4 (	63.950)	=	63.950 deg. F , 0.2944 psia
dewpoint	5 (	64.010)	=	64.010 deg. F , 0.2951 psia
dewpoint	6 (	63.920)	=	63.920 deg. F , 0.2941 psia
pressure	1 (	64.1405)	=	64.1405 psia
pressure	2 (	64.1421)	=	64.1421 psia

weighted averages, volume and air mass

temperature	=	76.52284 deg. F
pressure	=	64.14210 psia
vapor pressure	=	0.29246 psia
volume	=	2649000 cu. ft.
dry air mass	=	851427.0 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 9

time = 1630 date = 221

sensor		raw data		value	
temperature	1 (	76.850	) =	76.850 deg. F	
temperature	2 (	76.870	) =	76.870 deg. F	
temperature	3 (	76.910	) =	76.910 deg. F	
temperature	4 (	76.910	) =	76.910 deg. F	
temperature	5 (	76.940	) =	76.940 deg. F	
temperature	6 (	77.100	) =	77.100 deg. F	
temperature	7 (	76.870	) =	76.870 deg. F	
temperature	8 (	77.020	) =	77.020 deg. F	
temperature	9 (	77.050	) =	77.050 deg. F	
temperature	10 (	77.050	) =	77.050 deg. F	
temperature	11 (	77.120	) =	77.120 deg. F	
temperature	12 (	77.110	) =	77.110 deg. F	
temperature	13 (	76.930	) =	76.930 deg. F	
temperature	14 (	76.470	) =	76.470 deg. F	
temperature	15 (	76.940	) =	76.940 deg. F	
temperature	16 (	76.550	) =	76.550 deg. F	
temperature	17 (	76.620	) =	76.620 deg. F	
temperature	18 (	75.920	) =	75.920 deg. F	
temperature	19 (	76.010	) =	76.010 deg. F	
temperature	20 (	75.400	) =	75.400 deg. F	
temperature	21 (	74.950	) =	74.950 deg. F	
temperature	22 (	74.260	) =	74.260 deg. F	
temperature	23 (	72.580	) =	72.580 deg. F	
temperature	24 (	76.820	) =	76.820 deg. F	
dewpoint	1 (	63.280	) =	63.280 deg. F	, 0.2876 psia
dewpoint	2 (	63.740	) =	63.740 deg. F	, 0.2923 psia
dewpoint	3 (	63.730	) =	63.730 deg. F	, 0.2922 psia
dewpoint	4 (	63.930	) =	63.930 deg. F	, 0.2942 psia
dewpoint	5 (	63.980	) =	63.980 deg. F	, 0.2948 psia
dewpoint	6 (	63.700	) =	63.700 deg. F	, 0.2919 psia
pressure	1 (	64.1352	) =	64.1352 psia	
pressure	2 (	64.1365	) =	64.1365 psia	

weighted averages, volume and air mass

temperature	=	76.47653 deg. F
pressure	=	64.13650 psia
vapor pressure	=	0.29219 psia
volume	=	2649000 cu. ft.
dry air mass	=	851429.6 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 10

time = 1645 date = 221

sensor		raw data		value	
temperature	1 (76.810)	=	76.810 deg. F		
temperature	2 (76.820)	=	76.820 deg. F		
temperature	3 (76.870)	=	76.870 deg. F		
temperature	4 (76.890)	=	76.890 deg. F		
temperature	5 (76.890)	=	76.890 deg. F		
temperature	6 (77.070)	=	77.070 deg. F		
temperature	7 (76.810)	=	76.810 deg. F		
temperature	8 (76.960)	=	76.960 deg. F		
temperature	9 (77.050)	=	77.050 deg. F		
temperature	10 (77.020)	=	77.020 deg. F		
temperature	11 (77.030)	=	77.030 deg. F		
temperature	12 (77.050)	=	77.050 deg. F		
temperature	13 (76.890)	=	76.890 deg. F		
temperature	14 (76.420)	=	76.420 deg. F		
temperature	15 (76.890)	=	76.890 deg. F		
temperature	16 (76.490)	=	76.490 deg. F		
temperature	17 (76.590)	=	76.590 deg. F		
temperature	18 (75.880)	=	75.880 deg. F		
temperature	19 (75.980)	=	75.980 deg. F		
temperature	20 (75.400)	=	75.400 deg. F		
temperature	21 (74.950)	=	74.950 deg. F		
temperature	22 (74.270)	=	74.270 deg. F		
temperature	23 (72.580)	=	72.580 deg. F		
temperature	24 (76.790)	=	76.790 deg. F		
dewpoint	1 (63.440)	=	63.440 deg. F	0.2892	psia
dewpoint	2 (63.690)	=	63.690 deg. F	0.2918	psia
dewpoint	3 (63.710)	=	63.710 deg. F	0.2920	psia
dewpoint	4 (63.920)	=	63.920 deg. F	0.2941	psia
dewpoint	5 (63.960)	=	63.960 deg. F	0.2946	psia
dewpoint	6 (63.700)	=	63.700 deg. F	0.2919	psia
pressure	1 (64.1300)	=	64.1300 psia		
pressure	2 (64.1315)	=	64.1315 psia		

weighted averages, volume and air mass

temperature	=	76.43905 deg. F
pressure	=	64.13150 psia
vapor pressure	=	0.29226 psia
volume	=	2649000 cu. ft.
dry air mass	=	851421.5 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 11

time = 1700 date = 221

sensor		raw data		value	
temperature	1 (	76.740	) =	76.740 deg.	F
temperature	2 (	76.750	) =	76.750 deg.	F
temperature	3 (	76.830	) =	76.830 deg.	F
temperature	4 (	76.790	) =	76.790 deg.	F
temperature	5 (	76.880	) =	76.880 deg.	F
temperature	6 (	76.960	) =	76.960 deg.	F
temperature	7 (	76.780	) =	76.780 deg.	F
temperature	8 (	76.920	) =	76.920 deg.	F
temperature	9 (	77.000	) =	77.000 deg.	F
temperature	10 (	76.930	) =	76.930 deg.	F
temperature	11 (	76.980	) =	76.980 deg.	F
temperature	12 (	76.980	) =	76.980 deg.	F
temperature	13 (	76.860	) =	76.860 deg.	F
temperature	14 (	76.380	) =	76.380 deg.	F
temperature	15 (	76.850	) =	76.850 deg.	F
temperature	16 (	76.460	) =	76.460 deg.	F
temperature	17 (	76.600	) =	76.600 deg.	F
temperature	18 (	75.850	) =	75.850 deg.	F
temperature	19 (	75.960	) =	75.960 deg.	F
temperature	20 (	75.380	) =	75.380 deg.	F
temperature	21 (	74.940	) =	74.940 deg.	F
temperature	22 (	74.270	) =	74.270 deg.	F
temperature	23 (	72.590	) =	72.590 deg.	F
temperature	24 (	76.730	) =	76.730 deg.	F
dewpoint	1 (	63.310	) =	63.310 deg.	F , 0.2879 psia
dewpoint	2 (	63.730	) =	63.730 deg.	F , 0.2922 psia
dewpoint	3 (	63.670	) =	63.670 deg.	F , 0.2916 psia
dewpoint	4 (	63.870	) =	63.870 deg.	F , 0.2936 psia
dewpoint	5 (	63.940	) =	63.940 deg.	F , 0.2943 psia
dewpoint	6 (	63.590	) =	63.590 deg.	F , 0.2908 psia
pressure	1 (	64.1251	) =	64.1251	psia
pressure	2 (	64.1266	) =	64.1266	psia

weighted averages, volume and air mass

temperature	=	76.39591 deg.	F
pressure	=	64.12660	psia
vapor pressure	=	0.29179	psia
volume	=	2649000	cu. ft.
dry air mass	=	851430.9	lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 12

time = 1715 date = 221

sensor	raw data	value
temperature 1	(76.700) =	76.700 deg. F
temperature 2	(76.720) =	76.720 deg. F
temperature 3	(76.790) =	76.790 deg. F
temperature 4	(76.820) =	76.820 deg. F
temperature 5	(76.840) =	76.840 deg. F
temperature 6	(76.960) =	76.960 deg. F
temperature 7	(76.700) =	76.700 deg. F
temperature 8	(76.890) =	76.890 deg. F
temperature 9	(76.940) =	76.940 deg. F
temperature 10	(76.920) =	76.920 deg. F
temperature 11	(76.980) =	76.980 deg. F
temperature 12	(76.990) =	76.990 deg. F
temperature 13	(76.800) =	76.800 deg. F
temperature 14	(76.330) =	76.330 deg. F
temperature 15	(76.800) =	76.800 deg. F
temperature 16	(76.440) =	76.440 deg. F
temperature 17	(76.520) =	76.520 deg. F
temperature 18	(75.830) =	75.830 deg. F
temperature 19	(75.950) =	75.950 deg. F
temperature 20	(75.370) =	75.370 deg. F
temperature 21	(74.930) =	74.930 deg. F
temperature 22	(74.270) =	74.270 deg. F
temperature 23	(72.610) =	72.610 deg. F
temperature 24	(76.700) =	76.700 deg. F
dewpoint 1	(63.470) =	63.470 deg. F , 0.2895 psia
dewpoint 2	(63.660) =	63.660 deg. F , 0.2915 psia
dewpoint 3	(63.670) =	63.670 deg. F , 0.2916 psia
dewpoint 4	(63.870) =	63.870 deg. F , 0.2936 psia
dewpoint 5	(63.900) =	63.900 deg. F , 0.2939 psia
dewpoint 6	(63.570) =	63.570 deg. F , 0.2906 psia
pressure 1	(64.1206) =	64.1206 psia
pressure 2	(64.1218) =	64.1218 psia

weighted averages, volume and air mass

temperature	=	76.37003 deg. F
pressure	=	64.12180 psia
vapor pressure	=	0.29183 psia
volume	=	2649000 cu. ft.
dry air mass	=	851407.5 lbm

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 13

time = 1730 date = 221

sensor		raw data		value
temperature	1 (	76.650)	=	76.650 deg. F
temperature	2 (	76.690)	=	76.690 deg. F
temperature	3 (	76.770)	=	76.770 deg. F
temperature	4 (	76.730)	=	76.730 deg. F
temperature	5 (	76.780)	=	76.780 deg. F
temperature	6 (	76.910)	=	76.910 deg. F
temperature	7 (	76.670)	=	76.670 deg. F
temperature	8 (	76.860)	=	76.860 deg. F
temperature	9 (	76.910)	=	76.910 deg. F
temperature	10 (	76.880)	=	76.880 deg. F
temperature	11 (	76.920)	=	76.920 deg. F
temperature	12 (	76.920)	=	76.920 deg. F
temperature	13 (	76.760)	=	76.760 deg. F
temperature	14 (	76.290)	=	76.290 deg. F
temperature	15 (	76.770)	=	76.770 deg. F
temperature	16 (	76.410)	=	76.410 deg. F
temperature	17 (	76.490)	=	76.490 deg. F
temperature	18 (	75.810)	=	75.810 deg. F
temperature	19 (	75.920)	=	75.920 deg. F
temperature	20 (	75.350)	=	75.350 deg. F
temperature	21 (	74.940)	=	74.940 deg. F
temperature	22 (	74.280)	=	74.280 deg. F
temperature	23 (	72.610)	=	72.610 deg. F
temperature	24 (	76.660)	=	76.660 deg. F
dewpoint	1 (	63.360)	=	63.360 deg. F , 0.2884 psia
dewpoint	2 (	63.630)	=	63.630 deg. F , 0.2912 psia
dewpoint	3 (	63.650)	=	63.650 deg. F , 0.2914 psia
dewpoint	4 (	63.840)	=	63.840 deg. F , 0.2933 psia
dewpoint	5 (	63.880)	=	63.880 deg. F , 0.2937 psia
dewpoint	6 (	63.630)	=	63.630 deg. F , 0.2912 psia
pressure	1 (	64.1157)	=	64.1157 psia
pressure	2 (	64.1169)	=	64.1169 psia

weighted averages, volume and air mass

temperature	=	76.33407 deg. F
pressure	=	64.11690 psia
vapor pressure	=	0.29153 psia
volume	=	2649000 cu. ft.
dry air mass	=	851403.1 lbm



FVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 14

time = 1745 date = 221

sensor	raw data	value
temperature 1	(76.610)	= 76.610 deg. F
temperature 2	(76.640)	= 76.640 deg. F
temperature 3	(76.700)	= 76.700 deg. F
temperature 4	(76.700)	= 76.700 deg. F
temperature 5	(76.730)	= 76.730 deg. F
temperature 6	(76.840)	= 76.840 deg. F
temperature 7	(76.630)	= 76.630 deg. F
temperature 8	(76.760)	= 76.760 deg. F
temperature 9	(76.860)	= 76.860 deg. F
temperature 10	(76.860)	= 76.860 deg. F
temperature 11	(76.890)	= 76.890 deg. F
temperature 12	(76.850)	= 76.850 deg. F
temperature 13	(76.720)	= 76.720 deg. F
temperature 14	(76.240)	= 76.240 deg. F
temperature 15	(76.730)	= 76.730 deg. F
temperature 16	(76.330)	= 76.330 deg. F
temperature 17	(76.450)	= 76.450 deg. F
temperature 18	(75.800)	= 75.800 deg. F
temperature 19	(75.890)	= 75.890 deg. F
temperature 20	(75.340)	= 75.340 deg. F
temperature 21	(74.920)	= 74.920 deg. F
temperature 22	(74.280)	= 74.280 deg. F
temperature 23	(72.620)	= 72.620 deg. F
temperature 24	(76.630)	= 76.630 deg. F
dewpoint 1	(63.290)	= 63.290 deg. F , 0.2877 psia
dewpoint 2	(63.690)	= 63.690 deg. F , 0.2918 psia
dewpoint 3	(63.640)	= 63.640 deg. F , 0.2913 psia
dewpoint 4	(63.830)	= 63.830 deg. F , 0.2932 psia
dewpoint 5	(63.840)	= 63.840 deg. F , 0.2933 psia
dewpoint 6	(63.520)	= 63.520 deg. F , 0.2900 psia
pressure 1	(64.1112)	= 64.1112 psia
pressure 2	(64.1125)	= 64.1125 psia

weighted averages, volume and air mass

temperature	=	76.29172 deg. F
pressure	=	64.11250 psia
vapor pressure	=	0.29131 psia
volume	=	2649000 cu. ft.
dry air mass	=	851414.8 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 15

time = 1800 date = 221

sensor	raw data	value
temperature 1	(76.560) =	76.560 deg. F
temperature 2	(76.610) =	76.610 deg. F
temperature 3	(76.680) =	76.680 deg. F
temperature 4	(76.640) =	76.640 deg. F
temperature 5	(76.720) =	76.720 deg. F
temperature 6	(76.790) =	76.790 deg. F
temperature 7	(76.580) =	76.580 deg. F
temperature 8	(76.760) =	76.760 deg. F
temperature 9	(76.810) =	76.810 deg. F
temperature 10	(76.790) =	76.790 deg. F
temperature 11	(76.830) =	76.830 deg. F
temperature 12	(76.850) =	76.850 deg. F
temperature 13	(76.660) =	76.660 deg. F
temperature 14	(76.210) =	76.210 deg. F
temperature 15	(76.680) =	76.680 deg. F
temperature 16	(76.290) =	76.290 deg. F
temperature 17	(76.420) =	76.420 deg. F
temperature 18	(75.750) =	75.750 deg. F
temperature 19	(75.860) =	75.860 deg. F
temperature 20	(75.310) =	75.310 deg. F
temperature 21	(74.920) =	74.920 deg. F
temperature 22	(74.280) =	74.280 deg. F
temperature 23	(72.620) =	72.620 deg. F
temperature 24	(76.590) =	76.590 deg. F
dewpoint 1	(63.500) =	63.500 deg. F , 0.2898 psia
dewpoint 2	(63.640) =	63.640 deg. F , 0.2913 psia
dewpoint 3	(63.630) =	63.630 deg. F , 0.2912 psia
dewpoint 4	(63.810) =	63.810 deg. F , 0.2930 psia
dewpoint 5	(63.830) =	63.830 deg. F , 0.2932 psia
dewpoint 6	(63.580) =	63.580 deg. F , 0.2907 psia
pressure 1	(64.1069) =	64.1069 psia
pressure 2	(64.1083) =	64.1083 psia

weighted averages, volume and air mass

temperature	=	76.25703 deg. F
pressure	=	64.10830 psia
vapor pressure	=	0.29155 psia
volume	=	2649000 cu. ft.
dry air mass	=	851410.6 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 16

time = 1815 date = 221

sensor	raw data	value
temperature 1	(76.530) =	76.530 deg. F
temperature 2	(76.560) =	76.560 deg. F
temperature 3	(76.610) =	76.610 deg. F
temperature 4	(76.590) =	76.590 deg. F
temperature 5	(76.670) =	76.670 deg. F
temperature 6	(76.780) =	76.780 deg. F
temperature 7	(76.530) =	76.530 deg. F
temperature 8	(76.690) =	76.690 deg. F
temperature 9	(76.750) =	76.750 deg. F
temperature 10	(76.750) =	76.750 deg. F
temperature 11	(76.800) =	76.800 deg. F
temperature 12	(76.800) =	76.800 deg. F
temperature 13	(76.620) =	76.620 deg. F
temperature 14	(76.170) =	76.170 deg. F
temperature 15	(76.680) =	76.680 deg. F
temperature 16	(76.260) =	76.260 deg. F
temperature 17	(76.410) =	76.410 deg. F
temperature 18	(75.720) =	75.720 deg. F
temperature 19	(75.850) =	75.850 deg. F
temperature 20	(75.300) =	75.300 deg. F
temperature 21	(74.910) =	74.910 deg. F
temperature 22	(74.280) =	74.280 deg. F
temperature 23	(72.650) =	72.650 deg. F
temperature 24	(76.560) =	76.560 deg. F
dewpoint 1	(63.270) =	63.270 deg. F , 0.2875 psia
dewpoint 2	(63.600) =	63.600 deg. F , 0.2909 psia
dewpoint 3	(63.610) =	63.610 deg. F , 0.2910 psia
dewpoint 4	(63.790) =	63.790 deg. F , 0.2928 psia
dewpoint 5	(63.830) =	63.830 deg. F , 0.2932 psia
dewpoint 6	(63.580) =	63.580 deg. F , 0.2907 psia
pressure 1	(64.1026) =	64.1026 psia
pressure 2	(64.1039) =	64.1039 psia

weighted averages, volume and air mass

temperature	=	76.22411 deg. F
pressure	=	64.10390 psia
vapor pressure	=	0.29102 psia
volume	=	2649000 cu. ft.
dry air mass	=	851411.2 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 17

time = 1830 date = 221

sensor	raw data	value
temperature 1	(76.510) =	76.510 deg. F
temperature 2	(76.510) =	76.510 deg. F
temperature 3	(76.590) =	76.590 deg. F
temperature 4	(76.590) =	76.590 deg. F
temperature 5	(76.620) =	76.620 deg. F
temperature 6	(76.730) =	76.730 deg. F
temperature 7	(76.500) =	76.500 deg. F
temperature 8	(76.650) =	76.650 deg. F
temperature 9	(76.740) =	76.740 deg. F
temperature 10	(76.720) =	76.720 deg. F
temperature 11	(76.750) =	76.750 deg. F
temperature 12	(76.760) =	76.760 deg. F
temperature 13	(76.590) =	76.590 deg. F
temperature 14	(76.130) =	76.130 deg. F
temperature 15	(76.630) =	76.630 deg. F
temperature 16	(76.210) =	76.210 deg. F
temperature 17	(76.350) =	76.350 deg. F
temperature 18	(75.710) =	75.710 deg. F
temperature 19	(75.820) =	75.820 deg. F
temperature 20	(75.280) =	75.280 deg. F
temperature 21	(74.910) =	74.910 deg. F
temperature 22	(74.280) =	74.280 deg. F
temperature 23	(72.650) =	72.650 deg. F
temperature 24	(76.530) =	76.530 deg. F
dewpoint 1	(63.330) =	63.330 deg. F , 0.2881 psia
dewpoint 2	(63.580) =	63.580 deg. F , 0.2907 psia
dewpoint 3	(63.560) =	63.560 deg. F , 0.2905 psia
dewpoint 4	(63.770) =	63.770 deg. F , 0.2926 psia
dewpoint 5	(63.790) =	63.790 deg. F , 0.2928 psia
dewpoint 6	(63.730) =	63.730 deg. F , 0.2922 psia
pressure 1	(64.0987) =	64.0987 psia
pressure 2	(64.0999) =	64.0999 psia

weighted averages, volume and air mass

temperature	=	76.19334 deg. F
pressure	=	64.09990 psia
vapor pressure	=	0.29106 psia
volume	=	2649000 cu. ft.
dry air mass	=	851406.2 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 18

time = 1845 date = 221

sensor		raw data	=	value	
temperature	1 (	76.450)	=	76.450 deg. F	
temperature	2 (	76.480)	=	76.480 deg. F	
temperature	3 (	76.550)	=	76.550 deg. F	
temperature	4 (	76.490)	=	76.490 deg. F	
temperature	5 (	76.590)	=	76.590 deg. F	
temperature	6 (	76.680)	=	76.680 deg. F	
temperature	7 (	76.470)	=	76.470 deg. F	
temperature	8 (	76.610)	=	76.610 deg. F	
temperature	9 (	76.700)	=	76.700 deg. F	
temperature	10 (	76.630)	=	76.630 deg. F	
temperature	11 (	76.740)	=	76.740 deg. F	
temperature	12 (	76.750)	=	76.750 deg. F	
temperature	13 (	76.540)	=	76.540 deg. F	
temperature	14 (	76.090)	=	76.090 deg. F	
temperature	15 (	76.580)	=	76.580 deg. F	
temperature	16 (	76.140)	=	76.140 deg. F	
temperature	17 (	76.340)	=	76.340 deg. F	
temperature	18 (	75.690)	=	75.690 deg. F	
temperature	19 (	75.800)	=	75.800 deg. F	
temperature	20 (	75.280)	=	75.280 deg. F	
temperature	21 (	74.900)	=	74.900 deg. F	
temperature	22 (	74.270)	=	74.270 deg. F	
temperature	23 (	72.660)	=	72.660 deg. F	
temperature	24 (	76.490)	=	76.490 deg. F	
dewpoint	1 (	63.270)	=	63.270 deg. F	, 0.2875 psia
dewpoint	2 (	63.600)	=	63.600 deg. F	, 0.2909 psia
dewpoint	3 (	63.540)	=	63.540 deg. F	, 0.2903 psia
dewpoint	4 (	63.740)	=	63.740 deg. F	, 0.2923 psia
dewpoint	5 (	63.780)	=	63.780 deg. F	, 0.2927 psia
dewpoint	6 (	63.520)	=	63.520 deg. F	, 0.2900 psia
pressure	1 (	64.0948)	=	64.0948 psia	
pressure	2 (	64.0959)	=	64.0959 psia	

weighted averages, volume and air mass

temperature	=	76.15678 deg. F
pressure	=	64.09590 psia
vapor pressure	=	0.29063 psia
volume	=	2649000 cu. ft.
dry air mass	=	851416.7 lbm

PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 19

time = 1900 date = 221

sensor	raw data	value
temperature 1 (	76.430)	= 76.430 deg. F
temperature 2 (	76.440)	= 76.440 deg. F
temperature 3 (	76.490)	= 76.490 deg. F
temperature 4 (	76.500)	= 76.500 deg. F
temperature 5 (	76.560)	= 76.560 deg. F
temperature 6 (	76.640)	= 76.640 deg. F
temperature 7 (	76.440)	= 76.440 deg. F
temperature 8 (	76.620)	= 76.620 deg. F
temperature 9 (	76.670)	= 76.670 deg. F
temperature 10 (	76.640)	= 76.640 deg. F
temperature 11 (	76.670)	= 76.670 deg. F
temperature 12 (	76.690)	= 76.690 deg. F
temperature 13 (	76.510)	= 76.510 deg. F
temperature 14 (	76.070)	= 76.070 deg. F
temperature 15 (	76.540)	= 76.540 deg. F
temperature 16 (	76.160)	= 76.160 deg. F
temperature 17 (	76.300)	= 76.300 deg. F
temperature 18 (	75.670)	= 75.670 deg. F
temperature 19 (	75.790)	= 75.790 deg. F
temperature 20 (	75.260)	= 75.260 deg. F
temperature 21 (	74.890)	= 74.890 deg. F
temperature 22 (	74.270)	= 74.270 deg. F
temperature 23 (	72.660)	= 72.660 deg. F
temperature 24 (	76.460)	= 76.460 deg. F
dewpoint 1 (	63.270)	= 63.270 deg. F , 0.2875 psia
dewpoint 2 (	63.570)	= 63.570 deg. F , 0.2906 psia
dewpoint 3 (	63.540)	= 63.540 deg. F , 0.2903 psia
dewpoint 4 (	63.730)	= 63.730 deg. F , 0.2922 psia
dewpoint 5 (	63.740)	= 63.740 deg. F , 0.2923 psia
dewpoint 6 (	63.480)	= 63.480 deg. F , 0.2896 psia
pressure 1 (	64.0909)	= 64.0909 psia
pressure 2 (	64.0922)	= 64.0922 psia

weighted averages, volume and air mass

temperature	=	76.13318 deg. F
pressure	=	64.09220 psia
vapor pressure	=	0.29045 psia
volume	=	2649000 cu. ft.
dry air mass	=	851407.3 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 20

time = 1915 date = 221

sensor		raw data		value	
temperature	1 (	76.370)	=	76.370 deg. F	
temperature	2 (	76.410)	=	76.410 deg. F	
temperature	3 (	76.480)	=	76.480 deg. F	
temperature	4 (	76.440)	=	76.440 deg. F	
temperature	5 (	76.520)	=	76.520 deg. F	
temperature	6 (	76.600)	=	76.600 deg. F	
temperature	7 (	76.380)	=	76.380 deg. F	
temperature	8 (	76.530)	=	76.530 deg. F	
temperature	9 (	76.650)	=	76.650 deg. F	
temperature	10 (	76.600)	=	76.600 deg. F	
temperature	11 (	76.660)	=	76.660 deg. F	
temperature	12 (	76.660)	=	76.660 deg. F	
temperature	13 (	76.480)	=	76.480 deg. F	
temperature	14 (	76.020)	=	76.020 deg. F	
temperature	15 (	76.530)	=	76.530 deg. F	
temperature	16 (	76.150)	=	76.150 deg. F	
temperature	17 (	76.250)	=	76.250 deg. F	
temperature	18 (	75.640)	=	75.640 deg. F	
temperature	19 (	75.770)	=	75.770 deg. F	
temperature	20 (	75.250)	=	75.250 deg. F	
temperature	21 (	74.880)	=	74.880 deg. F	
temperature	22 (	74.290)	=	74.290 deg. F	
temperature	23 (	72.670)	=	72.670 deg. F	
temperature	24 (	76.430)	=	76.430 deg. F	
dewpoint	1 (	63.090)	=	63.090 deg. F	0.2857 psia
dewpoint	2 (	63.520)	=	63.520 deg. F	0.2900 psia
dewpoint	3 (	63.510)	=	63.510 deg. F	0.2899 psia
dewpoint	4 (	63.700)	=	63.700 deg. F	0.2919 psia
dewpoint	5 (	63.730)	=	63.730 deg. F	0.2922 psia
dewpoint	6 (	63.440)	=	63.440 deg. F	0.2892 psia
pressure	1 (	64.0874)	=	64.0874 psia	
pressure	2 (	64.0884)	=	64.0884 psia	

weighted averages, volume and air mass

temperature	=	76.10238 deg. F
pressure	=	64.08840 psia
vapor pressure	=	0.28988 psia
volume	=	2649000 cu. ft.
dry air mass	=	851413.1 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 21

time = 1930 date = 221

sensor		raw data		value	
temperature	1	(76.370)	=	76.370 deg. F	
temperature	2	(76.370)	=	76.370 deg. F	
temperature	3	(76.480)	=	76.480 deg. F	
temperature	4	(76.420)	=	76.420 deg. F	
temperature	5	(76.490)	=	76.490 deg. F	
temperature	6	(76.560)	=	76.560 deg. F	
temperature	7	(76.370)	=	76.370 deg. F	
temperature	8	(76.520)	=	76.520 deg. F	
temperature	9	(76.590)	=	76.590 deg. F	
temperature	10	(76.560)	=	76.560 deg. F	
temperature	11	(76.640)	=	76.640 deg. F	
temperature	12	(76.610)	=	76.610 deg. F	
temperature	13	(76.430)	=	76.430 deg. F	
temperature	14	(75.980)	=	75.980 deg. F	
temperature	15	(76.500)	=	76.500 deg. F	
temperature	16	(76.100)	=	76.100 deg. F	
temperature	17	(76.250)	=	76.250 deg. F	
temperature	18	(75.610)	=	75.610 deg. F	
temperature	19	(75.750)	=	75.750 deg. F	
temperature	20	(75.240)	=	75.240 deg. F	
temperature	21	(74.880)	=	74.880 deg. F	
temperature	22	(74.280)	=	74.280 deg. F	
temperature	23	(72.670)	=	72.670 deg. F	
temperature	24	(76.390)	=	76.390 deg. F	
dewpoint	1	(63.170)	=	63.170 deg. F	, 0.2865 psia
dewpoint	2	(63.520)	=	63.520 deg. F	, 0.2900 psia
dewpoint	3	(63.510)	=	63.510 deg. F	, 0.2899 psia
dewpoint	4	(63.690)	=	63.690 deg. F	, 0.2918 psia
dewpoint	5	(63.720)	=	63.720 deg. F	, 0.2921 psia
dewpoint	6	(63.490)	=	63.490 deg. F	, 0.2897 psia
pressure	1	(64.0837)	=	64.0837 psia	
pressure	2	(64.0845)	=	64.0845 psia	

weighted averages, volume and air mass

temperature	=	76.07604 deg. F
pressure	=	64.08450 psia
vapor pressure	=	0.29004 psia
volume	=	2649000 cu. ft.
dry air mass	=	851400.9 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 22

time = 1945 date = 221

sensor	raw data	value
temperature 1	(76.300) =	76.300 deg. F
temperature 2	(76.330) =	76.330 deg. F
temperature 3	(76.410) =	76.410 deg. F
temperature 4	(76.360) =	76.360 deg. F
temperature 5	(76.450) =	76.450 deg. F
temperature 6	(76.550) =	76.550 deg. F
temperature 7	(76.350) =	76.350 deg. F
temperature 8	(76.520) =	76.520 deg. F
temperature 9	(76.550) =	76.550 deg. F
temperature 10	(76.530) =	76.530 deg. F
temperature 11	(76.550) =	76.550 deg. F
temperature 12	(76.640) =	76.640 deg. F
temperature 13	(76.410) =	76.410 deg. F
temperature 14	(75.960) =	75.960 deg. F
temperature 15	(76.470) =	76.470 deg. F
temperature 16	(76.050) =	76.050 deg. F
temperature 17	(76.200) =	76.200 deg. F
temperature 18	(75.590) =	75.590 deg. F
temperature 19	(75.730) =	75.730 deg. F
temperature 20	(75.230) =	75.230 deg. F
temperature 21	(74.860) =	74.860 deg. F
temperature 22	(74.270) =	74.270 deg. F
temperature 23	(72.680) =	72.680 deg. F
temperature 24	(76.370) =	76.370 deg. F
dewpoint 1	(63.100) =	63.100 deg. F , 0.2858 psia
dewpoint 2	(63.500) =	63.500 deg. F , 0.2898 psia
dewpoint 3	(63.490) =	63.490 deg. F , 0.2897 psia
dewpoint 4	(63.660) =	63.660 deg. F , 0.2915 psia
dewpoint 5	(63.710) =	63.710 deg. F , 0.2920 psia
dewpoint 6	(63.450) =	63.450 deg. F , 0.2893 psia
pressure 1	(64.0798) =	64.0798 psia
pressure 2	(64.0805) =	64.0805 psia

weighted averages, volume and air mass

temperature	=	76.04663 deg. F
pressure	=	64.08050 psia
vapor pressure	=	0.28972 psia
volume	=	2649000 cu. ft.
dry air mass	=	851398.3 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 23

time = 2000 date = 221

sensor	raw data	value
temperature 1 (	76.290)	= 76.290 deg. F
temperature 2 (	76.280)	= 76.280 deg. F
temperature 3 (	76.390)	= 76.390 deg. F
temperature 4 (	76.340)	= 76.340 deg. F
temperature 5 (	76.420)	= 76.420 deg. F
temperature 6 (	76.500)	= 76.500 deg. F
temperature 7 (	76.310)	= 76.310 deg. F
temperature 8 (	76.450)	= 76.450 deg. F
temperature 9 (	76.530)	= 76.530 deg. F
temperature 10 (	76.500)	= 76.500 deg. F
temperature 11 (	76.540)	= 76.540 deg. F
temperature 12 (	76.560)	= 76.560 deg. F
temperature 13 (	76.360)	= 76.360 deg. F
temperature 14 (	75.930)	= 75.930 deg. F
temperature 15 (	76.430)	= 76.430 deg. F
temperature 16 (	76.010)	= 76.010 deg. F
temperature 17 (	76.190)	= 76.190 deg. F
temperature 18 (	75.580)	= 75.580 deg. F
temperature 19 (	75.710)	= 75.710 deg. F
temperature 20 (	75.230)	= 75.230 deg. F
temperature 21 (	74.840)	= 74.840 deg. F
temperature 22 (	74.260)	= 74.260 deg. F
temperature 23 (	72.690)	= 72.690 deg. F
temperature 24 (	76.350)	= 76.350 deg. F
dewpoint 1 (	63.120)	= 63.120 deg. F , 0.2860 psia
dewpoint 2 (	63.510)	= 63.510 deg. F , 0.2899 psia
dewpoint 3 (	63.490)	= 63.490 deg. F , 0.2897 psia
dewpoint 4 (	63.650)	= 63.650 deg. F , 0.2914 psia
dewpoint 5 (	63.690)	= 63.690 deg. F , 0.2918 psia
dewpoint 6 (	63.430)	= 63.430 deg. F , 0.2891 psia
pressure 1 (	64.0764)	= 64.0764 psia
pressure 2 (	64.0772)	= 64.0772 psia

weighted averages, volume and air mass

temperature	=	76.01659 deg. F
pressure	=	64.07720 psia
vapor pressure	=	0.28970 psia
volume	=	2649000 cu. ft.
dry air mass	=	851402.3 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 24

time = 2015 date = 221

sensor	raw data	value
temperature 1	(76.270) =	76.270 deg. F
temperature 2	(76.270) =	76.270 deg. F
temperature 3	(76.330) =	76.330 deg. F
temperature 4	(76.350) =	76.350 deg. F
temperature 5	(76.370) =	76.370 deg. F
temperature 6	(76.490) =	76.490 deg. F
temperature 7	(76.270) =	76.270 deg. F
temperature 8	(76.400) =	76.400 deg. F
temperature 9	(76.490) =	76.490 deg. F
temperature 10	(76.480) =	76.480 deg. F
temperature 11	(76.520) =	76.520 deg. F
temperature 12	(76.550) =	76.550 deg. F
temperature 13	(76.340) =	76.340 deg. F
temperature 14	(75.900) =	75.900 deg. F
temperature 15	(76.400) =	76.400 deg. F
temperature 16	(76.000) =	76.000 deg. F
temperature 17	(76.130) =	76.130 deg. F
temperature 18	(75.570) =	75.570 deg. F
temperature 19	(75.700) =	75.700 deg. F
temperature 20	(75.210) =	75.210 deg. F
temperature 21	(74.830) =	74.830 deg. F
temperature 22	(74.270) =	74.270 deg. F
temperature 23	(72.690) =	72.690 deg. F
temperature 24	(76.300) =	76.300 deg. F
dewpoint 1	(63.040) =	63.040 deg. F , 0.2852 psia
dewpoint 2	(63.500) =	63.500 deg. F , 0.2898 psia
dewpoint 3	(63.470) =	63.470 deg. F , 0.2895 psia
dewpoint 4	(63.650) =	63.650 deg. F , 0.2914 psia
dewpoint 5	(63.650) =	63.650 deg. F , 0.2914 psia
dewpoint 6	(63.340) =	63.340 deg. F , 0.2882 psia
pressure 1	(64.0730) =	64.0730 psia
pressure 2	(64.0738) =	64.0738 psia

weighted averages, volume and air mass

temperature	=	75.99286 deg. F
pressure	=	64.07380 psia
vapor pressure	=	0.28934 psia
volume	=	2649000 cu. ft.
dry air mass	=	851399.4 lbm



FVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 25

time = 2030 date = 221

sensor	raw data	value
temperature 1	(76.230) =	76.230 deg. F
temperature 2	(76.250) =	76.250 deg. F
temperature 3	(76.320) =	76.320 deg. F
temperature 4	(76.280) =	76.280 deg. F
temperature 5	(76.360) =	76.360 deg. F
temperature 6	(76.470) =	76.470 deg. F
temperature 7	(76.220) =	76.220 deg. F
temperature 8	(76.360) =	76.360 deg. F
temperature 9	(76.460) =	76.460 deg. F
temperature 10	(76.440) =	76.440 deg. F
temperature 11	(76.490) =	76.490 deg. F
temperature 12	(76.510) =	76.510 deg. F
temperature 13	(76.310) =	76.310 deg. F
temperature 14	(75.860) =	75.860 deg. F
temperature 15	(76.370) =	76.370 deg. F
temperature 16	(75.960) =	75.960 deg. F
temperature 17	(76.150) =	76.150 deg. F
temperature 18	(75.530) =	75.530 deg. F
temperature 19	(75.670) =	75.670 deg. F
temperature 20	(75.210) =	75.210 deg. F
temperature 21	(74.830) =	74.830 deg. F
temperature 22	(74.280) =	74.280 deg. F
temperature 23	(72.700) =	72.700 deg. F
temperature 24	(76.270) =	76.270 deg. F
dewpoint 1	(63.330) =	63.330 deg. F , 0.2881 psia
dewpoint 2	(63.480) =	63.480 deg. F , 0.2896 psia
dewpoint 3	(63.460) =	63.460 deg. F , 0.2894 psia
dewpoint 4	(63.600) =	63.600 deg. F , 0.2909 psia
dewpoint 5	(63.640) =	63.640 deg. F , 0.2913 psia
dewpoint 6	(63.350) =	63.350 deg. F , 0.2883 psia
pressure 1	(64.0698) =	64.0698 psia
pressure 2	(64.0705) =	64.0705 psia

weighted averages, volume and air mass

temperature	=	75.96640 deg. F
pressure	=	64.07050 psia
vapor pressure	=	0.28966 psia
volume	=	2649000 cu. ft.
dry air mass	=	851393.2 lbm



FVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 26

time = 2045 date = 221

sensor	raw data	value
temperature 1	(76.200)	= 76.200 deg. F
temperature 2	(76.200)	= 76.200 deg. F
temperature 3	(76.290)	= 76.290 deg. F
temperature 4	(76.280)	= 76.280 deg. F
temperature 5	(76.320)	= 76.320 deg. F
temperature 6	(76.410)	= 76.410 deg. F
temperature 7	(76.220)	= 76.220 deg. F
temperature 8	(76.340)	= 76.340 deg. F
temperature 9	(76.430)	= 76.430 deg. F
temperature 10	(76.420)	= 76.420 deg. F
temperature 11	(76.450)	= 76.450 deg. F
temperature 12	(76.470)	= 76.470 deg. F
temperature 13	(76.280)	= 76.280 deg. F
temperature 14	(75.840)	= 75.840 deg. F
temperature 15	(76.340)	= 76.340 deg. F
temperature 16	(75.940)	= 75.940 deg. F
temperature 17	(76.070)	= 76.070 deg. F
temperature 18	(75.530)	= 75.530 deg. F
temperature 19	(75.660)	= 75.660 deg. F
temperature 20	(75.190)	= 75.190 deg. F
temperature 21	(74.810)	= 74.810 deg. F
temperature 22	(74.270)	= 74.270 deg. F
temperature 23	(72.690)	= 72.690 deg. F
temperature 24	(76.260)	= 76.260 deg. F
dewpoint 1	(62.960)	= 62.960 deg. F , 0.2844 psia
dewpoint 2	(63.420)	= 63.420 deg. F , 0.2890 psia
dewpoint 3	(63.390)	= 63.390 deg. F , 0.2887 psia
dewpoint 4	(63.600)	= 63.600 deg. F , 0.2909 psia
dewpoint 5	(63.630)	= 63.630 deg. F , 0.2912 psia
dewpoint 6	(63.420)	= 63.420 deg. F , 0.2890 psia
pressure 1	(64.0665)	= 64.0665 psia
pressure 2	(64.0672)	= 64.0672 psia

weighted averages, volume and air mass

temperature	=	75.93982 deg. F
pressure	=	64.06720 psia
vapor pressure	=	0.28887 psia
volume	=	2649000 cu. ft.
dry air mass	=	851401.9 lbm



FVHCC UNIT 1-1990-ILRT-TYPE A TEST

data set 27

time = 2100 date = 221

sensor	raw data	value
temperature 1	(76.180) =	76.180 deg. F
temperature 2	(76.170) =	76.170 deg. F
temperature 3	(76.230) =	76.230 deg. F
temperature 4	(76.220) =	76.220 deg. F
temperature 5	(76.320) =	76.320 deg. F
temperature 6	(76.390) =	76.390 deg. F
temperature 7	(76.180) =	76.180 deg. F
temperature 8	(76.300) =	76.300 deg. F
temperature 9	(76.410) =	76.410 deg. F
temperature 10	(76.400) =	76.400 deg. F
temperature 11	(76.420) =	76.420 deg. F
temperature 12	(76.450) =	76.450 deg. F
temperature 13	(76.240) =	76.240 deg. F
temperature 14	(75.800) =	75.800 deg. F
temperature 15	(76.320) =	76.320 deg. F
temperature 16	(75.940) =	75.940 deg. F
temperature 17	(76.080) =	76.080 deg. F
temperature 18	(75.520) =	75.520 deg. F
temperature 19	(75.640) =	75.640 deg. F
temperature 20	(75.160) =	75.160 deg. F
temperature 21	(74.800) =	74.800 deg. F
temperature 22	(74.260) =	74.260 deg. F
temperature 23	(72.710) =	72.710 deg. F
temperature 24	(76.230) =	76.230 deg. F
dewpoint 1	(63.040) =	63.040 deg. F , 0.2852 psia
dewpoint 2	(63.420) =	63.420 deg. F , 0.2890 psia
dewpoint 3	(63.410) =	63.410 deg. F , 0.2889 psia
dewpoint 4	(63.590) =	63.590 deg. F , 0.2908 psia
dewpoint 5	(63.600) =	63.600 deg. F , 0.2909 psia
dewpoint 6	(63.400) =	63.400 deg. F , 0.2888 psia
pressure 1	(64.0634) =	64.0634 psia
pressure 2	(64.0642) =	64.0642 psia

weighted averages, volume and air mass

temperature	=	75.91644 deg. F
pressure	=	64.06420 psia
vapor pressure	=	0.28895 psia
volume	=	2649000 cu. ft.
dry air mass	=	851398.0 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 28

time = 2115 date = 221

sensor		raw data		value	
temperature	1	(76.150)	=	76.150 deg. F	
temperature	2	(76.150)	=	76.150 deg. F	
temperature	3	(76.220)	=	76.220 deg. F	
temperature	4	(76.170)	=	76.170 deg. F	
temperature	5	(76.290)	=	76.290 deg. F	
temperature	6	(76.370)	=	76.370 deg. F	
temperature	7	(76.160)	=	76.160 deg. F	
temperature	8	(76.270)	=	76.270 deg. F	
temperature	9	(76.380)	=	76.380 deg. F	
temperature	10	(76.370)	=	76.370 deg. F	
temperature	11	(76.400)	=	76.400 deg. F	
temperature	12	(76.400)	=	76.400 deg. F	
temperature	13	(76.220)	=	76.220 deg. F	
temperature	14	(75.770)	=	75.770 deg. F	
temperature	15	(76.280)	=	76.280 deg. F	
temperature	16	(75.860)	=	75.860 deg. F	
temperature	17	(76.050)	=	76.050 deg. F	
temperature	18	(75.470)	=	75.470 deg. F	
temperature	19	(75.620)	=	75.620 deg. F	
temperature	20	(75.150)	=	75.150 deg. F	
temperature	21	(74.800)	=	74.800 deg. F	
temperature	22	(74.260)	=	74.260 deg. F	
temperature	23	(72.710)	=	72.710 deg. F	
temperature	24	(76.200)	=	76.200 deg. F	
dewpoint	1	(63.020)	=	63.020 deg. F	, 0.2850 psia
dewpoint	2	(63.410)	=	63.410 deg. F	, 0.2889 psia
dewpoint	3	(63.390)	=	63.390 deg. F	, 0.2887 psia
dewpoint	4	(63.560)	=	63.560 deg. F	, 0.2905 psia
dewpoint	5	(63.590)	=	63.590 deg. F	, 0.2908 psia
dewpoint	6	(63.300)	=	63.300 deg. F	, 0.2878 psia
pressure	1	(64.0602)	=	64.0602 psia	
pressure	2	(64.0610)	=	64.0610 psia	

weighted averages, volume and air mass

temperature	=	75.88855 deg. F
pressure	=	64.06100 psia
vapor pressure	=	0.28867 psia
volume	=	2649000 cu. ft.
dry air mass	=	851403.3 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 29

time = 2130 date = 221

sensor	raw data	value
temperature 1	(76.110)	= 76.110 deg. F
temperature 2	(76.130)	= 76.130 deg. F
temperature 3	(76.180)	= 76.180 deg. F
temperature 4	(76.170)	= 76.170 deg. F
temperature 5	(76.240)	= 76.240 deg. F
temperature 6	(76.340)	= 76.340 deg. F
temperature 7	(76.140)	= 76.140 deg. F
temperature 8	(76.280)	= 76.280 deg. F
temperature 9	(76.340)	= 76.340 deg. F
temperature 10	(76.320)	= 76.320 deg. F
temperature 11	(76.390)	= 76.390 deg. F
temperature 12	(76.410)	= 76.410 deg. F
temperature 13	(76.190)	= 76.190 deg. F
temperature 14	(75.760)	= 75.760 deg. F
temperature 15	(76.260)	= 76.260 deg. F
temperature 16	(75.880)	= 75.880 deg. F
temperature 17	(76.020)	= 76.020 deg. F
temperature 18	(75.490)	= 75.490 deg. F
temperature 19	(75.610)	= 75.610 deg. F
temperature 20	(75.120)	= 75.120 deg. F
temperature 21	(74.780)	= 74.780 deg. F
temperature 22	(74.270)	= 74.270 deg. F
temperature 23	(72.720)	= 72.720 deg. F
temperature 24	(76.190)	= 76.190 deg. F
dewpoint 1	(63.150)	= 63.150 deg. F , 0.2863 psia
dewpoint 2	(63.420)	= 63.420 deg. F , 0.2890 psia
dewpoint 3	(63.410)	= 63.410 deg. F , 0.2889 psia
dewpoint 4	(63.560)	= 63.560 deg. F , 0.2905 psia
dewpoint 5	(63.570)	= 63.570 deg. F , 0.2906 psia
dewpoint 6	(63.360)	= 63.360 deg. F , 0.2884 psia
pressure 1	(64.0569)	= 64.0569 psia
pressure 2	(64.0580)	= 64.0580 psia

weighted averages, volume and air mass

temperature	=	75.87217 deg. F
pressure	=	64.05800 psia
vapor pressure	=	0.28898 psia
volume	=	2649000 cu. ft.
dry air mass	=	851385.1 lbm



FVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 30

time = 2143 date = 221

sensor	raw data	value
temperature 1 (	76.080)	= 76.080 deg. F
temperature 2 (	76.100)	= 76.100 deg. F
temperature 3 (	76.150)	= 76.150 deg. F
temperature 4 (	76.160)	= 76.160 deg. F
temperature 5 (	76.210)	= 76.210 deg. F
temperature 6 (	76.340)	= 76.340 deg. F
temperature 7 (	76.100)	= 76.100 deg. F
temperature 8 (	76.230)	= 76.230 deg. F
temperature 9 (	76.310)	= 76.310 deg. F
temperature 10 (	76.290)	= 76.290 deg. F
temperature 11 (	76.350)	= 76.350 deg. F
temperature 12 (	76.320)	= 76.320 deg. F
temperature 13 (	76.150)	= 76.150 deg. F
temperature 14 (	75.740)	= 75.740 deg. F
temperature 15 (	76.250)	= 76.250 deg. F
temperature 16 (	75.790)	= 75.790 deg. F
temperature 17 (	75.990)	= 75.990 deg. F
temperature 18 (	75.450)	= 75.450 deg. F
temperature 19 (	75.590)	= 75.590 deg. F
temperature 20 (	75.110)	= 75.110 deg. F
temperature 21 (	74.770)	= 74.770 deg. F
temperature 22 (	74.250)	= 74.250 deg. F
temperature 23 (	72.720)	= 72.720 deg. F
temperature 24 (	76.150)	= 76.150 deg. F
dewpoint 1 (	63.050)	= 63.050 deg. F , 0.2853 psia
dewpoint 2 (	63.360)	= 63.360 deg. F , 0.2884 psia
dewpoint 3 (	63.360)	= 63.360 deg. F , 0.2884 psia
dewpoint 4 (	63.520)	= 63.520 deg. F , 0.2900 psia
dewpoint 5 (	63.550)	= 63.550 deg. F , 0.2904 psia
dewpoint 6 (	63.290)	= 63.290 deg. F , 0.2877 psia
pressure 1 (	64.0541)	= 64.0541 psia
pressure 2 (	64.0551)	= 64.0551 psia

weighted averages, volume and air mass

temperature	=	75.84019 deg. F
pressure	=	64.05510 psia
vapor pressure	=	0.28841 psia
volume	=	2649000 cu. ft.
dry air mass	=	851404.9 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 31

time = 2200. date = 221

sensor		raw data	=	value	
temperature	1	(76.060)	=	76.060	deg. F
temperature	2	(76.080)	=	76.080	deg. F
temperature	3	(76.170)	=	76.170	deg. F
temperature	4	(76.100)	=	76.100	deg. F
temperature	5	(76.210)	=	76.210	deg. F
temperature	6	(76.290)	=	76.290	deg. F
temperature	7	(76.090)	=	76.090	deg. F
temperature	8	(76.210)	=	76.210	deg. F
temperature	9	(76.290)	=	76.290	deg. F
temperature	10	(76.270)	=	76.270	deg. F
temperature	11	(76.300)	=	76.300	deg. F
temperature	12	(76.370)	=	76.370	deg. F
temperature	13	(76.140)	=	76.140	deg. F
temperature	14	(75.710)	=	75.710	deg. F
temperature	15	(76.230)	=	76.230	deg. F
temperature	16	(75.840)	=	75.840	deg. F
temperature	17	(75.980)	=	75.980	deg. F
temperature	18	(75.460)	=	75.460	deg. F
temperature	19	(75.570)	=	75.570	deg. F
temperature	20	(75.090)	=	75.090	deg. F
temperature	21	(74.770)	=	74.770	deg. F
temperature	22	(74.260)	=	74.260	deg. F
temperature	23	(72.730)	=	72.730	deg. F
temperature	24	(76.130)	=	76.130	deg. F
dewpoint	1	(63.150)	=	63.150	deg. F , 0.2863 psia
dewpoint	2	(63.330)	=	63.330	deg. F , 0.2881 psia
dewpoint	3	(63.360)	=	63.360	deg. F , 0.2884 psia
dewpoint	4	(63.520)	=	63.520	deg. F , 0.2900 psia
dewpoint	5	(63.530)	=	63.530	deg. F , 0.2901 psia
dewpoint	6	(63.320)	=	63.320	deg. F , 0.2880 psia
pressure	1	(64.0512)	=	64.0512	psia
pressure	2	(64.0522)	=	64.0522	psia

weighted averages, volume and air mass

temperature	=	75.82951	deg. F
pressure	=	64.05220	psia
vapor pressure	=	0.28852	psia
volume	=	2649000	cu. ft.
dry air mass	=	851381.7	lbm



FWNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 30

time = 2215 date = 221

sensor		raw data		value	
temperature	1 (	76.030)	=	76.030 deg. F	
temperature	2 (	76.040)	=	76.040 deg. F	
temperature	3 (	76.130)	=	76.130 deg. F	
temperature	4 (	76.100)	=	76.100 deg. F	
temperature	5 (	76.160)	=	76.160 deg. F	
temperature	6 (	76.270)	=	76.270 deg. F	
temperature	7 (	76.060)	=	76.060 deg. F	
temperature	8 (	76.160)	=	76.160 deg. F	
temperature	9 (	76.270)	=	76.270 deg. F	
temperature	10 (	76.250)	=	76.250 deg. F	
temperature	11 (	76.300)	=	76.300 deg. F	
temperature	12 (	76.380)	=	76.380 deg. F	
temperature	13 (	76.120)	=	76.120 deg. F	
temperature	14 (	75.700)	=	75.700 deg. F	
temperature	15 (	76.220)	=	76.220 deg. F	
temperature	16 (	75.840)	=	75.840 deg. F	
temperature	17 (	75.970)	=	75.970 deg. F	
temperature	18 (	75.440)	=	75.440 deg. F	
temperature	19 (	75.580)	=	75.580 deg. F	
temperature	20 (	75.080)	=	75.080 deg. F	
temperature	21 (	74.740)	=	74.740 deg. F	
temperature	22 (	74.240)	=	74.240 deg. F	
temperature	23 (	72.740)	=	72.740 deg. F	
temperature	24 (	76.110)	=	76.110 deg. F	
dewpoint	1 (	63.030)	=	63.030 deg. F	, 0.2851 psia
dewpoint	2 (	63.360)	=	63.360 deg. F	, 0.2884 psia
dewpoint	3 (	63.330)	=	63.330 deg. F	, 0.2881 psia
dewpoint	4 (	63.490)	=	63.490 deg. F	, 0.2897 psia
dewpoint	5 (	63.520)	=	63.520 deg. F	, 0.2900 psia
dewpoint	6 (	63.220)	=	63.220 deg. F	, 0.2870 psia
pressure	1 (	64.0483)	=	64.0483 psia	
pressure	2 (	64.0491)	=	64.0491 psia	

weighted averages, volume and air mass

temperature	=	75.81190 deg. F
pressure	=	64.04910 psia
vapor pressure	=	0.28814 psia
volume	=	2649000 cu. ft.
dry air mass	=	851373.5 lbm



PVNGS UNIT 1-1990-ILRT-TYPE A TEST

data set 30

time = 2200 Date = 221

sensor		raw data		value	
temperature	1	(75.980)	=	75.980 deg. F	
temperature	2	(76.020)	=	76.020 deg. F	
temperature	3	(76.050)	=	76.050 deg. F	
temperature	4	(76.050)	=	76.050 deg. F	
temperature	5	(76.110)	=	76.110 deg. F	
temperature	6	(76.250)	=	76.250 deg. F	
temperature	7	(76.020)	=	76.020 deg. F	
temperature	8	(76.180)	=	76.180 deg. F	
temperature	9	(76.240)	=	76.240 deg. F	
temperature	10	(76.230)	=	76.230 deg. F	
temperature	11	(76.260)	=	76.260 deg. F	
temperature	12	(76.310)	=	76.310 deg. F	
temperature	13	(76.080)	=	76.080 deg. F	
temperature	14	(75.660)	=	75.660 deg. F	
temperature	15	(76.170)	=	76.170 deg. F	
temperature	16	(75.780)	=	75.780 deg. F	
temperature	17	(75.900)	=	75.900 deg. F	
temperature	18	(75.400)	=	75.400 deg. F	
temperature	19	(75.550)	=	75.550 deg. F	
temperature	20	(75.070)	=	75.070 deg. F	
temperature	21	(74.740)	=	74.740 deg. F	
temperature	22	(74.240)	=	74.240 deg. F	
temperature	23	(72.740)	=	72.740 deg. F	
temperature	24	(76.080)	=	76.080 deg. F	
dewpoint	1	(63.000)	=	63.000 deg. F	, 0.2848 psia
dewpoint	2	(63.350)	=	63.350 deg. F	, 0.2883 psia
dewpoint	3	(63.330)	=	63.330 deg. F	, 0.2881 psia
dewpoint	4	(63.470)	=	63.470 deg. F	, 0.2895 psia
dewpoint	5	(63.490)	=	63.490 deg. F	, 0.2897 psia
dewpoint	6	(63.170)	=	63.170 deg. F	, 0.2865 psia
pressure	1	(64.0453)	=	64.0453 psia	
pressure	2	(64.0462)	=	64.0462 psia	

weighted averages, volume and air mass

temperature	=	75.77689 deg. F
pressure	=	64.04620 psia
vapor pressure	=	0.28793 psia
volume	=	2649000 cu. ft.
dry air mass	=	851393.2 lbm



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix III

VERIFICATION STABILIZATION
DATA SET



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	2300	221	75.7386	64.0394	0.2877	851366.4
2	2315	221	75.7135	64.0360	0.2882	851354.1
3	2330	221	75.6940	64.0329	0.2870	851360.2
4	2345	221	75.6783	64.0297	0.2873	851338.3
5	0	222	75.6540	64.0264	0.2868	851339.0



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

data set 1

time = 2300 date = 221

sensor	raw data	value
temperature 1	(75.940) =	75.940 deg. F
temperature 2	(75.970) =	75.970 deg. F
temperature 3	(76.020) =	76.020 deg. F
temperature 4	(76.010) =	76.010 deg. F
temperature 5	(76.100) =	76.100 deg. F
temperature 6	(76.170) =	76.170 deg. F
temperature 7	(75.970) =	75.970 deg. F
temperature 8	(76.130) =	76.130 deg. F
temperature 9	(76.200) =	76.200 deg. F
temperature 10	(76.170) =	76.170 deg. F
temperature 11	(76.230) =	76.230 deg. F
temperature 12	(76.260) =	76.260 deg. F
temperature 13	(76.030) =	76.030 deg. F
temperature 14	(75.600) =	75.600 deg. F
temperature 15	(76.130) =	76.130 deg. F
temperature 16	(75.760) =	75.760 deg. F
temperature 17	(75.880) =	75.880 deg. F
temperature 18	(75.380) =	75.380 deg. F
temperature 19	(75.510) =	75.510 deg. F
temperature 20	(75.050) =	75.050 deg. F
temperature 21	(74.710) =	74.710 deg. F
temperature 22	(74.230) =	74.230 deg. F
temperature 23	(72.740) =	72.740 deg. F
temperature 24	(76.030) =	76.030 deg. F
dewpoint 1	(62.940) =	62.940 deg. F , 0.2842 psia
dewpoint 2	(63.330) =	63.330 deg. F , 0.2881 psia
dewpoint 3	(63.300) =	63.300 deg. F , 0.2878 psia
dewpoint 4	(63.410) =	63.410 deg. F , 0.2889 psia
dewpoint 5	(63.480) =	63.480 deg. F , 0.2896 psia
dewpoint 6	(63.240) =	63.240 deg. F , 0.2872 psia
pressure 1	(64.0391) =	64.0391 psia
pressure 2	(64.0394) =	64.0394 psia

weighted averages, volume and air mass

temperature	=	75.73863 deg. F
pressure	=	64.03940 psia
vapor pressure	=	0.28769 psia
volume	=	2649000 cu. ft.
dry air mass	=	851366.4 lbm



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

data set. 2

time = 2315 date = 221

sensor	raw data	value
temperature 1	(75.940)	= 75.940 deg. F
temperature 2	(75.930)	= 75.930 deg. F
temperature 3	(76.040)	= 76.040 deg. F
temperature 4	(75.980)	= 75.980 deg. F
temperature 5	(76.060)	= 76.060 deg. F
temperature 6	(76.140)	= 76.140 deg. F
temperature 7	(75.930)	= 75.930 deg. F
temperature 8	(76.080)	= 76.080 deg. F
temperature 9	(76.180)	= 76.180 deg. F
temperature 10	(76.140)	= 76.140 deg. F
temperature 11	(76.200)	= 76.200 deg. F
temperature 12	(76.230)	= 76.230 deg. F
temperature 13	(76.010)	= 76.010 deg. F
temperature 14	(75.570)	= 75.570 deg. F
temperature 15	(76.100)	= 76.100 deg. F
temperature 16	(75.730)	= 75.730 deg. F
temperature 17	(75.830)	= 75.830 deg. F
temperature 18	(75.350)	= 75.350 deg. F
temperature 19	(75.510)	= 75.510 deg. F
temperature 20	(75.010)	= 75.010 deg. F
temperature 21	(74.700)	= 74.700 deg. F
temperature 22	(74.220)	= 74.220 deg. F
temperature 23	(72.750)	= 72.750 deg. F
temperature 24	(76.010)	= 76.010 deg. F
dewpoint 1	(63.220)	= 63.220 deg. F , 0.2870 psia
dewpoint 2	(63.340)	= 63.340 deg. F , 0.2882 psia
dewpoint 3	(63.290)	= 63.290 deg. F , 0.2877 psia
dewpoint 4	(63.430)	= 63.430 deg. F , 0.2891 psia
dewpoint 5	(63.470)	= 63.470 deg. F , 0.2895 psia
dewpoint 6	(63.270)	= 63.270 deg. F , 0.2875 psia
pressure 1	(64.0358)	= 64.0358 psia
pressure 2	(64.0360)	= 64.0360 psia

weighted averages, volume and air mass

temperature	=	75.71352 deg. F
pressure	=	64.03600 psia
vapor pressure	=	0.28820 psia
volume	=	2649000 cu. ft.
dry air mass	=	851354.1 lbm



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

data set 3

time = 2330 date = 221

sensor	raw data	value
temperature 1	(75.900)	= 75.900 deg. F
temperature 2	(75.910)	= 75.910 deg. F
temperature 3	(75.990)	= 75.990 deg. F
temperature 4	(75.950)	= 75.950 deg. F
temperature 5	(76.030)	= 76.030 deg. F
temperature 6	(76.130)	= 76.130 deg. F
temperature 7	(75.890)	= 75.890 deg. F
temperature 8	(76.040)	= 76.040 deg. F
temperature 9	(76.150)	= 76.150 deg. F
temperature 10	(76.130)	= 76.130 deg. F
temperature 11	(76.190)	= 76.190 deg. F
temperature 12	(76.170)	= 76.170 deg. F
temperature 13	(75.980)	= 75.980 deg. F
temperature 14	(75.570)	= 75.570 deg. F
temperature 15	(76.080)	= 76.080 deg. F
temperature 16	(75.730)	= 75.730 deg. F
temperature 17	(75.830)	= 75.830 deg. F
temperature 18	(75.330)	= 75.330 deg. F
temperature 19	(75.500)	= 75.500 deg. F
temperature 20	(75.050)	= 75.050 deg. F
temperature 21	(74.690)	= 74.690 deg. F
temperature 22	(74.220)	= 74.220 deg. F
temperature 23	(72.750)	= 72.750 deg. F
temperature 24	(76.000)	= 76.000 deg. F
dewpoint 1	(62.980)	= 62.980 deg. F , 0.2846 psia
dewpoint 2	(63.260)	= 63.260 deg. F , 0.2874 psia
dewpoint 3	(63.260)	= 63.260 deg. F , 0.2874 psia
dewpoint 4	(63.390)	= 63.390 deg. F , 0.2887 psia
dewpoint 5	(63.450)	= 63.450 deg. F , 0.2893 psia
dewpoint 6	(62.830)	= 62.830 deg. F , 0.2831 psia
pressure 1	(64.0326)	= 64.0326 psia
pressure 2	(64.0329)	= 64.0329 psia

weighted averages, volume and air mass

temperature	=	75.69399 deg. F
pressure	=	64.03290 psia
vapor pressure	=	0.28697 psia
volume	=	2649000 cu. ft.
dry air mass	=	851360.2 lbm



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

data set 4

time = 2345 date = 221

sensor	raw data	value
temperature 1	(75.880) =	75.880 deg. F
temperature 2	(75.890) =	75.890 deg. F
temperature 3	(75.980) =	75.980 deg. F
temperature 4	(75.970) =	75.970 deg. F
temperature 5	(76.010) =	76.010 deg. F
temperature 6	(76.100) =	76.100 deg. F
temperature 7	(75.890) =	75.890 deg. F
temperature 8	(76.050) =	76.050 deg. F
temperature 9	(76.120) =	76.120 deg. F
temperature 10	(76.110) =	76.110 deg. F
temperature 11	(76.160) =	76.160 deg. F
temperature 12	(76.220) =	76.220 deg. F
temperature 13	(75.960) =	75.960 deg. F
temperature 14	(75.540) =	75.540 deg. F
temperature 15	(76.060) =	76.060 deg. F
temperature 16	(75.650) =	75.650 deg. F
temperature 17	(75.770) =	75.770 deg. F
temperature 18	(75.320) =	75.320 deg. F
temperature 19	(75.470) =	75.470 deg. F
temperature 20	(75.050) =	75.050 deg. F
temperature 21	(74.680) =	74.680 deg. F
temperature 22	(74.220) =	74.220 deg. F
temperature 23	(72.750) =	72.750 deg. F
temperature 24	(75.970) =	75.970 deg. F
dewpoint 1	(62.960) =	62.960 deg. F , 0.2844 psia
dewpoint 2	(63.250) =	63.250 deg. F , 0.2873 psia
dewpoint 3	(63.260) =	63.260 deg. F , 0.2874 psia
dewpoint 4	(63.380) =	63.380 deg. F , 0.2886 psia
dewpoint 5	(63.410) =	63.410 deg. F , 0.2889 psia
dewpoint 6	(63.200) =	63.200 deg. F , 0.2868 psia
pressure 1	(64.0295) =	64.0295 psia
pressure 2	(64.0297) =	64.0297 psia

weighted averages, volume and air mass

temperature	=	75.67826 deg. F
pressure	=	64.02970 psia
vapor pressure	=	0.28728 psia
volume	=	2649000 cu. ft.
dry air mass	=	851338.3 lbm



PVNGS UNIT 1-1990-ILRT-VERIFICATION STABILIZATION

data set 5

time = 0 date = 222

sensor	raw data	value
temperature 1 (75.870)	=	75.870 deg. F
temperature 2 (75.870)	=	75.870 deg. F
temperature 3 (75.950)	=	75.950 deg. F
temperature 4 (75.910)	=	75.910 deg. F
temperature 5 (75.980)	=	75.980 deg. F
temperature 6 (76.080)	=	76.080 deg. F
temperature 7 (75.860)	=	75.860 deg. F
temperature 8 (75.990)	=	75.990 deg. F
temperature 9 (76.120)	=	76.120 deg. F
temperature 10 (76.080)	=	76.080 deg. F
temperature 11 (76.110)	=	76.110 deg. F
temperature 12 (76.150)	=	76.150 deg. F
temperature 13 (75.950)	=	75.950 deg. F
temperature 14 (75.520)	=	75.520 deg. F
temperature 15 (76.040)	=	76.040 deg. F
temperature 16 (75.640)	=	75.640 deg. F
temperature 17 (75.790)	=	75.790 deg. F
temperature 18 (75.300)	=	75.300 deg. F
temperature 19 (75.460)	=	75.460 deg. F
temperature 20 (75.020)	=	75.020 deg. F
temperature 21 (74.670)	=	74.670 deg. F
temperature 22 (74.210)	=	74.210 deg. F
temperature 23 (72.750)	=	72.750 deg. F
temperature 24 (75.960)	=	75.960 deg. F
dewpoint 1 (62.830)	=	62.830 deg. F , 0.2831 psia
dewpoint 2 (63.240)	=	63.240 deg. F , 0.2872 psia
dewpoint 3 (63.250)	=	63.250 deg. F , 0.2873 psia
dewpoint 4 (63.370)	=	63.370 deg. F , 0.2885 psia
dewpoint 5 (63.380)	=	63.380 deg. F , 0.2886 psia
dewpoint 6 (63.070)	=	63.070 deg. F , 0.2855 psia
pressure 1 (64.0261)	=	64.0261 psia
pressure 2 (64.0264)	=	64.0264 psia

weighted averages, volume and air mass

temperature	=	75.65404 deg. F
pressure	=	64.02640 psia
vapor pressure	=	0.28681 psia
volume	=	2649000 cu. ft.
dry air mass	=	851339.0 lbm



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix III

VERIFICATION

DATA SET



FVNGS UNIT I-1990 ILRT-VERIFICATION

DATA SUMMARY REPORT

data set	time	date	temperature deg F	pressure psia	vapor pressure psia	dry air mass lbm
1	0	222	75.6540	64.0264	0.2868	851339.0
2	15	222	75.6351	64.0233	0.2870	851324.9
3	30	222	75.6211	64.0202	0.2864	851313.5
4	45	222	75.5963	64.0168	0.2867	851303.9
5	100	222	75.5799	64.0136	0.2867	851287.3
6	115	222	75.5598	64.0108	0.2862	851289.1
7	130	222	75.5414	64.0078	0.2862	851277.3
8	145	222	75.5272	64.0048	0.2859	851264.9
9	200	222	75.5032	64.0020	0.2860	851264.2
10	215	222	75.4883	63.9992	0.2859	851251.5
11	230	222	75.4709	63.9964	0.2862	851237.9
12	245	222	75.4496	63.9935	0.2853	851245.3
13	300	222	75.4405	63.9907	0.2850	851226.5
14	315	222	75.4243	63.9880	0.2855	851208.3
15	330	222	75.4066	63.9852	0.2853	851202.8
16	345	222	75.3941	63.9825	0.2846	851194.9
17	400	222	75.3821	63.9800	0.2850	851175.9



PVNGS UNIT 1-1990 ILRT-VERIFICATION

data set 1

time = 0 date = 222

sensor		raw data		value	
temperature	1	(75.870)	=	75.870	deg. F
temperature	2	(75.870)	=	75.870	deg. F
temperature	3	(75.950)	=	75.950	deg. F
temperature	4	(75.910)	=	75.910	deg. F
temperature	5	(75.980)	=	75.980	deg. F
temperature	6	(76.080)	=	76.080	deg. F
temperature	7	(75.860)	=	75.860	deg. F
temperature	8	(75.990)	=	75.990	deg. F
temperature	9	(76.120)	=	76.120	deg. F
temperature	10	(76.080)	=	76.080	deg. F
temperature	11	(76.110)	=	76.110	deg. F
temperature	12	(76.150)	=	76.150	deg. F
temperature	13	(75.950)	=	75.950	deg. F
temperature	14	(75.520)	=	75.520	deg. F
temperature	15	(76.040)	=	76.040	deg. F
temperature	16	(75.640)	=	75.640	deg. F
temperature	17	(75.790)	=	75.790	deg. F
temperature	18	(75.300)	=	75.300	deg. F
temperature	19	(75.460)	=	75.460	deg. F
temperature	20	(75.020)	=	75.020	deg. F
temperature	21	(74.670)	=	74.670	deg. F
temperature	22	(74.210)	=	74.210	deg. F
temperature	23	(72.750)	=	72.750	deg. F
temperature	24	(75.960)	=	75.960	deg. F
dewpoint	1	(62.830)	=	62.830	deg. F , 0.2831 psia
dewpoint	2	(63.240)	=	63.240	deg. F , 0.2872 psia
dewpoint	3	(63.250)	=	63.250	deg. F , 0.2873 psia
dewpoint	4	(63.370)	=	63.370	deg. F , 0.2885 psia
dewpoint	5	(63.380)	=	63.380	deg. F , 0.2886 psia
dewpoint	6	(63.070)	=	63.070	deg. F , 0.2855 psia
pressure	1	(64.0261)	=	64.0261	psia
pressure	2	(64.0264)	=	64.0264	psia

weighted averages, volume and air mass

temperature	=	75.65404	deg. F
pressure	=	64.02640	psia
vapor pressure	=	0.28681	psia
volume	=	2649000	cu. ft.
dry air mass	=	851339.0	lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 2

time = 15 date = 222

sensor	raw data	value
temperature 1 (75.850)	=	75.850 deg. F
temperature 2 (75.830)	=	75.830 deg. F
temperature 3 (75.920)	=	75.920 deg. F
temperature 4 (75.880)	=	75.880 deg. F
temperature 5 (75.980)	=	75.980 deg. F
temperature 6 (76.080)	=	76.080 deg. F
temperature 7 (75.860)	=	75.860 deg. F
temperature 8 (75.950)	=	75.950 deg. F
temperature 9 (76.080)	=	76.080 deg. F
temperature 10 (76.070)	=	76.070 deg. F
temperature 11 (76.080)	=	76.080 deg. F
temperature 12 (76.140)	=	76.140 deg. F
temperature 13 (75.910)	=	75.910 deg. F
temperature 14 (75.490)	=	75.490 deg. F
temperature 15 (76.010)	=	76.010 deg. F
temperature 16 (75.650)	=	75.650 deg. F
temperature 17 (75.770)	=	75.770 deg. F
temperature 18 (75.290)	=	75.290 deg. F
temperature 19 (75.440)	=	75.440 deg. F
temperature 20 (74.990)	=	74.990 deg. F
temperature 21 (74.650)	=	74.650 deg. F
temperature 22 (74.210)	=	74.210 deg. F
temperature 23 (72.760)	=	72.760 deg. F
temperature 24 (75.940)	=	75.940 deg. F
dewpoint 1 (63.060)	=	63.060 deg. F , 0.2854 psia
dewpoint 2 (63.240)	=	63.240 deg. F , 0.2872 psia
dewpoint 3 (63.160)	=	63.160 deg. F , 0.2864 psia
dewpoint 4 (63.360)	=	63.360 deg. F , 0.2884 psia
dewpoint 5 (63.370)	=	63.370 deg. F , 0.2885 psia
dewpoint 6 (63.120)	=	63.120 deg. F , 0.2860 psia
pressure 1 (64.0223)	=	64.0223 psia
pressure 2 (64.0233)	=	64.0233 psia

weighted averages, volume and air mass

temperature	=	75.63506 deg. F
pressure	=	64.02330 psia
vapor pressure	=	0.28703 psia
volume	=	2649000 cu. ft.
dry air mass	=	851324.9 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 3

time = 30 date = 222

sensor	raw data	value
temperature 1	(75.820) =	75.820 deg. F
temperature 2	(75.820) =	75.820 deg. F
temperature 3	(75.910) =	75.910 deg. F
temperature 4	(75.900) =	75.900 deg. F
temperature 5	(75.940) =	75.940 deg. F
temperature 6	(76.040) =	76.040 deg. F
temperature 7	(75.840) =	75.840 deg. F
temperature 8	(75.980) =	75.980 deg. F
temperature 9	(76.050) =	76.050 deg. F
temperature 10	(76.050) =	76.050 deg. F
temperature 11	(76.100) =	76.100 deg. F
temperature 12	(76.130) =	76.130 deg. F
temperature 13	(75.900) =	75.900 deg. F
temperature 14	(75.470) =	75.470 deg. F
temperature 15	(75.990) =	75.990 deg. F
temperature 16	(75.590) =	75.590 deg. F
temperature 17	(75.760) =	75.760 deg. F
temperature 18	(75.280) =	75.280 deg. F
temperature 19	(75.430) =	75.430 deg. F
temperature 20	(74.970) =	74.970 deg. F
temperature 21	(74.640) =	74.640 deg. F
temperature 22	(74.200) =	74.200 deg. F
temperature 23	(72.760) =	72.760 deg. F
temperature 24	(75.920) =	75.920 deg. F
dewpoint 1	(62.670) =	62.670 deg. F , 0.2815 psia
dewpoint 2	(63.200) =	63.200 deg. F , 0.2868 psia
dewpoint 3	(63.230) =	63.230 deg. F , 0.2871 psia
dewpoint 4	(63.340) =	63.340 deg. F , 0.2882 psia
dewpoint 5	(63.370) =	63.370 deg. F , 0.2885 psia
dewpoint 6	(63.130) =	63.130 deg. F , 0.2861 psia
pressure 1	(64.0197) =	64.0197 psia
pressure 2	(64.0202) =	64.0202 psia

weighted averages, volume and air mass

temperature	=	75.62113 deg. F
pressure	=	64.02020 psia
vapor pressure	=	0.28644 psia
volume	=	2649000 cu. ft.
dry air mass	=	851313.5 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 4

time = 45 date = 222

sensor	raw data	value
temperature 1	(75.790) =	75.790 deg. F
temperature 2	(75.800) =	75.800 deg. F
temperature 3	(75.840) =	75.840 deg. F
temperature 4	(75.870) =	75.870 deg. F
temperature 5	(75.890) =	75.890 deg. F
temperature 6	(76.000) =	76.000 deg. F
temperature 7	(75.820) =	75.820 deg. F
temperature 8	(75.980) =	75.980 deg. F
temperature 9	(76.030) =	76.030 deg. F
temperature 10	(76.010) =	76.010 deg. F
temperature 11	(76.060) =	76.060 deg. F
temperature 12	(76.100) =	76.100 deg. F
temperature 13	(75.860) =	75.860 deg. F
temperature 14	(75.450) =	75.450 deg. F
temperature 15	(75.970) =	75.970 deg. F
temperature 16	(75.610) =	75.610 deg. F
temperature 17	(75.730) =	75.730 deg. F
temperature 18	(75.260) =	75.260 deg. F
temperature 19	(75.410) =	75.410 deg. F
temperature 20	(74.950) =	74.950 deg. F
temperature 21	(74.640) =	74.640 deg. F
temperature 22	(74.200) =	74.200 deg. F
temperature 23	(72.760) =	72.760 deg. F
temperature 24	(75.880) =	75.880 deg. F
dewpoint 1	(62.810) =	62.810 deg. F , 0.2829 psia
dewpoint 2	(63.200) =	63.200 deg. F , 0.2868 psia
dewpoint 3	(63.260) =	63.260 deg. F , 0.2874 psia
dewpoint 4	(63.320) =	63.320 deg. F , 0.2880 psia
dewpoint 5	(63.360) =	63.360 deg. F , 0.2884 psia
dewpoint 6	(63.160) =	63.160 deg. F , 0.2864 psia
pressure 1	(64.0164) =	64.0164 psia
pressure 2	(64.0168) =	64.0168 psia

weighted averages, volume and air mass

temperature	=	75.59632 deg. F
pressure	=	64.01680 psia
vapor pressure	=	0.28671 psia
volume	=	2649000 cu. ft.
dry air mass	=	851303.9 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 5

time = 100 date = 222

sensor	raw data	value
temperature 1	(75.790) =	75.790 deg. F
temperature 2	(75.770) =	75.770 deg. F
temperature 3	(75.850) =	75.850 deg. F
temperature 4	(75.830) =	75.830 deg. F
temperature 5	(75.910) =	75.910 deg. F
temperature 6	(76.010) =	76.010 deg. F
temperature 7	(75.790) =	75.790 deg. F
temperature 8	(75.940) =	75.940 deg. F
temperature 9	(76.030) =	76.030 deg. F
temperature 10	(75.970) =	75.970 deg. F
temperature 11	(76.050) =	76.050 deg. F
temperature 12	(76.060) =	76.060 deg. F
temperature 13	(75.840) =	75.840 deg. F
temperature 14	(75.430) =	75.430 deg. F
temperature 15	(75.950) =	75.950 deg. F
temperature 16	(75.560) =	75.560 deg. F
temperature 17	(75.690) =	75.690 deg. F
temperature 18	(75.270) =	75.270 deg. F
temperature 19	(75.400) =	75.400 deg. F
temperature 20	(74.950) =	74.950 deg. F
temperature 21	(74.620) =	74.620 deg. F
temperature 22	(74.200) =	74.200 deg. F
temperature 23	(72.760) =	72.760 deg. F
temperature 24	(75.870) =	75.870 deg. F
dewpoint 1	(62.970) =	62.970 deg. F , 0.2845 psia
dewpoint 2	(63.160) =	63.160 deg. F , 0.2864 psia
dewpoint 3	(63.180) =	63.180 deg. F , 0.2866 psia
dewpoint 4	(63.320) =	63.320 deg. F , 0.2880 psia
dewpoint 5	(63.360) =	63.360 deg. F , 0.2884 psia
dewpoint 6	(63.150) =	63.150 deg. F , 0.2863 psia
pressure 1	(64.0133) =	64.0133 psia
pressure 2	(64.0136) =	64.0136 psia

weighted averages, volume and air mass

temperature	=	75.57987 deg. F
pressure	=	64.01360 psia
vapor pressure	=	0.28672 psia
volume	=	2649000 cu. ft.
dry air mass	=	851287.3 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 6

time = 115 date = 222

sensor	raw data	value
temperature 1	(75.760) =	75.760 deg. F
temperature 2	(75.760) =	75.760 deg. F
temperature 3	(75.820) =	75.820 deg. F
temperature 4	(75.820) =	75.820 deg. F
temperature 5	(75.880) =	75.880 deg. F
temperature 6	(75.980) =	75.980 deg. F
temperature 7	(75.780) =	75.780 deg. F
temperature 8	(75.900) =	75.900 deg. F
temperature 9	(75.980) =	75.980 deg. F
temperature 10	(75.970) =	75.970 deg. F
temperature 11	(75.980) =	75.980 deg. F
temperature 12	(76.080) =	76.080 deg. F
temperature 13	(75.830) =	75.830 deg. F
temperature 14	(75.410) =	75.410 deg. F
temperature 15	(75.940) =	75.940 deg. F
temperature 16	(75.530) =	75.530 deg. F
temperature 17	(75.670) =	75.670 deg. F
temperature 18	(75.240) =	75.240 deg. F
temperature 19	(75.390) =	75.390 deg. F
temperature 20	(74.940) =	74.940 deg. F
temperature 21	(74.600) =	74.600 deg. F
temperature 22	(74.200) =	74.200 deg. F
temperature 23	(72.760) =	72.760 deg. F
temperature 24	(75.850) =	75.850 deg. F
dewpoint 1	(62.710) =	62.710 deg. F , 0.2819 psia
dewpoint 2	(63.150) =	63.150 deg. F , 0.2863 psia
dewpoint 3	(63.150) =	63.150 deg. F , 0.2863 psia
dewpoint 4	(63.300) =	63.300 deg. F , 0.2878 psia
dewpoint 5	(63.320) =	63.320 deg. F , 0.2880 psia
dewpoint 6	(63.190) =	63.190 deg. F , 0.2867 psia
pressure 1	(64.0104) =	64.0104 psia
pressure 2	(64.0108) =	64.0108 psia

weighted averages, volume and air mass

temperature	=	75.55978 deg. F
pressure	=	64.01080 psia
vapor pressure	=	0.28617 psia
volume	=	2649000 cu. ft.
dry air mass	=	851289.1 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 7

time = 130 date = 222

sensor	raw data	value
temperature 1	(75.720) =	75.720 deg. F
temperature 2	(75.750) =	75.750 deg. F
temperature 3	(75.800) =	75.800 deg. F
temperature 4	(75.780) =	75.780 deg. F
temperature 5	(75.860) =	75.860 deg. F
temperature 6	(75.980) =	75.980 deg. F
temperature 7	(75.760) =	75.760 deg. F
temperature 8	(75.840) =	75.840 deg. F
temperature 9	(75.980) =	75.980 deg. F
temperature 10	(75.940) =	75.940 deg. F
temperature 11	(75.980) =	75.980 deg. F
temperature 12	(76.060) =	76.060 deg. F
temperature 13	(75.810) =	75.810 deg. F
temperature 14	(75.390) =	75.390 deg. F
temperature 15	(75.920) =	75.920 deg. F
temperature 16	(75.490) =	75.490 deg. F
temperature 17	(75.670) =	75.670 deg. F
temperature 18	(75.240) =	75.240 deg. F
temperature 19	(75.370) =	75.370 deg. F
temperature 20	(74.910) =	74.910 deg. F
temperature 21	(74.600) =	74.600 deg. F
temperature 22	(74.200) =	74.200 deg. F
temperature 23	(72.760) =	72.760 deg. F
temperature 24	(75.830) =	75.830 deg. F
dewpoint 1	(63.140) =	63.140 deg. F , 0.2862 psia
dewpoint 2	(63.170) =	63.170 deg. F , 0.2865 psia
dewpoint 3	(63.150) =	63.150 deg. F , 0.2863 psia
dewpoint 4	(63.280) =	63.280 deg. F , 0.2876 psia
dewpoint 5	(63.300) =	63.300 deg. F , 0.2878 psia
dewpoint 6	(62.690) =	62.690 deg. F , 0.2817 psia
pressure 1	(64.0074) =	64.0074 psia
pressure 2	(64.0078) =	64.0078 psia

weighted averages, volume and air mass

temperature	=	75.54140 deg. F
pressure	=	64.00780 psia
vapor pressure	=	0.28624 psia
volume	=	2649000 cu. ft.
dry air mass	=	851277.3 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 8

time = 145 date = 222

sensor	raw data	value
temperature 1	(75.710)	= 75.710 deg. F
temperature 2	(75.710)	= 75.710 deg. F
temperature 3	(75.800)	= 75.800 deg. F
temperature 4	(75.760)	= 75.760 deg. F
temperature 5	(75.840)	= 75.840 deg. F
temperature 6	(75.980)	= 75.980 deg. F
temperature 7	(75.730)	= 75.730 deg. F
temperature 8	(75.860)	= 75.860 deg. F
temperature 9	(75.960)	= 75.960 deg. F
temperature 10	(75.920)	= 75.920 deg. F
temperature 11	(75.970)	= 75.970 deg. F
temperature 12	(76.030)	= 76.030 deg. F
temperature 13	(75.790)	= 75.790 deg. F
temperature 14	(75.380)	= 75.380 deg. F
temperature 15	(75.900)	= 75.900 deg. F
temperature 16	(75.500)	= 75.500 deg. F
temperature 17	(75.640)	= 75.640 deg. F
temperature 18	(75.200)	= 75.200 deg. F
temperature 19	(75.370)	= 75.370 deg. F
temperature 20	(74.890)	= 74.890 deg. F
temperature 21	(74.570)	= 74.570 deg. F
temperature 22	(74.190)	= 74.190 deg. F
temperature 23	(72.780)	= 72.780 deg. F
temperature 24	(75.810)	= 75.810 deg. F
dewpoint 1	(62.820)	= 62.820 deg. F , 0.2830 psia
dewpoint 2	(63.100)	= 63.100 deg. F , 0.2858 psia
dewpoint 3	(63.130)	= 63.130 deg. F , 0.2861 psia
dewpoint 4	(63.260)	= 63.260 deg. F , 0.2874 psia
dewpoint 5	(63.290)	= 63.290 deg. F , 0.2877 psia
dewpoint 6	(63.000)	= 63.000 deg. F , 0.2848 psia
pressure 1	(64.0043)	= 64.0043 psia
pressure 2	(64.0048)	= 64.0048 psia

weighted averages, volume and air mass

temperature	=	75.52718 deg. F
pressure	=	64.00480 psia
vapor pressure	=	0.28587 psia
volume	=	2649000 cu. ft.
dry air mass	=	851264.9 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 9

time = 200 date = 222

sensor	raw data	value
temperature 1	(75.700)	= 75.700 deg. F
temperature 2	(75.690)	= 75.690 deg. F
temperature 3	(75.750)	= 75.750 deg. F
temperature 4	(75.730)	= 75.730 deg. F
temperature 5	(75.810)	= 75.810 deg. F
temperature 6	(75.920)	= 75.920 deg. F
temperature 7	(75.700)	= 75.700 deg. F
temperature 8	(75.820)	= 75.820 deg. F
temperature 9	(75.930)	= 75.930 deg. F
temperature 10	(75.910)	= 75.910 deg. F
temperature 11	(75.940)	= 75.940 deg. F
temperature 12	(75.990)	= 75.990 deg. F
temperature 13	(75.770)	= 75.770 deg. F
temperature 14	(75.350)	= 75.350 deg. F
temperature 15	(75.870)	= 75.870 deg. F
temperature 16	(75.510)	= 75.510 deg. F
temperature 17	(75.640)	= 75.640 deg. F
temperature 18	(75.180)	= 75.180 deg. F
temperature 19	(75.350)	= 75.350 deg. F
temperature 20	(74.870)	= 74.870 deg. F
temperature 21	(74.580)	= 74.580 deg. F
temperature 22	(74.180)	= 74.180 deg. F
temperature 23	(72.760)	= 72.760 deg. F
temperature 24	(75.800)	= 75.800 deg. F
dewpoint 1	(62.880)	= 62.880 deg. F , 0.2836 psia
dewpoint 2	(63.090)	= 63.090 deg. F , 0.2857 psia
dewpoint 3	(63.160)	= 63.160 deg. F , 0.2864 psia
dewpoint 4	(63.260)	= 63.260 deg. F , 0.2874 psia
dewpoint 5	(63.270)	= 63.270 deg. F , 0.2875 psia
dewpoint 6	(63.000)	= 63.000 deg. F , 0.2848 psia
pressure 1	(64.0014)	= 64.0014 psia
pressure 2	(64.0020)	= 64.0020 psia

weighted averages, volume and air mass

temperature	=	75.50318 deg. F
pressure	=	64.00200 psia
vapor pressure	=	0.28597 psia
volume	=	2649000 cu. ft.
dry air mass	=	851264.2 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 10

time = 215 date = 222

sensor	raw data	value
temperature 1	(75.680) =	75.680 deg. F
temperature 2	(75.680) =	75.680 deg. F
temperature 3	(75.750) =	75.750 deg. F
temperature 4	(75.720) =	75.720 deg. F
temperature 5	(75.790) =	75.790 deg. F
temperature 6	(75.910) =	75.910 deg. F
temperature 7	(75.680) =	75.680 deg. F
temperature 8	(75.810) =	75.810 deg. F
temperature 9	(75.910) =	75.910 deg. F
temperature 10	(75.890) =	75.890 deg. F
temperature 11	(75.930) =	75.930 deg. F
temperature 12	(75.970) =	75.970 deg. F
temperature 13	(75.750) =	75.750 deg. F
temperature 14	(75.340) =	75.340 deg. F
temperature 15	(75.860) =	75.860 deg. F
temperature 16	(75.450) =	75.450 deg. F
temperature 17	(75.600) =	75.600 deg. F
temperature 18	(75.190) =	75.190 deg. F
temperature 19	(75.340) =	75.340 deg. F
temperature 20	(74.850) =	74.850 deg. F
temperature 21	(74.560) =	74.560 deg. F
temperature 22	(74.180) =	74.180 deg. F
temperature 23	(72.780) =	72.780 deg. F
temperature 24	(75.780) =	75.780 deg. F
dewpoint 1	(62.920) =	62.920 deg. F , 0.2840 psia
dewpoint 2	(63.100) =	63.100 deg. F , 0.2858 psia
dewpoint 3	(63.120) =	63.120 deg. F , 0.2860 psia
dewpoint 4	(63.230) =	63.230 deg. F , 0.2871 psia
dewpoint 5	(63.280) =	63.280 deg. F , 0.2876 psia
dewpoint 6	(62.970) =	62.970 deg. F , 0.2845 psia
pressure 1	(63.9985) =	63.9985 psia
pressure 2	(63.9992) =	63.9992 psia

weighted averages, volume and air mass

temperature	=	75.48827 deg. F
pressure	=	63.99920 psia
vapor pressure	=	0.28590 psia
volume	=	2649000 cu. ft.
dry air mass	=	851251.5 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 11

time = 230 date = 222

sensor	raw data	value
temperature 1	(75.660) =	75.660 deg. F
temperature 2	(75.640) =	75.640 deg. F
temperature 3	(75.700) =	75.700 deg. F
temperature 4	(75.680) =	75.680 deg. F
temperature 5	(75.770) =	75.770 deg. F
temperature 6	(75.870) =	75.870 deg. F
temperature 7	(75.690) =	75.690 deg. F
temperature 8	(75.830) =	75.830 deg. F
temperature 9	(75.900) =	75.900 deg. F
temperature 10	(75.850) =	75.850 deg. F
temperature 11	(75.910) =	75.910 deg. F
temperature 12	(75.970) =	75.970 deg. F
temperature 13	(75.720) =	75.720 deg. F
temperature 14	(75.320) =	75.320 deg. F
temperature 15	(75.840) =	75.840 deg. F
temperature 16	(75.460) =	75.460 deg. F
temperature 17	(75.600) =	75.600 deg. F
temperature 18	(75.150) =	75.150 deg. F
temperature 19	(75.310) =	75.310 deg. F
temperature 20	(74.840) =	74.840 deg. F
temperature 21	(74.550) =	74.550 deg. F
temperature 22	(74.180) =	74.180 deg. F
temperature 23	(72.780) =	72.780 deg. F
temperature 24	(75.760) =	75.760 deg. F
dewpoint 1	(62.900) =	62.900 deg. F , 0.2838 psia
dewpoint 2	(63.090) =	63.090 deg. F , 0.2857 psia
dewpoint 3	(63.110) =	63.110 deg. F , 0.2859 psia
dewpoint 4	(63.210) =	63.210 deg. F , 0.2869 psia
dewpoint 5	(63.250) =	63.250 deg. F , 0.2873 psia
dewpoint 6	(63.340) =	63.340 deg. F , 0.2882 psia
pressure 1	(63.9956) =	63.9956 psia
pressure 2	(63.9964) =	63.9964 psia

weighted averages, volume and air mass

temperature	=	75.47086 deg. F
pressure	=	63.99640 psia
vapor pressure	=	0.28619 psia
volume	=	2649000 cu. ft.
dry air mass	=	851237.9 lbm



WINGS UNIT 1-1990 ILRT-VERIFICATION

data set 11

time = 245 date = 222

sensor	raw data	value
temperature 1 (	75.630)	= 75.630 deg. F
temperature 2 (	75.620)	= 75.620 deg. F
temperature 3 (	75.690)	= 75.690 deg. F
temperature 4 (	75.670)	= 75.670 deg. F
temperature 5 (	75.780)	= 75.780 deg. F
temperature 6 (	75.870)	= 75.870 deg. F
temperature 7 (	75.660)	= 75.660 deg. F
temperature 8 (	75.780)	= 75.780 deg. F
temperature 9 (	75.860)	= 75.860 deg. F
temperature 10 (	75.860)	= 75.860 deg. F
temperature 11 (	75.890)	= 75.890 deg. F
temperature 12 (	75.940)	= 75.940 deg. F
temperature 13 (	75.710)	= 75.710 deg. F
temperature 14 (	75.290)	= 75.290 deg. F
temperature 15 (	75.810)	= 75.810 deg. F
temperature 16 (	75.400)	= 75.400 deg. F
temperature 17 (	75.550)	= 75.550 deg. F
temperature 18 (	75.120)	= 75.120 deg. F
temperature 19 (	75.300)	= 75.300 deg. F
temperature 20 (	74.830)	= 74.830 deg. F
temperature 21 (	74.530)	= 74.530 deg. F
temperature 22 (	74.170)	= 74.170 deg. F
temperature 23 (	72.770)	= 72.770 deg. F
temperature 24 (	75.740)	= 75.740 deg. F
dewpoint 1 (	62.940)	= 62.940 deg. F , 0.2842 psia
dewpoint 2 (	63.100)	= 63.100 deg. F , 0.2858 psia
dewpoint 3 (	63.070)	= 63.070 deg. F , 0.2855 psia
dewpoint 4 (	63.190)	= 63.190 deg. F , 0.2867 psia
dewpoint 5 (	63.250)	= 63.250 deg. F , 0.2873 psia
dewpoint 6 (	62.590)	= 62.590 deg. F , 0.2807 psia
pressure 1 (	63.9927)	= 63.9927 psia
pressure 2 (	63.9935)	= 63.9935 psia

weighted averages, volume and air mass

temperature	=	75.44960 deg. F
pressure	=	63.99350 psia
vapor pressure	=	0.28527 psia
volume	=	2649000 cu. ft.
dry air mass	=	851245.3 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 13

time = 300 date = 222

sensor	raw data	value
temperature 1	(75.590) =	75.590 deg. F
temperature 2	(75.610) =	75.610 deg. F
temperature 3	(75.700) =	75.700 deg. F
temperature 4	(75.650) =	75.650 deg. F
temperature 5	(75.720) =	75.720 deg. F
temperature 6	(75.860) =	75.860 deg. F
temperature 7	(75.620) =	75.620 deg. F
temperature 8	(75.770) =	75.770 deg. F
temperature 9	(75.860) =	75.860 deg. F
temperature 10	(75.810) =	75.810 deg. F
temperature 11	(75.900) =	75.900 deg. F
temperature 12	(75.930) =	75.930 deg. F
temperature 13	(75.710) =	75.710 deg. F
temperature 14	(75.270) =	75.270 deg. F
temperature 15	(75.820) =	75.820 deg. F
temperature 16	(75.420) =	75.420 deg. F
temperature 17	(75.570) =	75.570 deg. F
temperature 18	(75.140) =	75.140 deg. F
temperature 19	(75.300) =	75.300 deg. F
temperature 20	(74.810) =	74.810 deg. F
temperature 21	(74.530) =	74.530 deg. F
temperature 22	(74.160) =	74.160 deg. F
temperature 23	(72.790) =	72.790 deg. F
temperature 24	(75.720) =	75.720 deg. F
dewpoint 1	(62.580) =	62.580 deg. F , 0.2806 psia
dewpoint 2	(63.040) =	63.040 deg. F , 0.2852 psia
dewpoint 3	(63.080) =	63.080 deg. F , 0.2856 psia
dewpoint 4	(63.190) =	63.190 deg. F , 0.2867 psia
dewpoint 5	(63.210) =	63.210 deg. F , 0.2869 psia
dewpoint 6	(62.950) =	62.950 deg. F , 0.2843 psia
pressure 1	(63.9898) =	63.9898 psia
pressure 2	(63.9907) =	63.9907 psia

weighted averages, volume and air mass

temperature	=	75.44047 deg. F
pressure	=	63.99070 psia
vapor pressure	=	0.28496 psia
volume	=	2649000 cu. ft.
dry air mass	=	851226.5 lbm

PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 14

time = 315 date = 222

sensor	raw data	value
temperature 1	(75.610) =	75.610 deg. F
temperature 2	(75.590) =	75.590 deg. F
temperature 3	(75.690) =	75.690 deg. F
temperature 4	(75.650) =	75.650 deg. F
temperature 5	(75.720) =	75.720 deg. F
temperature 6	(75.830) =	75.830 deg. F
temperature 7	(75.610) =	75.610 deg. F
temperature 8	(75.760) =	75.760 deg. F
temperature 9	(75.830) =	75.830 deg. F
temperature 10	(75.770) =	75.770 deg. F
temperature 11	(75.880) =	75.880 deg. F
temperature 12	(75.930) =	75.930 deg. F
temperature 13	(75.670) =	75.670 deg. F
temperature 14	(75.250) =	75.250 deg. F
temperature 15	(75.790) =	75.790 deg. F
temperature 16	(75.400) =	75.400 deg. F
temperature 17	(75.580) =	75.580 deg. F
temperature 18	(75.100) =	75.100 deg. F
temperature 19	(75.290) =	75.290 deg. F
temperature 20	(74.770) =	74.770 deg. F
temperature 21	(74.510) =	74.510 deg. F
temperature 22	(74.170) =	74.170 deg. F
temperature 23	(72.780) =	72.780 deg. F
temperature 24	(75.710) =	75.710 deg. F
dewpoint 1	(62.820) =	62.820 deg. F , 0.2830 psia
dewpoint 2	(63.070) =	63.070 deg. F , 0.2855 psia
dewpoint 3	(63.050) =	63.050 deg. F , 0.2853 psia
dewpoint 4	(63.170) =	63.170 deg. F , 0.2865 psia
dewpoint 5	(63.190) =	63.190 deg. F , 0.2867 psia
dewpoint 6	(63.180) =	63.180 deg. F , 0.2866 psia
pressure 1	(63.9871) =	63.9871 psia
pressure 2	(63.9880) =	63.9880 psia

weighted averages, volume and air mass

temperature	=	75.42429 deg. F
pressure	=	63.98800 psia
vapor pressure	=	0.28555 psia
volume	=	2649000 cu. ft.
dry air mass	=	851208.3 lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 15

time = 330 date = 222

sensor		raw data		value	
temperature	1	(75.570)	=	75.570 deg.	F
temperature	2	(75.590)	=	75.590 deg.	F
temperature	3	(75.690)	=	75.690 deg.	F
temperature	4	(75.630)	=	75.630 deg.	F
temperature	5	(75.710)	=	75.710 deg.	F
temperature	6	(75.800)	=	75.800 deg.	F
temperature	7	(75.580)	=	75.580 deg.	F
temperature	8	(75.710)	=	75.710 deg.	F
temperature	9	(75.810)	=	75.810 deg.	F
temperature	10	(75.790)	=	75.790 deg.	F
temperature	11	(75.860)	=	75.860 deg.	F
temperature	12	(75.890)	=	75.890 deg.	F
temperature	13	(75.650)	=	75.650 deg.	F
temperature	14	(75.240)	=	75.240 deg.	F
temperature	15	(75.770)	=	75.770 deg.	F
temperature	16	(75.360)	=	75.360 deg.	F
temperature	17	(75.520)	=	75.520 deg.	F
temperature	18	(75.120)	=	75.120 deg.	F
temperature	19	(75.260)	=	75.260 deg.	F
temperature	20	(74.790)	=	74.790 deg.	F
temperature	21	(74.510)	=	74.510 deg.	F
temperature	22	(74.160)	=	74.160 deg.	F
temperature	23	(72.790)	=	72.790 deg.	F
temperature	24	(75.680)	=	75.680 deg.	F
dewpoint	1	(62.760)	=	62.760 deg.	F , 0.2824 psia
dewpoint	2	(63.060)	=	63.060 deg.	F , 0.2854 psia
dewpoint	3	(63.070)	=	63.070 deg.	F , 0.2855 psia
dewpoint	4	(63.170)	=	63.170 deg.	F , 0.2865 psia
dewpoint	5	(63.200)	=	63.200 deg.	F , 0.2868 psia
dewpoint	6	(62.990)	=	62.990 deg.	F , 0.2847 psia
pressure	1	(63.9845)	=	63.9845	psia
pressure	2	(63.9852)	=	63.9852	psia

weighted averages, volume and air mass

temperature	=	75.40665 deg.	F
pressure	=	63.98520	psia
vapor pressure	=	0.28526	psia
volume	=	2649000	cu. ft.
dry air mass	=	851202.8	lbm



PVNGS UNIT I-1990 ILRT-VERIFICATION

data set 16

time = 345 date = 222

sensor		raw data		value	
temperature	1	(75.550)	=	75.550 deg. F	
temperature	2	(75.560)	=	75.560 deg. F	
temperature	3	(75.650)	=	75.650 deg. F	
temperature	4	(75.600)	=	75.600 deg. F	
temperature	5	(75.680)	=	75.680 deg. F	
temperature	6	(75.800)	=	75.800 deg. F	
temperature	7	(75.590)	=	75.590 deg. F	
temperature	8	(75.710)	=	75.710 deg. F	
temperature	9	(75.800)	=	75.800 deg. F	
temperature	10	(75.760)	=	75.760 deg. F	
temperature	11	(75.840)	=	75.840 deg. F	
temperature	12	(75.880)	=	75.880 deg. F	
temperature	13	(75.650)	=	75.650 deg. F	
temperature	14	(75.230)	=	75.230 deg. F	
temperature	15	(75.760)	=	75.760 deg. F	
temperature	16	(75.360)	=	75.360 deg. F	
temperature	17	(75.500)	=	75.500 deg. F	
temperature	18	(75.100)	=	75.100 deg. F	
temperature	19	(75.260)	=	75.260 deg. F	
temperature	20	(74.770)	=	74.770 deg. F	
temperature	21	(74.500)	=	74.500 deg. F	
temperature	22	(74.150)	=	74.150 deg. F	
temperature	23	(72.800)	=	72.800 deg. F	
temperature	24	(75.680)	=	75.680 deg. F	
dewpoint	1	(62.460)	=	62.460 deg. F	, 0.2794 psia
dewpoint	2	(63.020)	=	63.020 deg. F	, 0.2850 psia
dewpoint	3	(63.050)	=	63.050 deg. F	, 0.2853 psia
dewpoint	4	(63.150)	=	63.150 deg. F	, 0.2863 psia
dewpoint	5	(63.170)	=	63.170 deg. F	, 0.2865 psia
dewpoint	6	(63.040)	=	63.040 deg. F	, 0.2852 psia
pressure	1	(63.9819)	=	63.9819 psia	
pressure	2	(63.9825)	=	63.9825 psia	

weighted averages, volume and air mass

temperature	=	75.39411 deg. F
pressure	=	63.98250 psia
vapor pressure	=	0.28465 psia
volume	=	2649000 cu. ft.
dry air mass	=	851194.9 lbm



PVN35 UNIT I-1990 ILRT-VERIFICATION

data set 17

time = 400 date = 222

sensor	raw data	value
temperature 1	(75.560) =	75.560 deg. F
temperature 2	(75.560) =	75.560 deg. F
temperature 3	(75.620) =	75.620 deg. F
temperature 4	(75.600) =	75.600 deg. F
temperature 5	(75.680) =	75.680 deg. F
temperature 6	(75.780) =	75.780 deg. F
temperature 7	(75.550) =	75.550 deg. F
temperature 8	(75.720) =	75.720 deg. F
temperature 9	(75.790) =	75.790 deg. F
temperature 10	(75.770) =	75.770 deg. F
temperature 11	(75.830) =	75.830 deg. F
temperature 12	(75.870) =	75.870 deg. F
temperature 13	(75.620) =	75.620 deg. F
temperature 14	(75.210) =	75.210 deg. F
temperature 15	(75.740) =	75.740 deg. F
temperature 16	(75.300) =	75.300 deg. F
temperature 17	(75.510) =	75.510 deg. F
temperature 18	(75.100) =	75.100 deg. F
temperature 19	(75.240) =	75.240 deg. F
temperature 20	(74.760) =	74.760 deg. F
temperature 21	(74.490) =	74.490 deg. F
temperature 22	(74.150) =	74.150 deg. F
temperature 23	(72.800) =	72.800 deg. F
temperature 24	(75.650) =	75.650 deg. F
dewpoint 1	(62.810) =	62.810 deg. F , 0.2829 psia
dewpoint 2	(63.050) =	63.050 deg. F , 0.2853 psia
dewpoint 3	(63.030) =	63.030 deg. F , 0.2851 psia
dewpoint 4	(63.130) =	63.130 deg. F , 0.2861 psia
dewpoint 5	(63.150) =	63.150 deg. F , 0.2863 psia
dewpoint 6	(62.910) =	62.910 deg. F , 0.2839 psia
pressure 1	(63.9790) =	63.9790 psia
pressure 2	(63.9800) =	63.9800 psia

weighted averages, volume and air mass

temperature	=	75.38205 deg. F
pressure	=	63.98000 psia
vapor pressure	=	0.28500 psia
volume	=	2649000 cu. ft.
dry air mass	=	851175.9 lbm



Palo Verde Nuclear Generating Station
1990 ILRT Final Report
Appendix IV

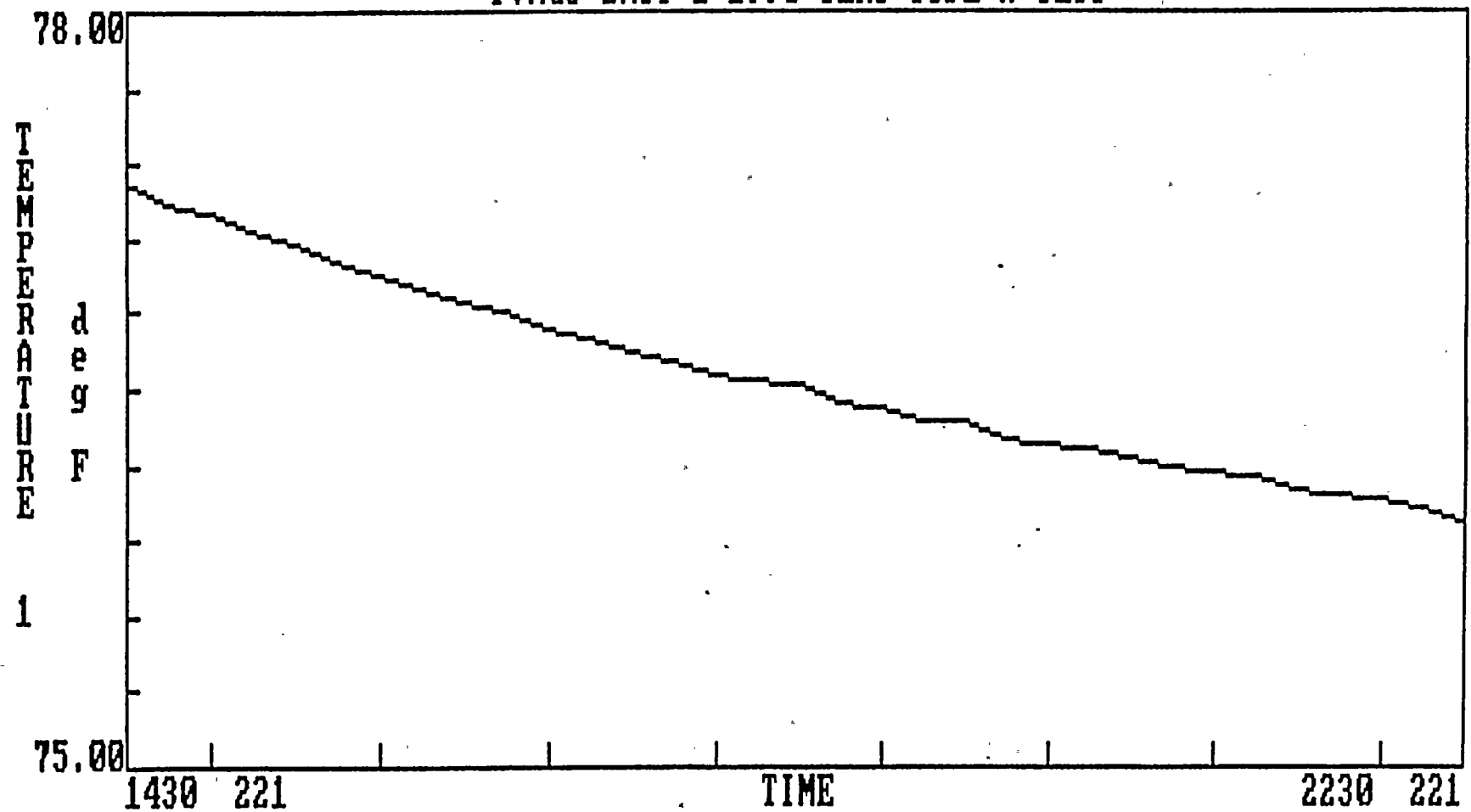
APPENDIX IV

TEMPERATURE PLOTS FOR DRYBULB AND DEWPOINT

SENSORS

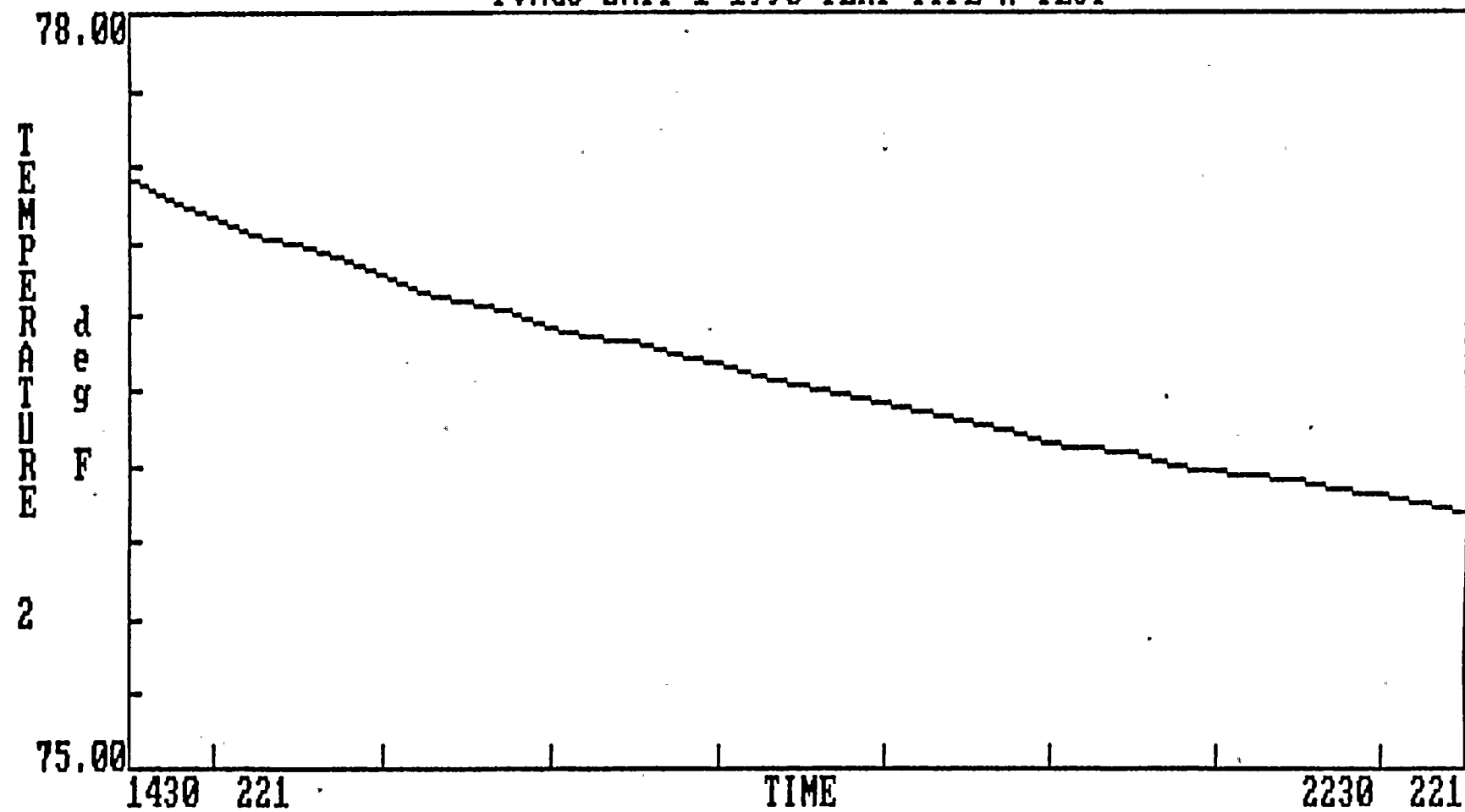


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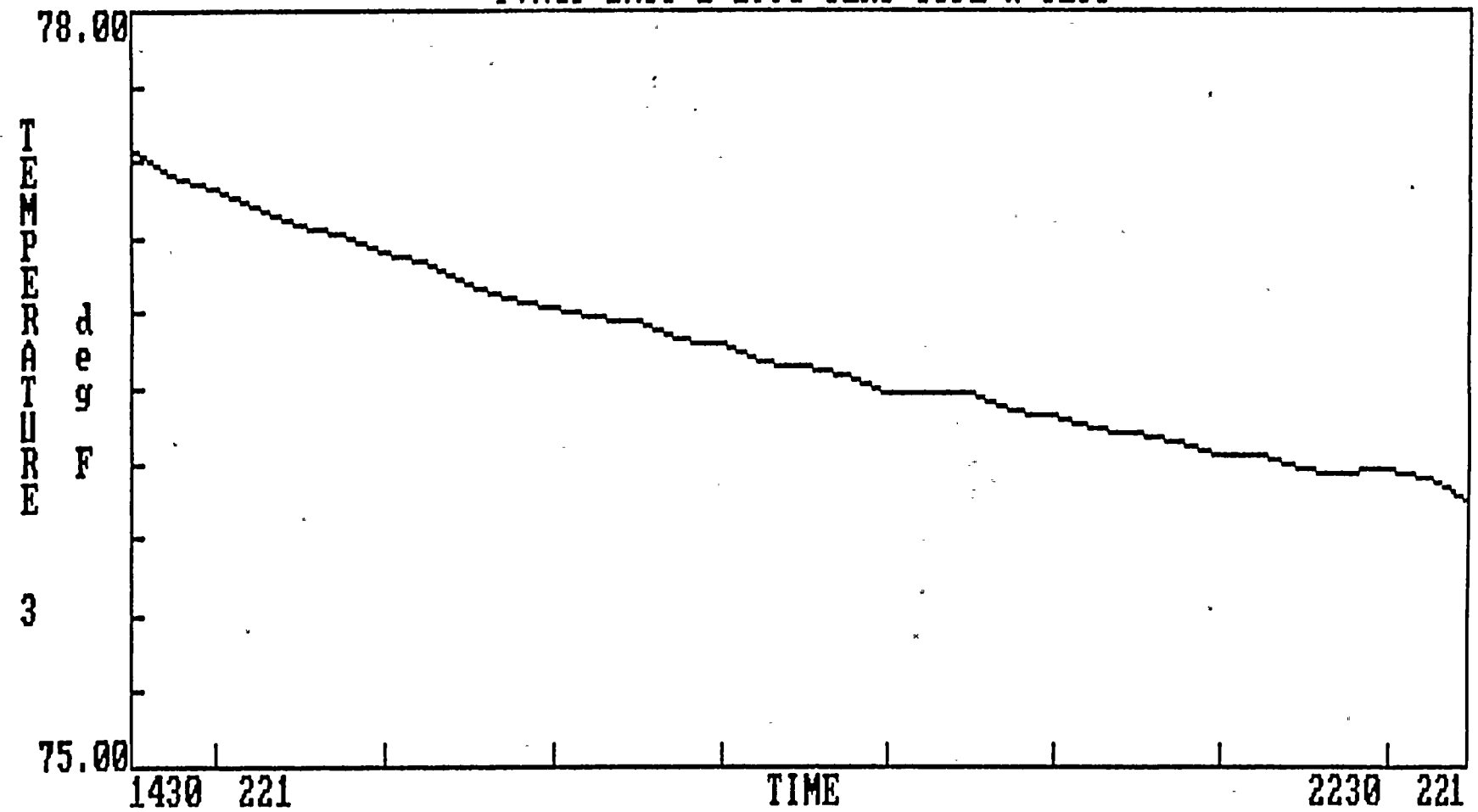


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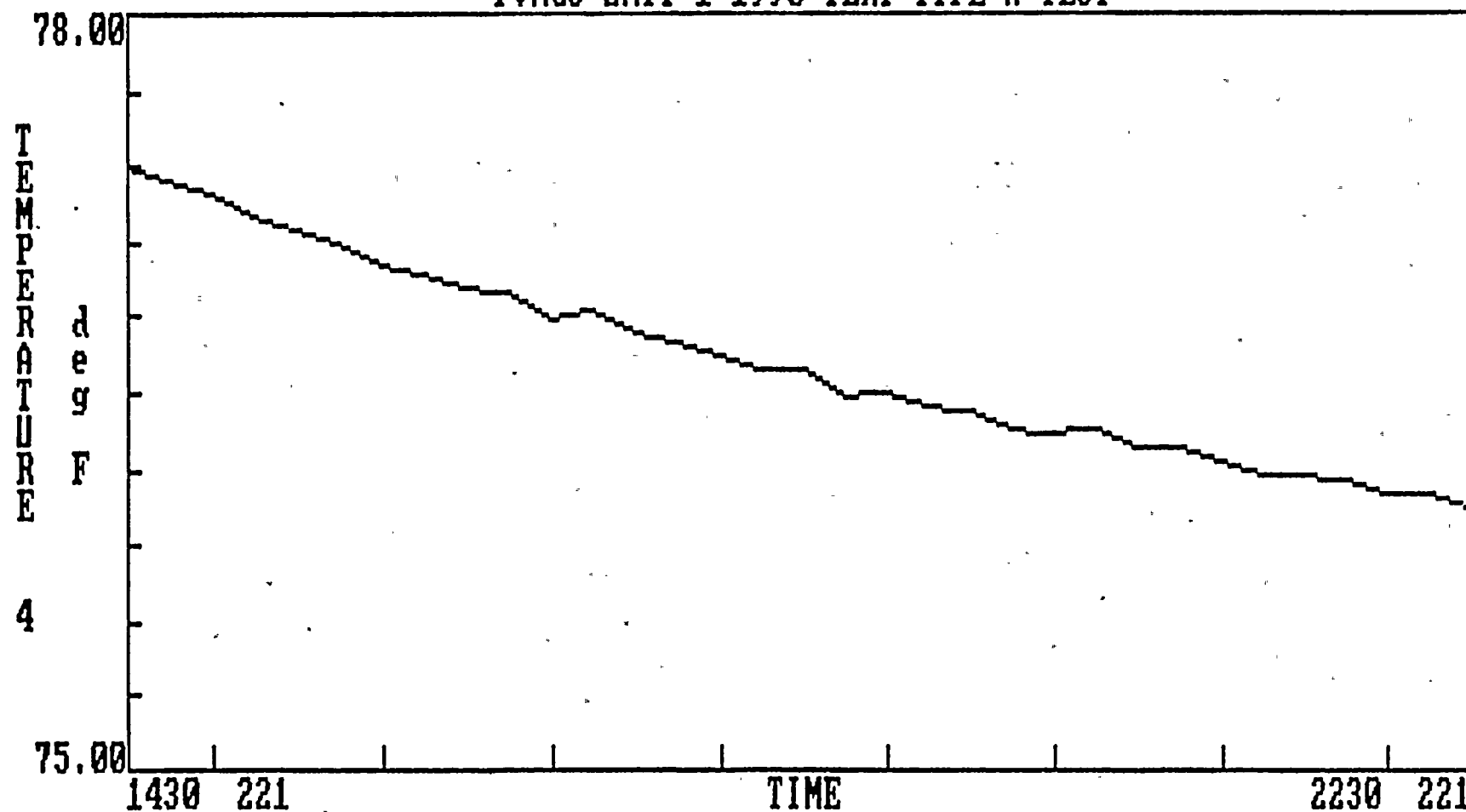


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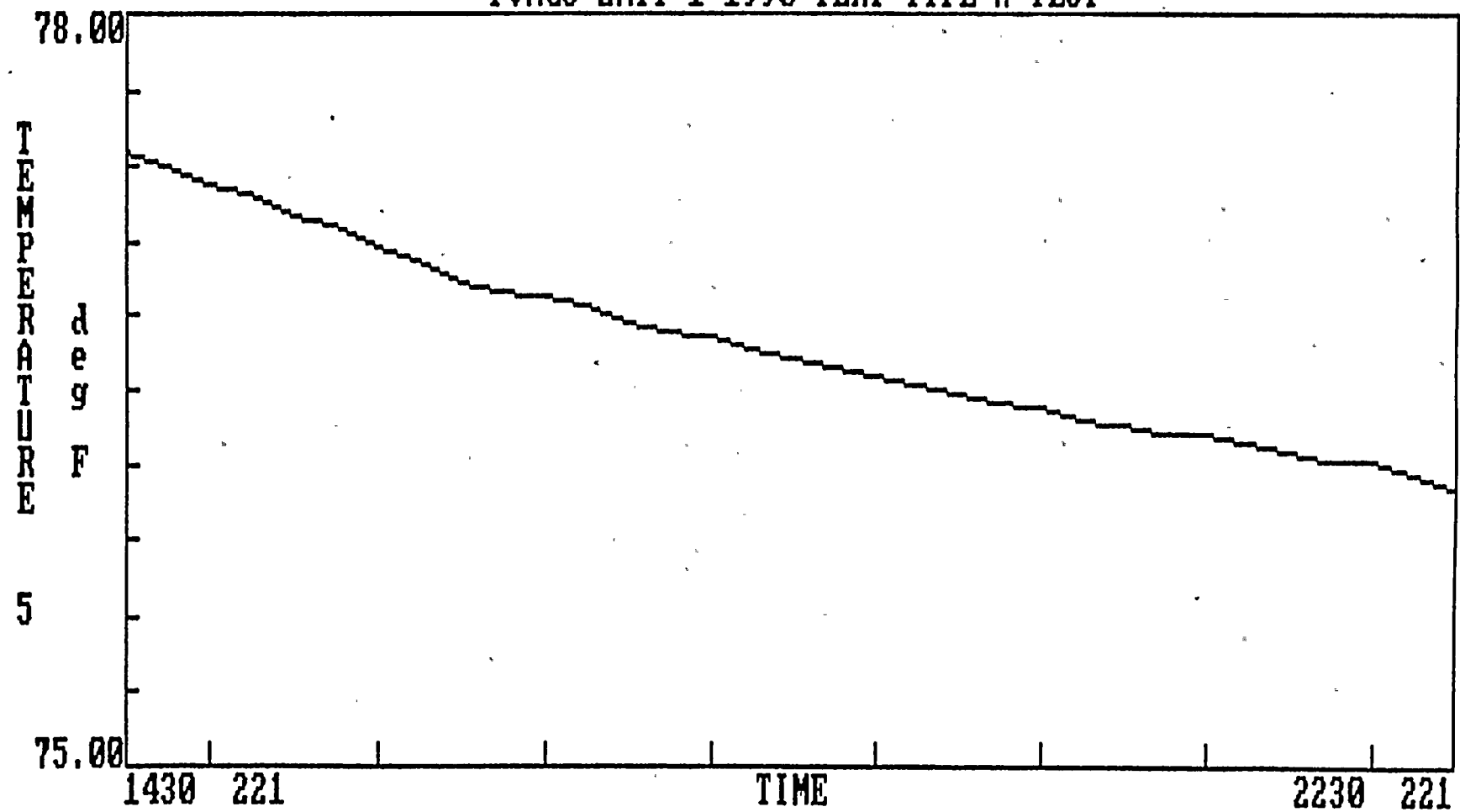


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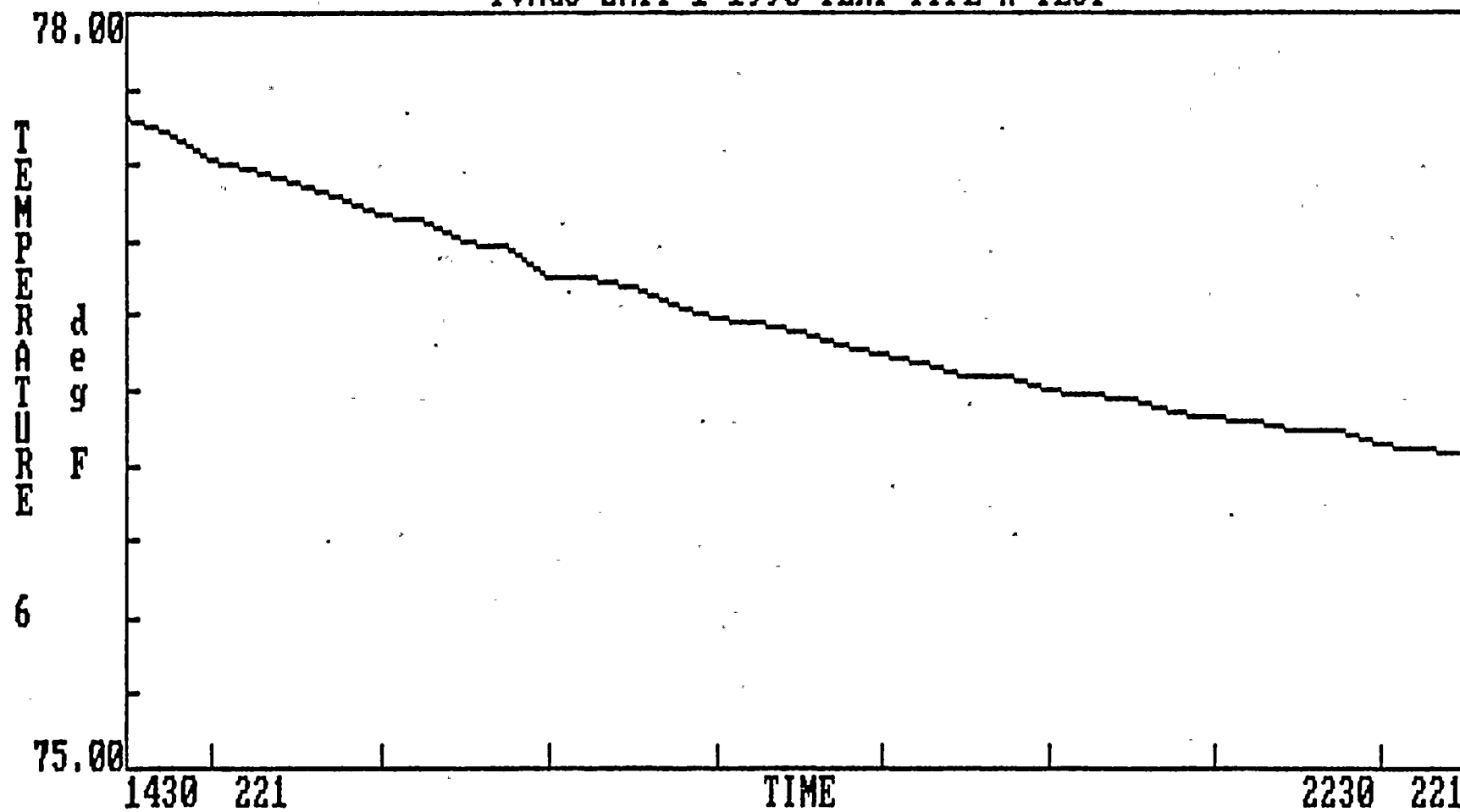


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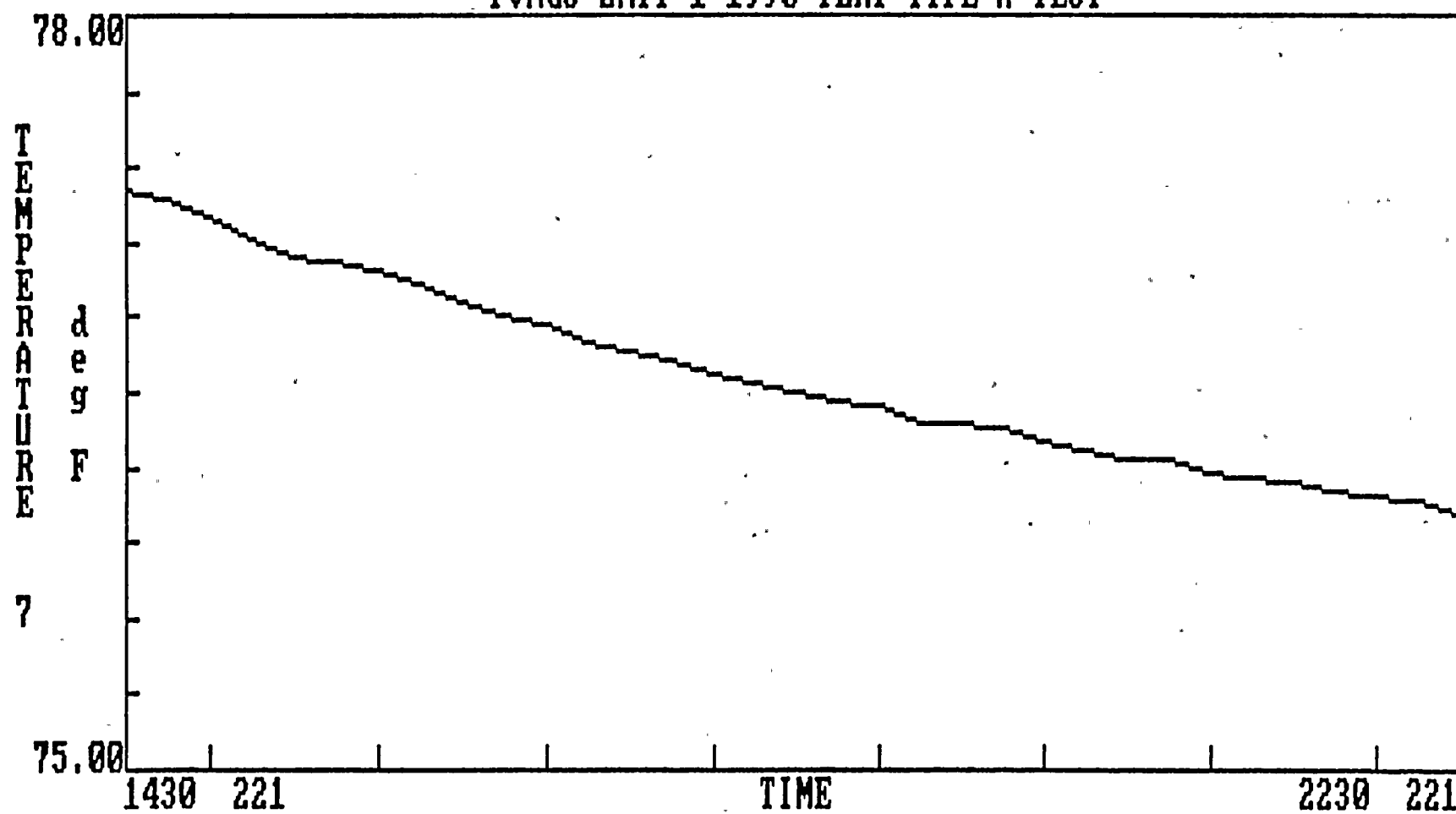


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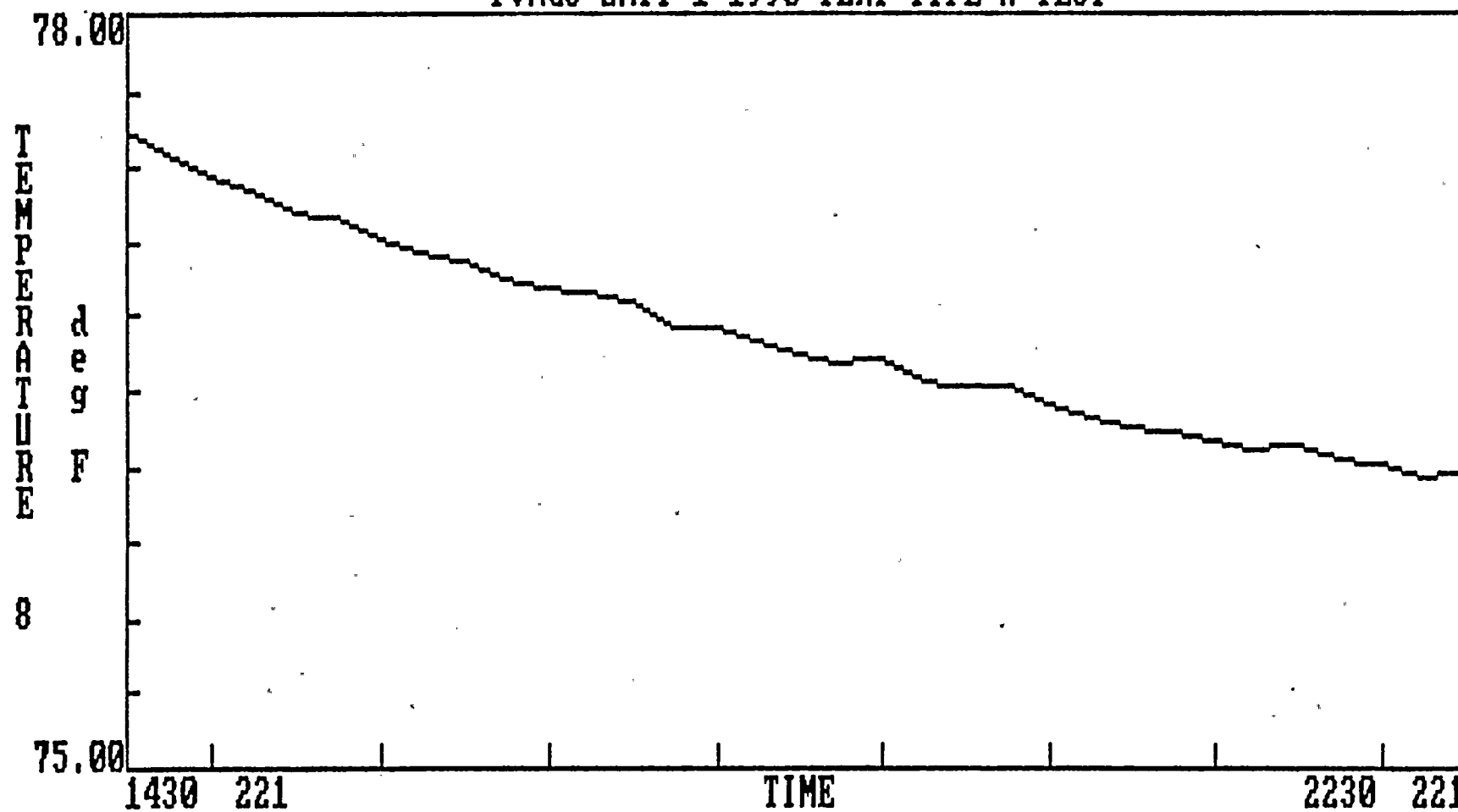


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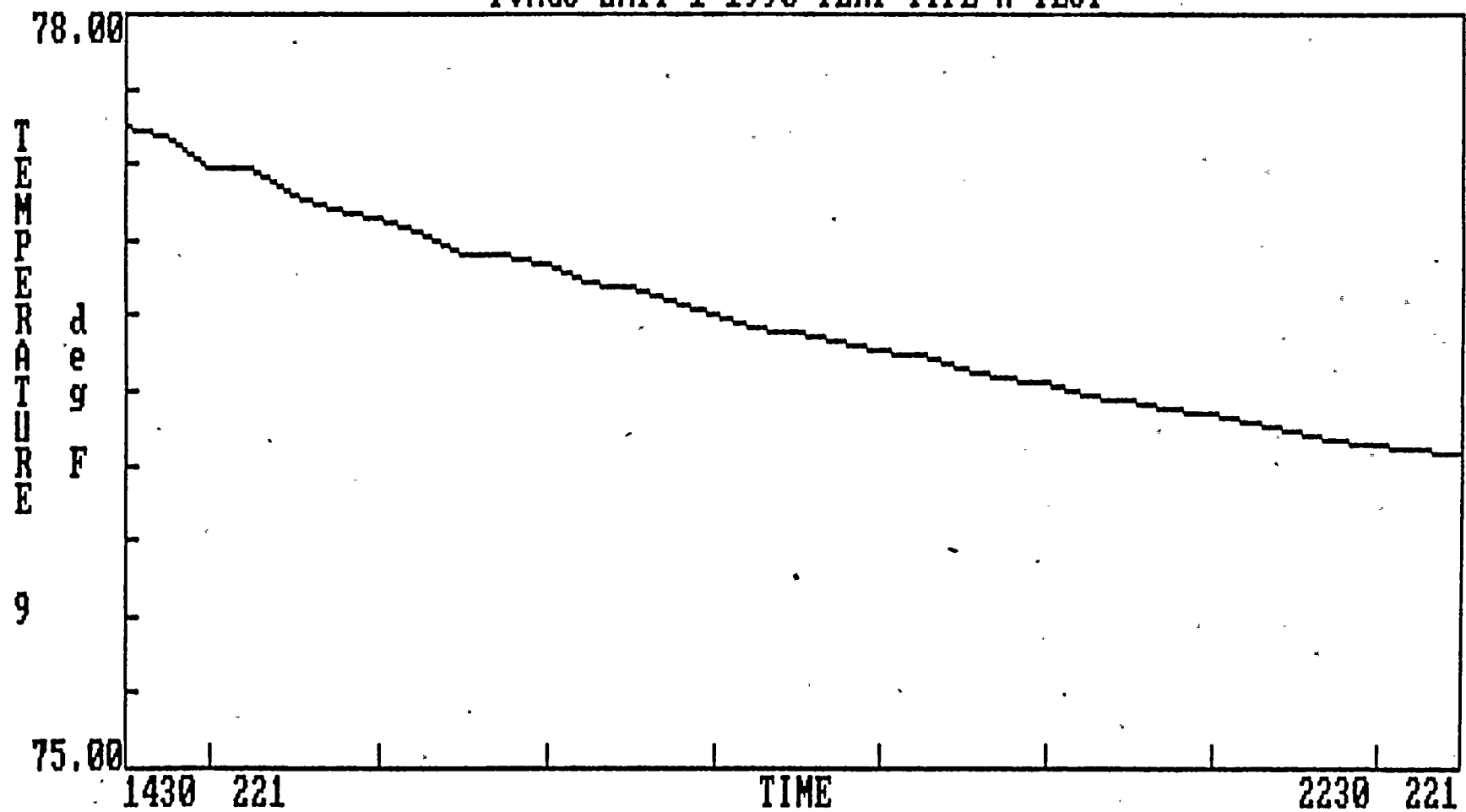


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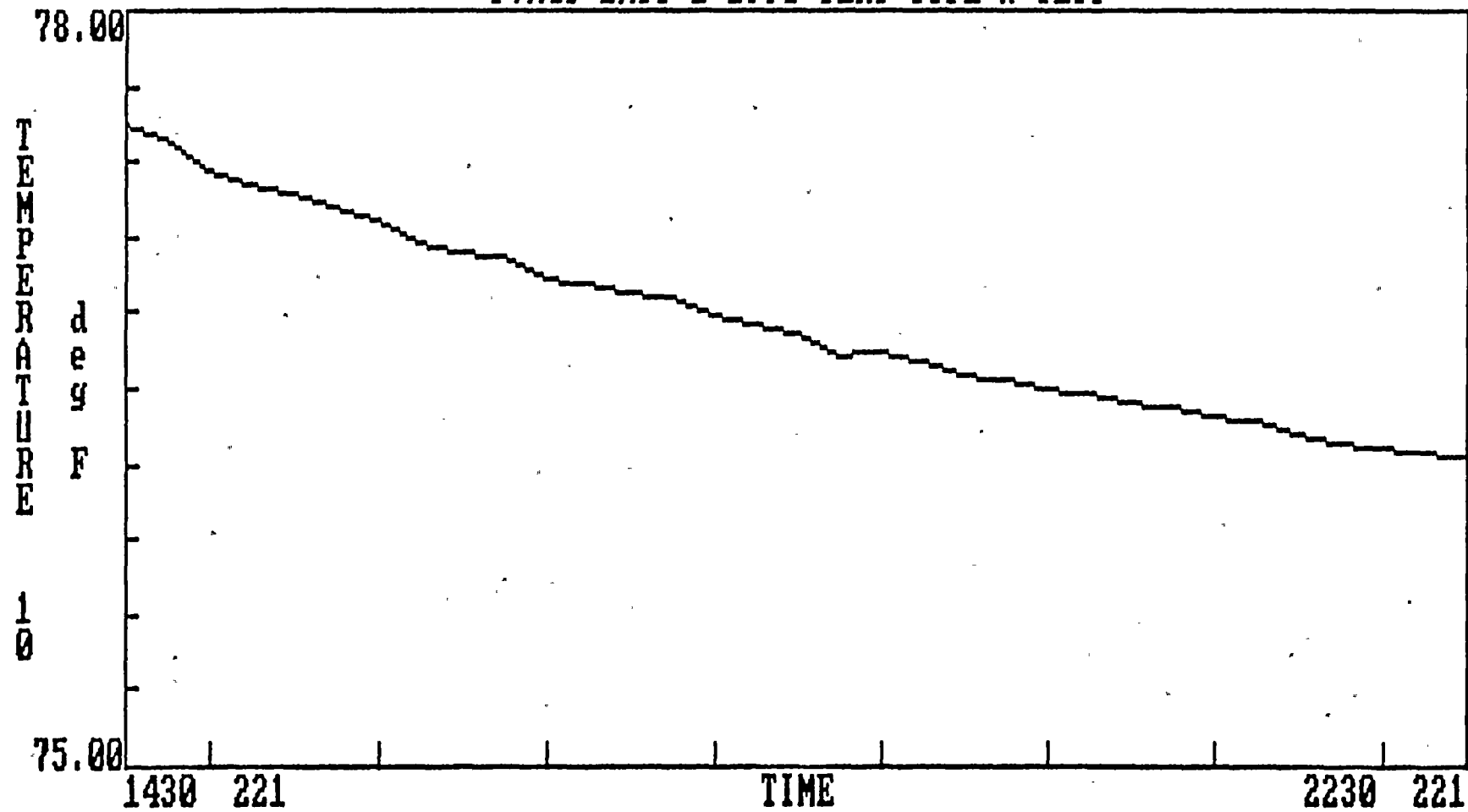


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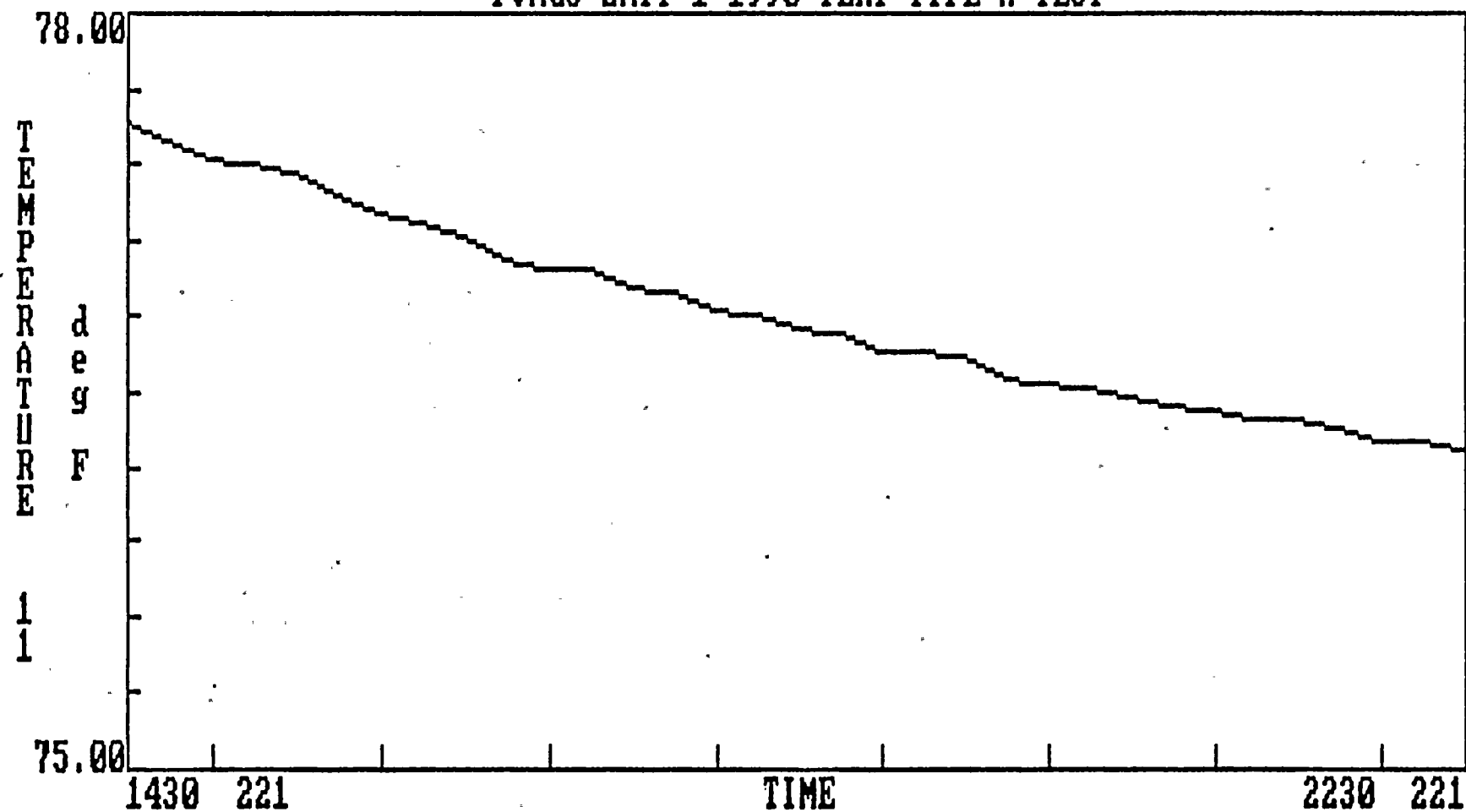


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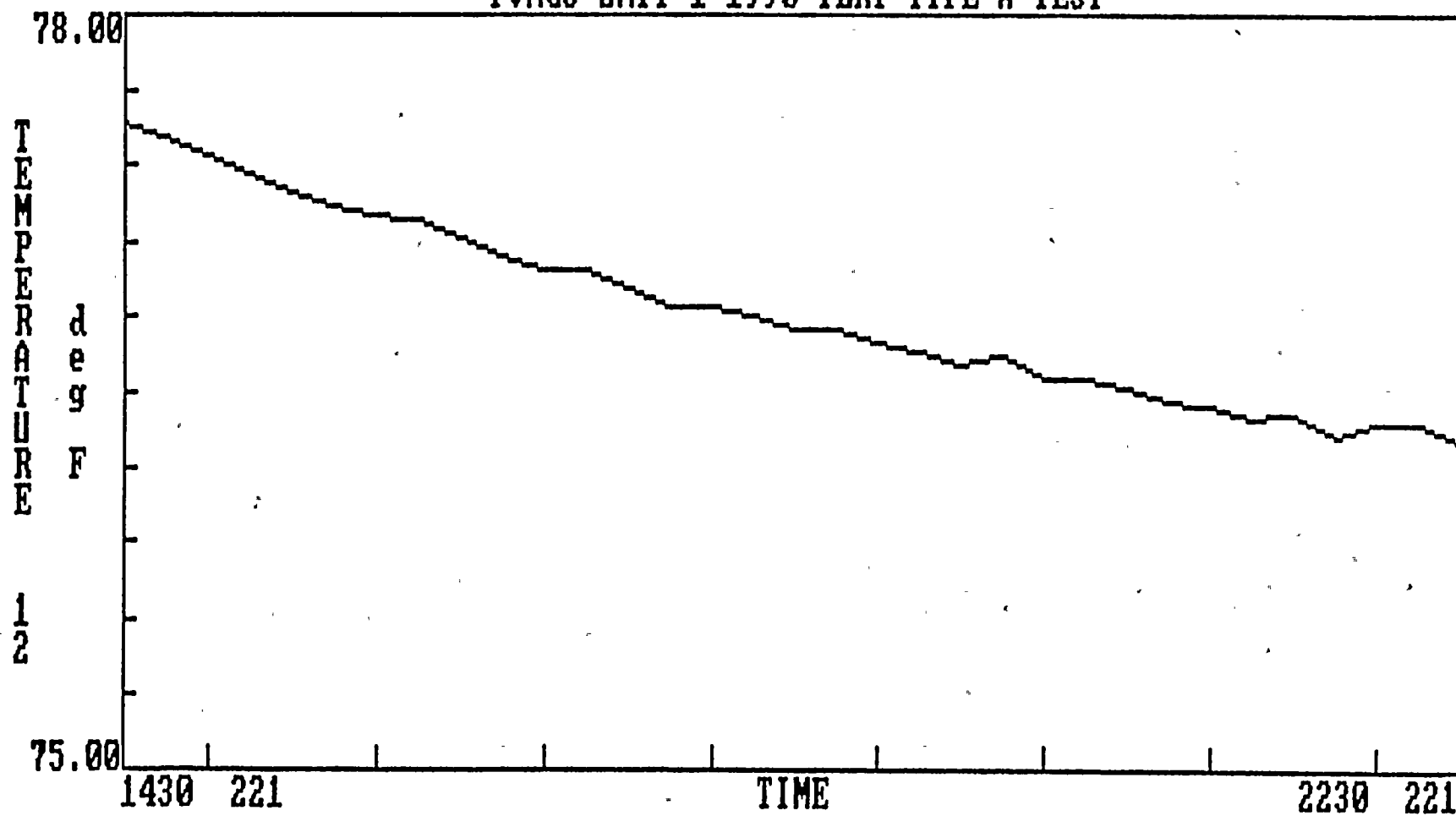


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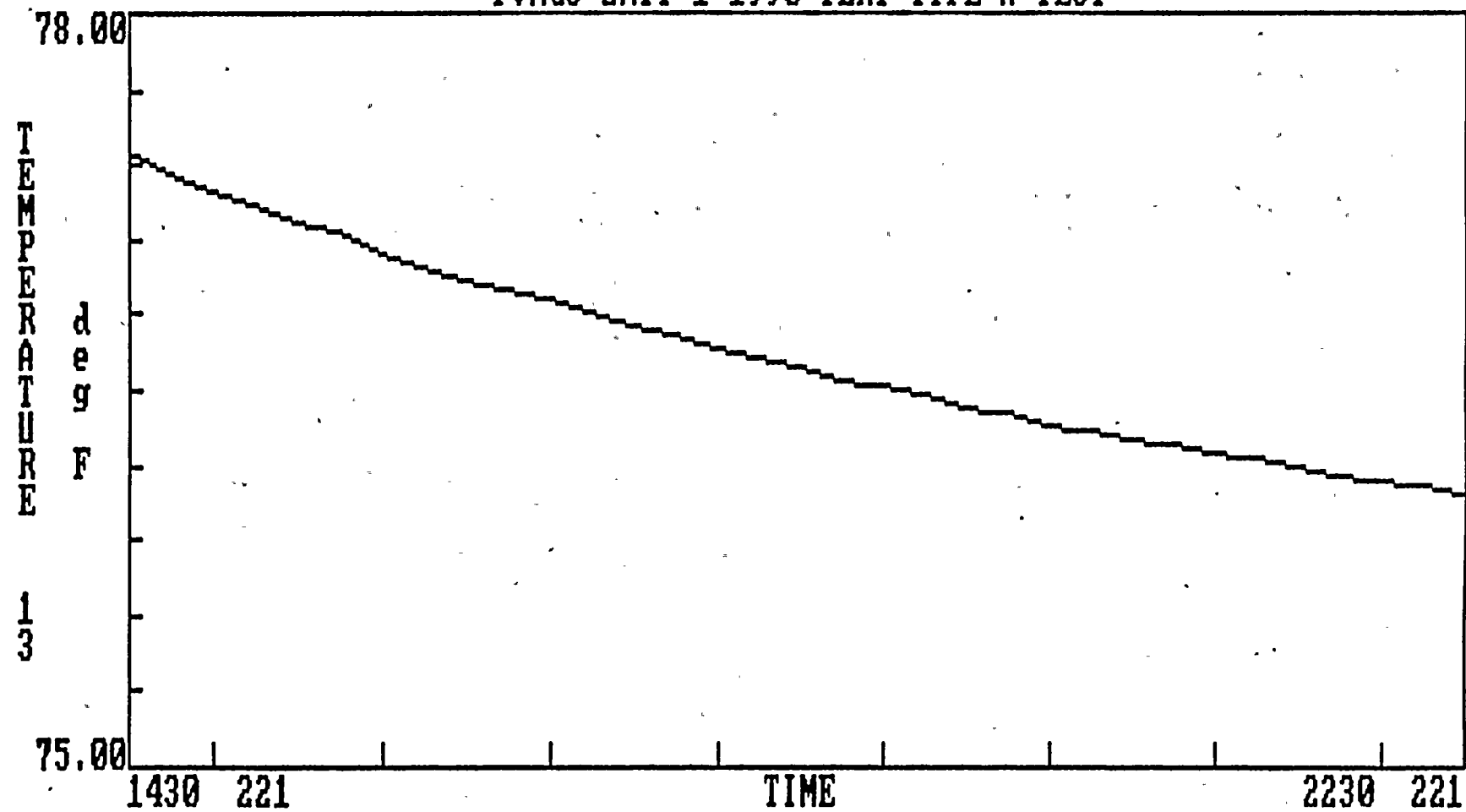


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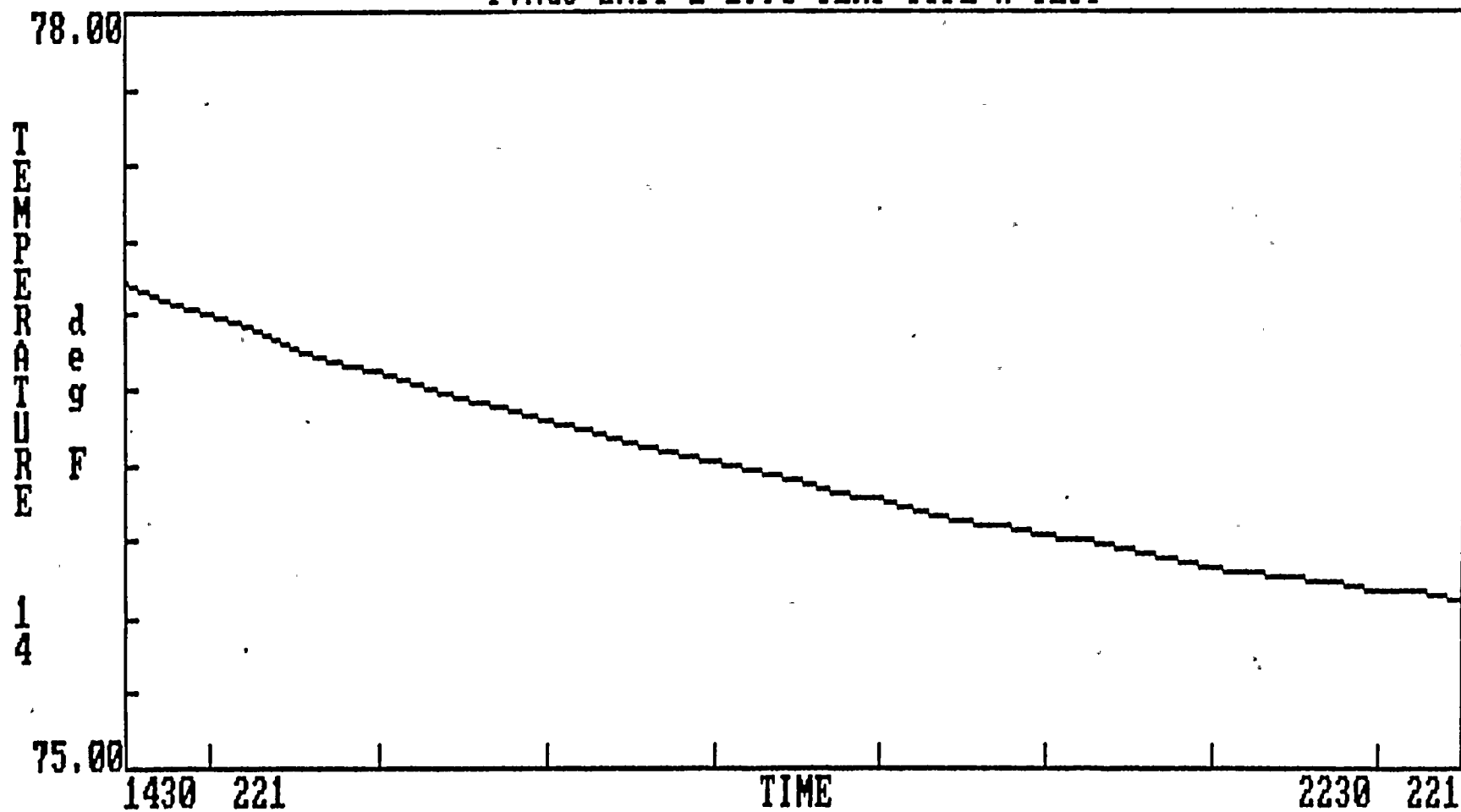


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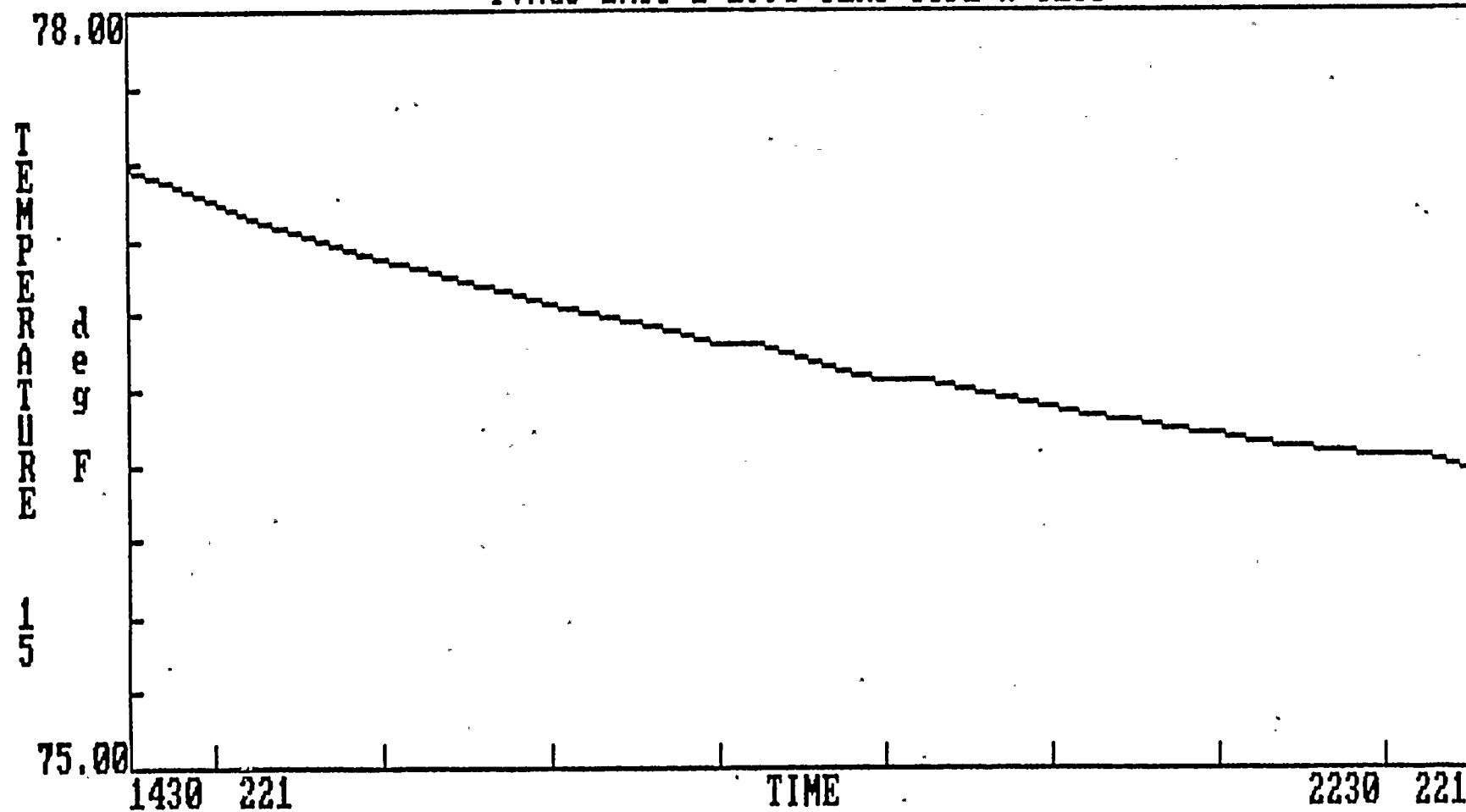
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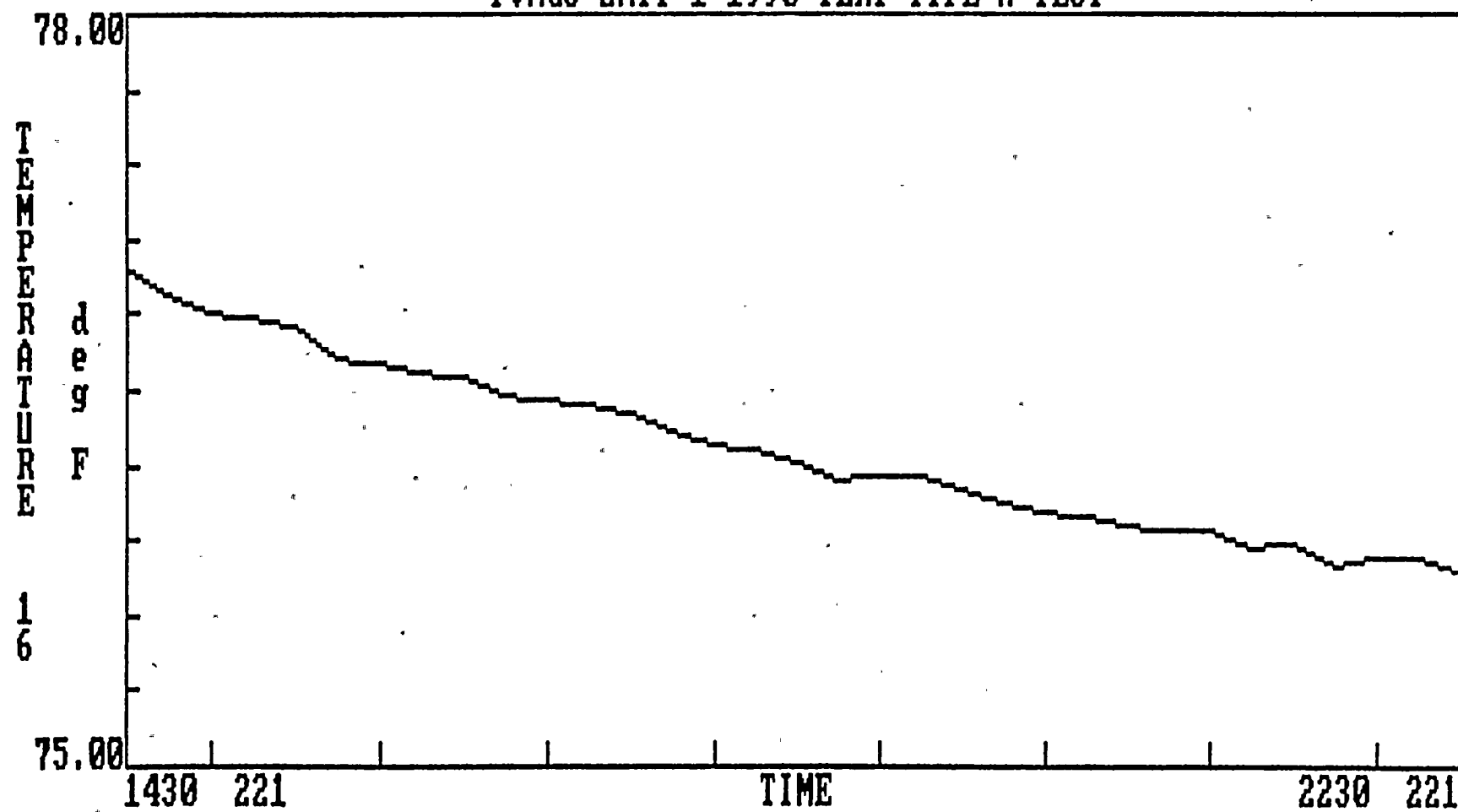
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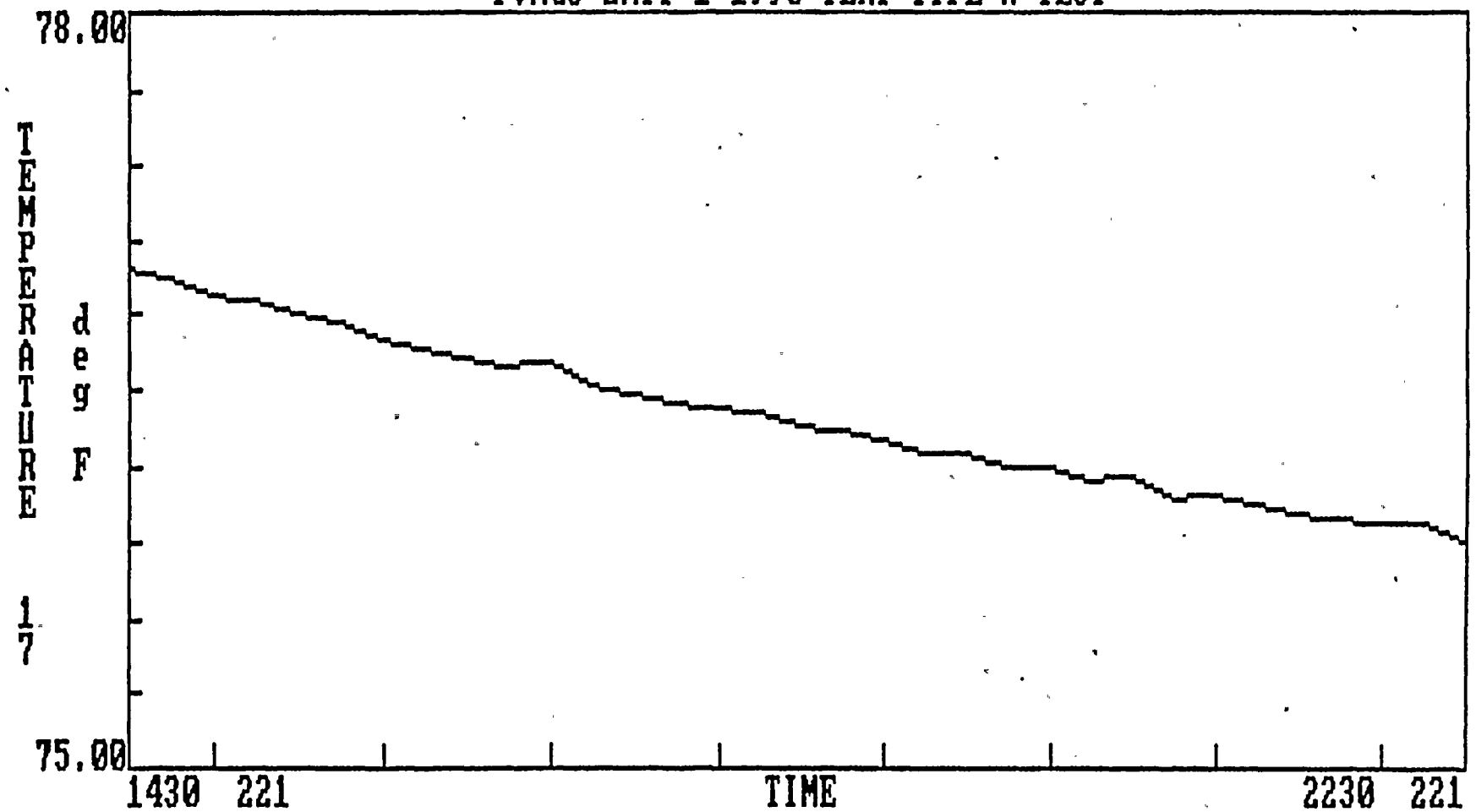




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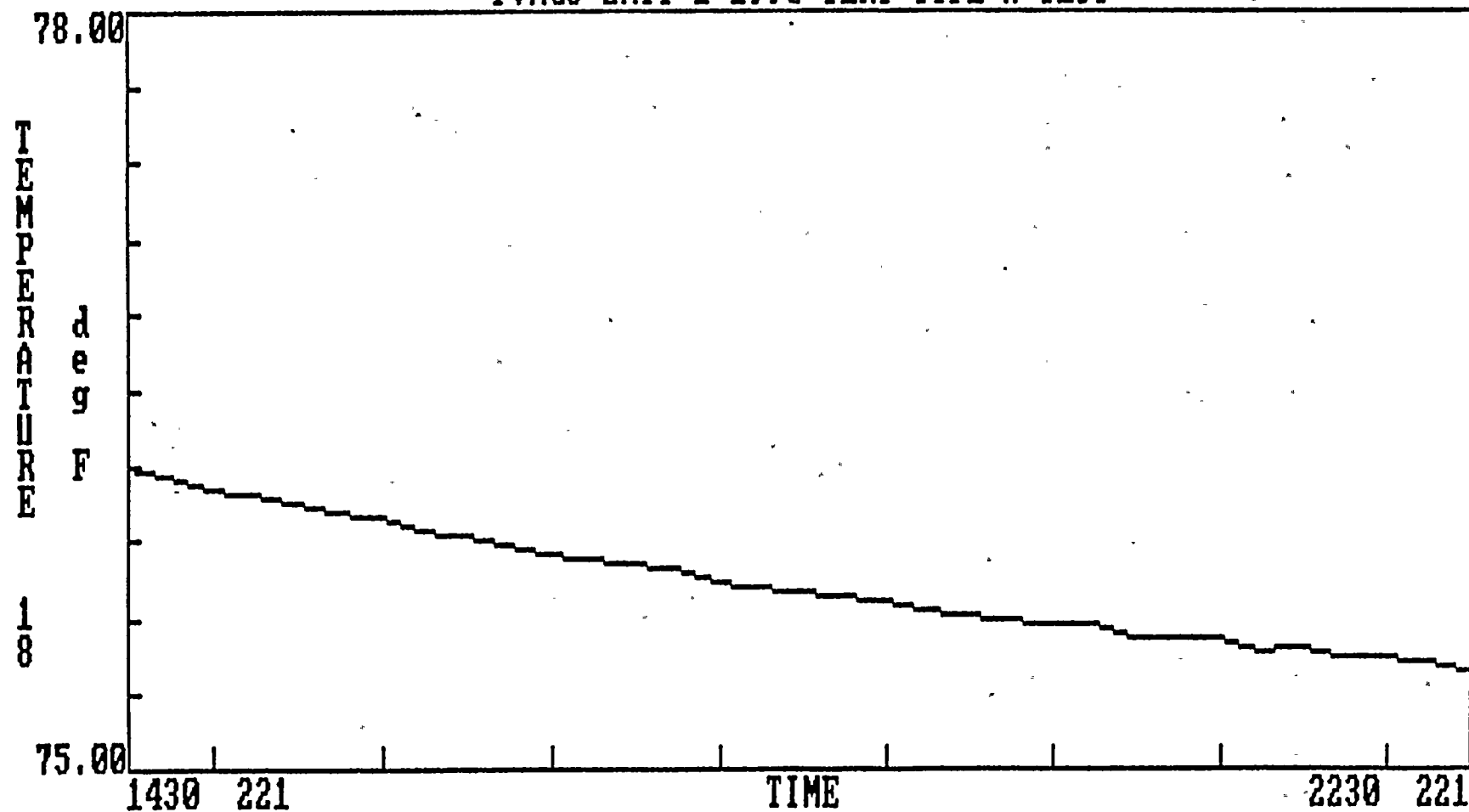


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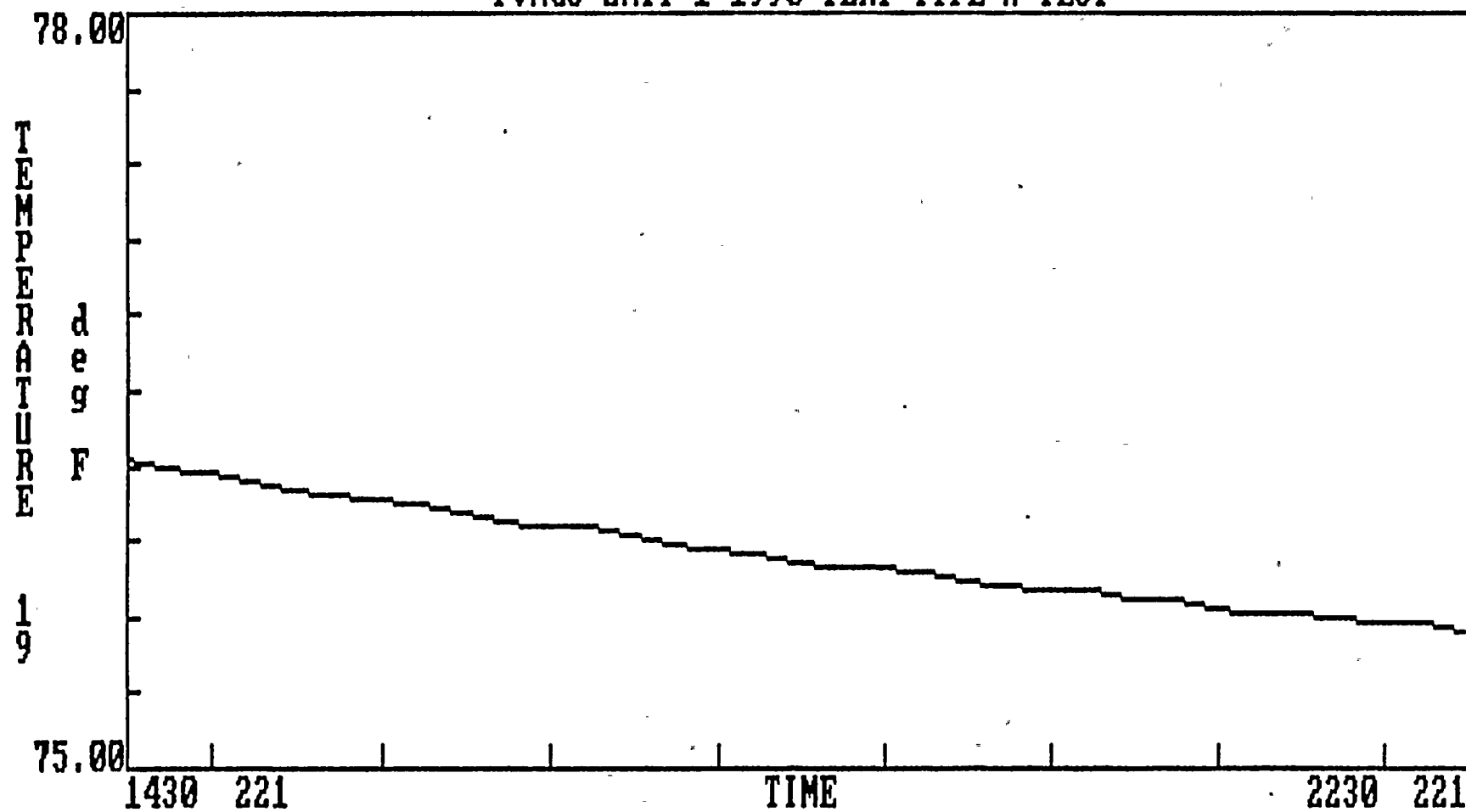


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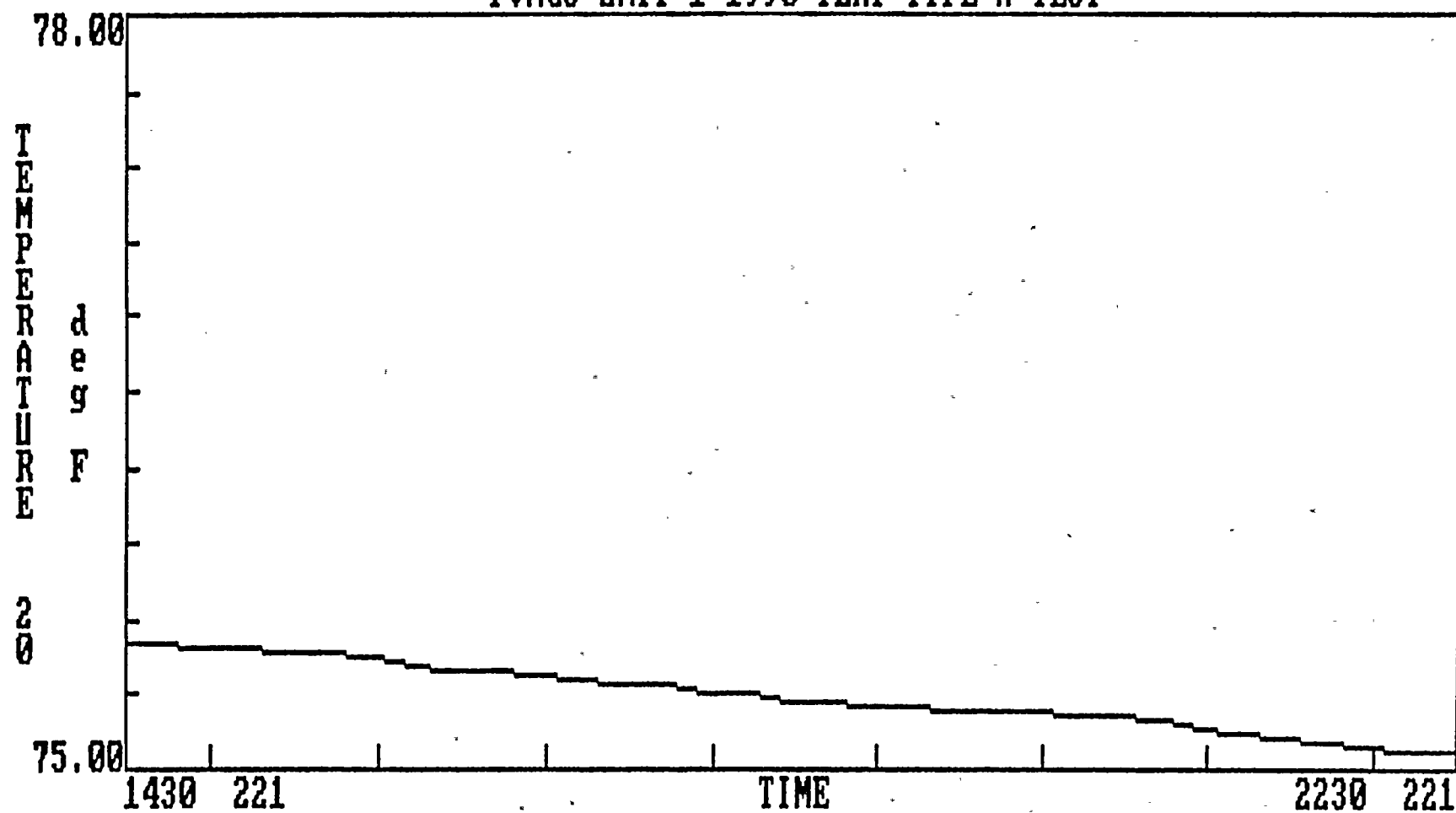


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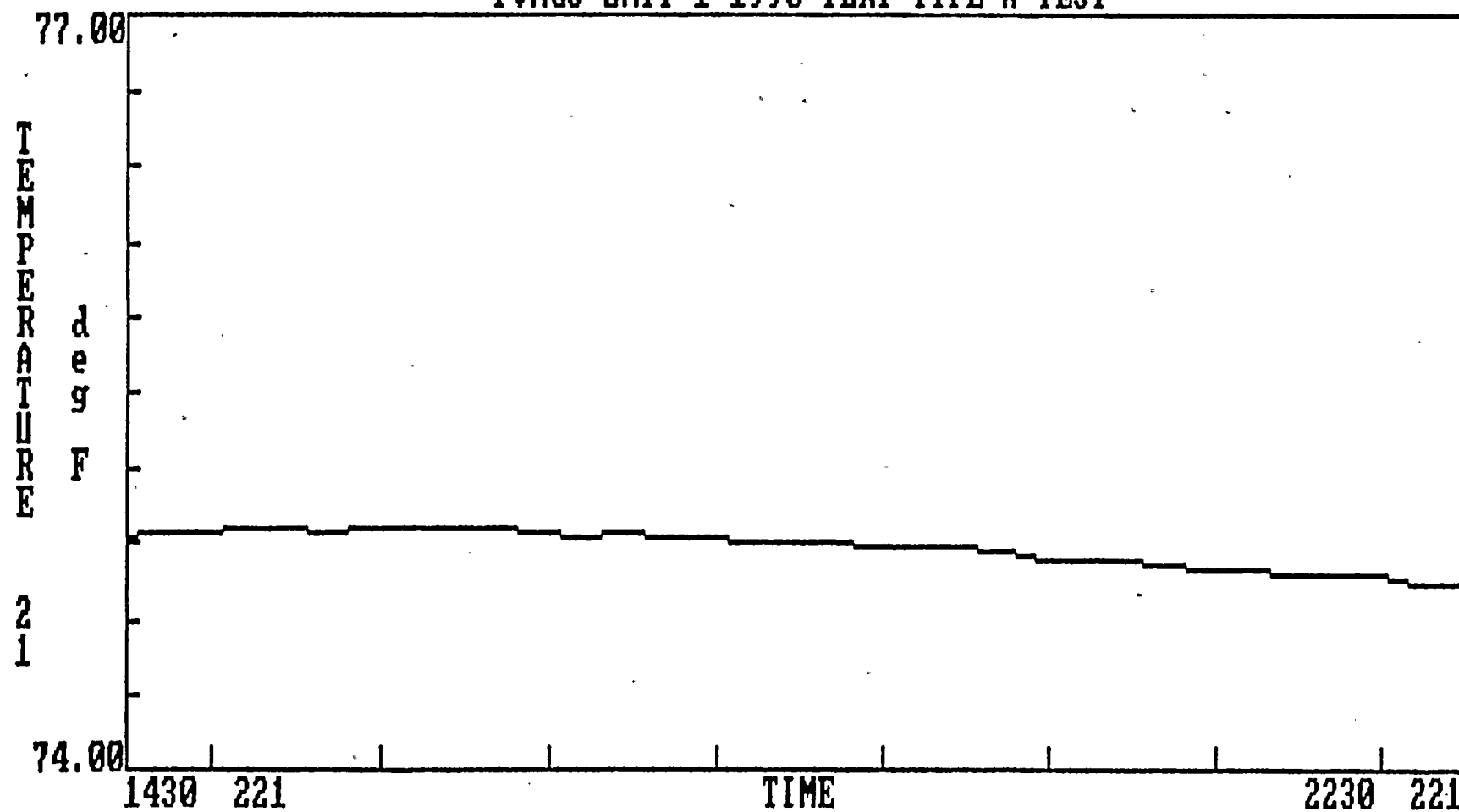


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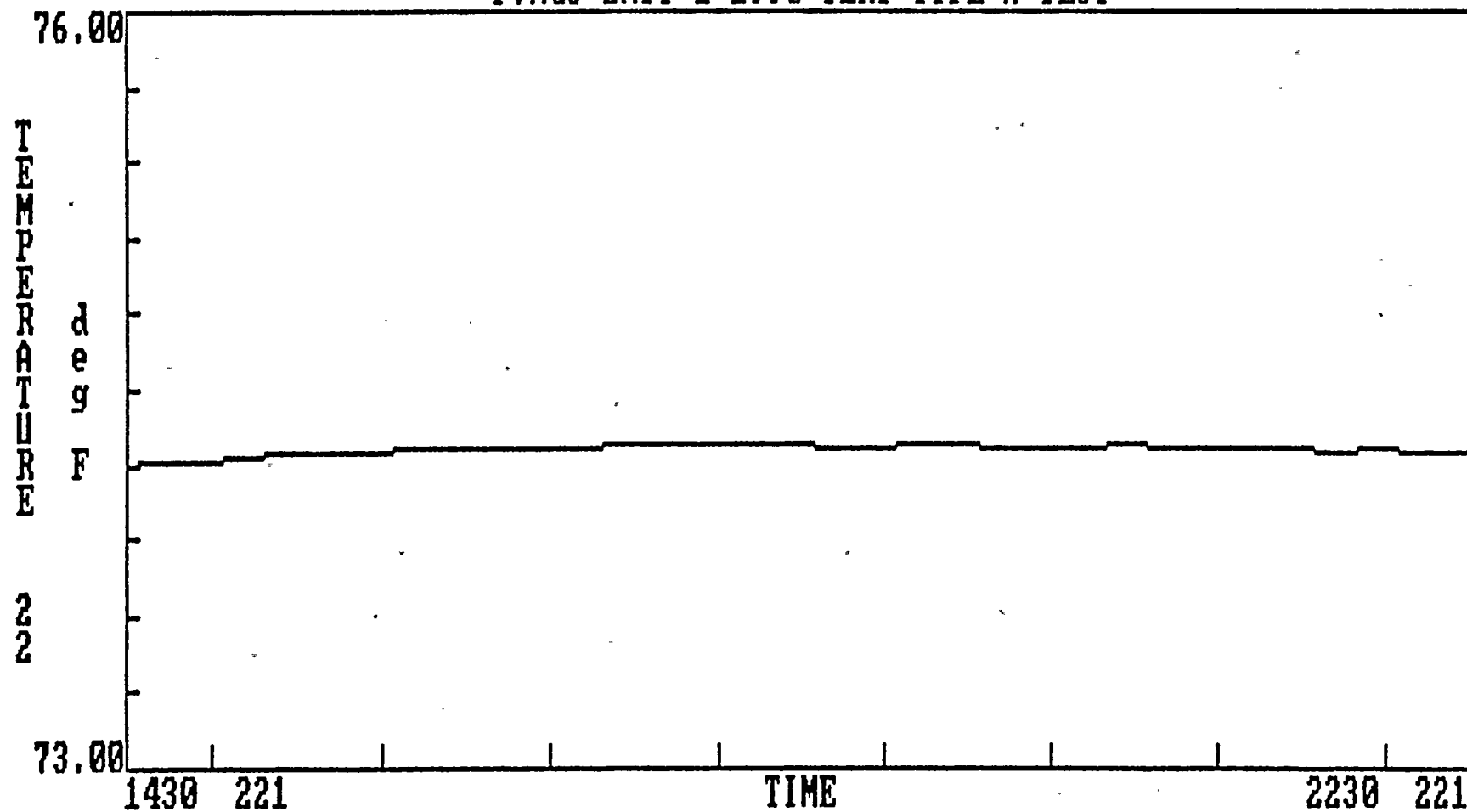


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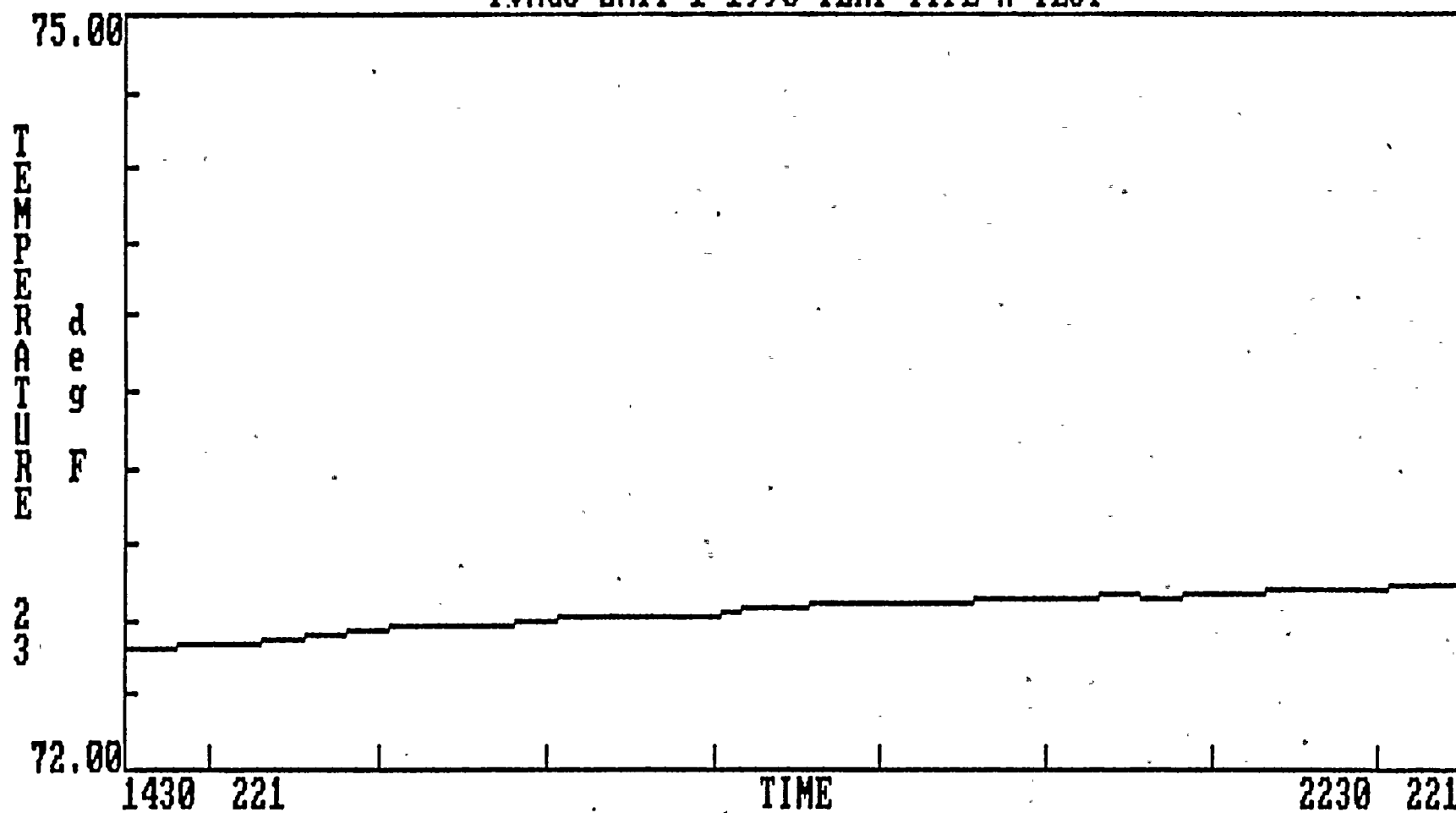


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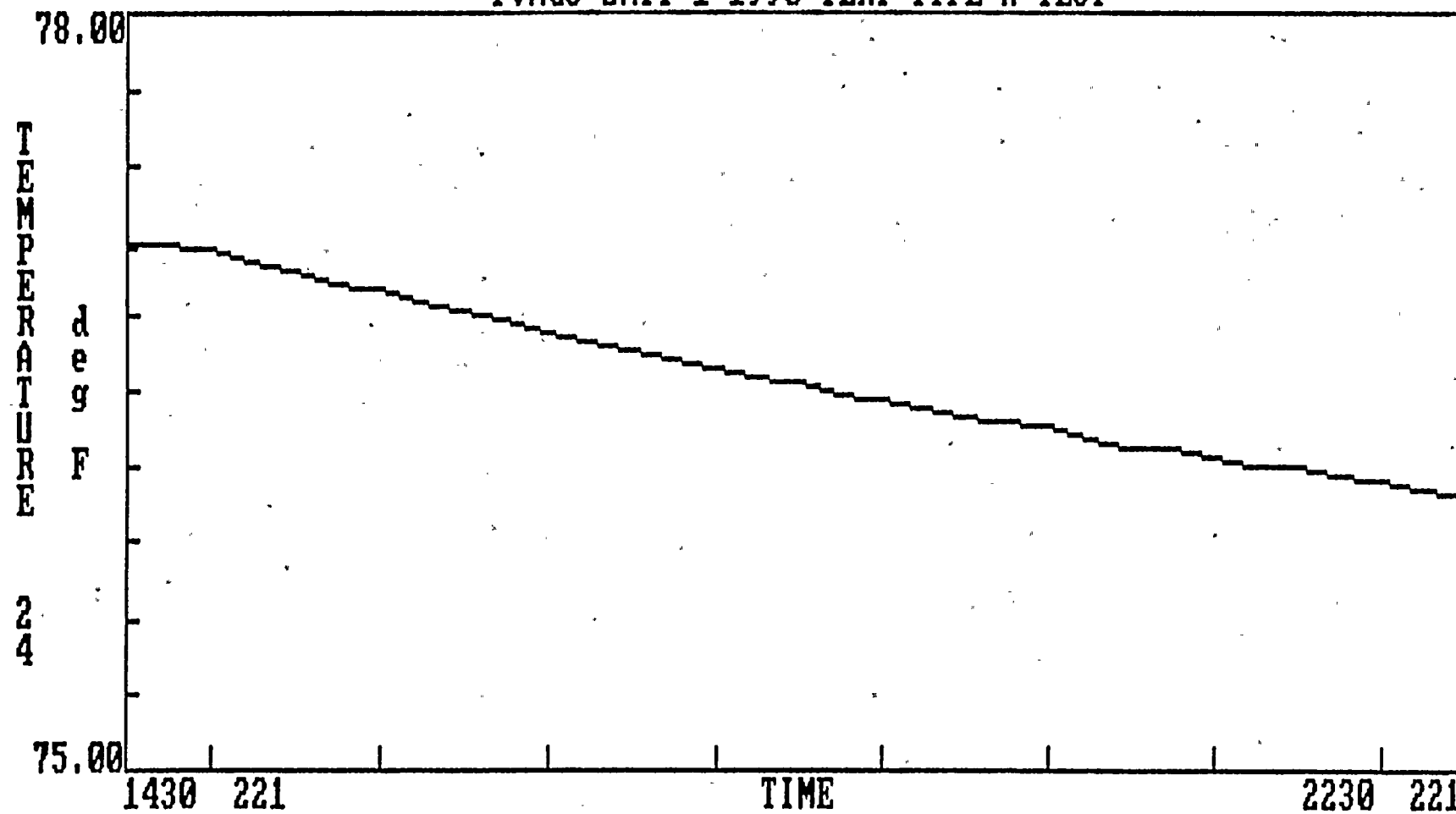


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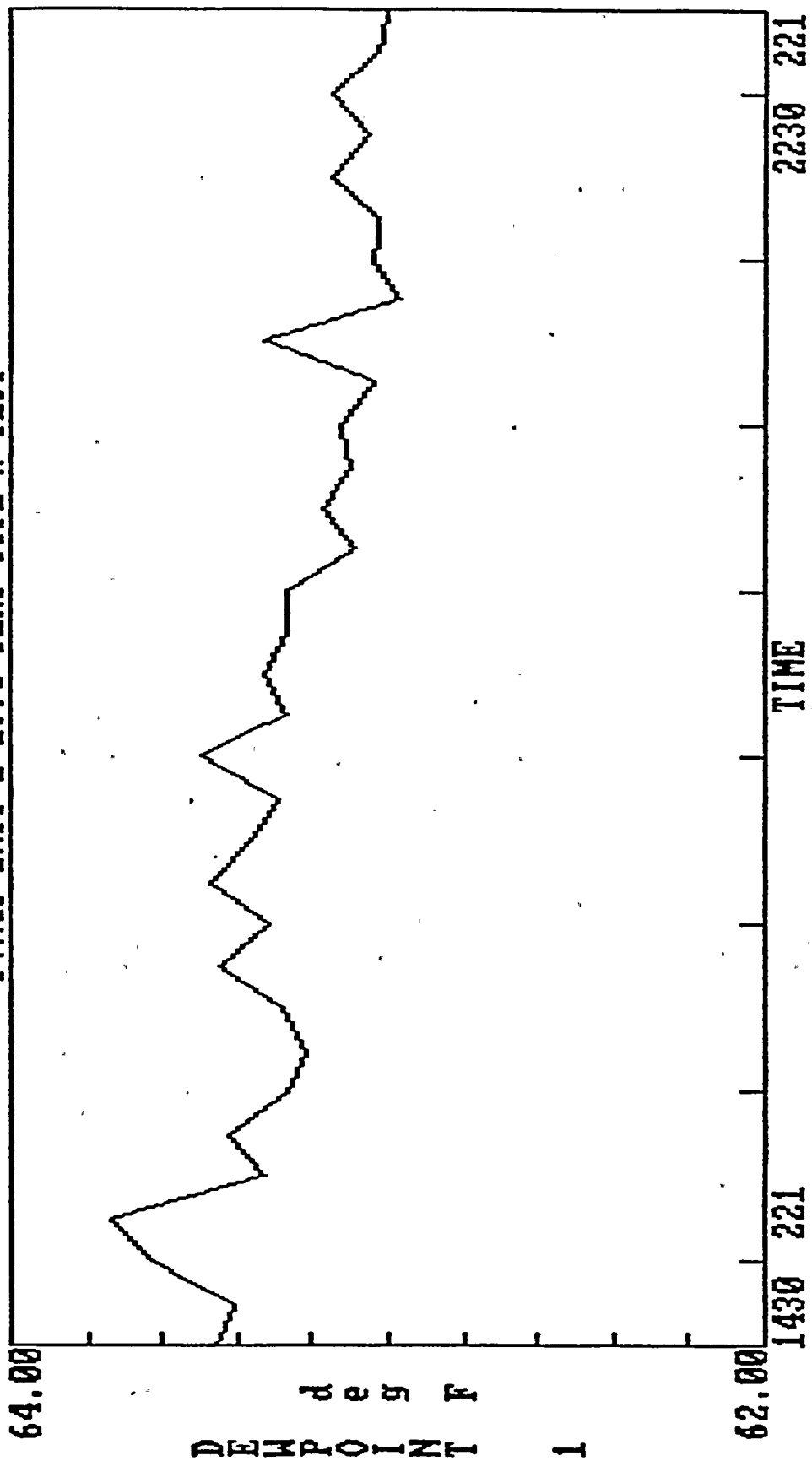




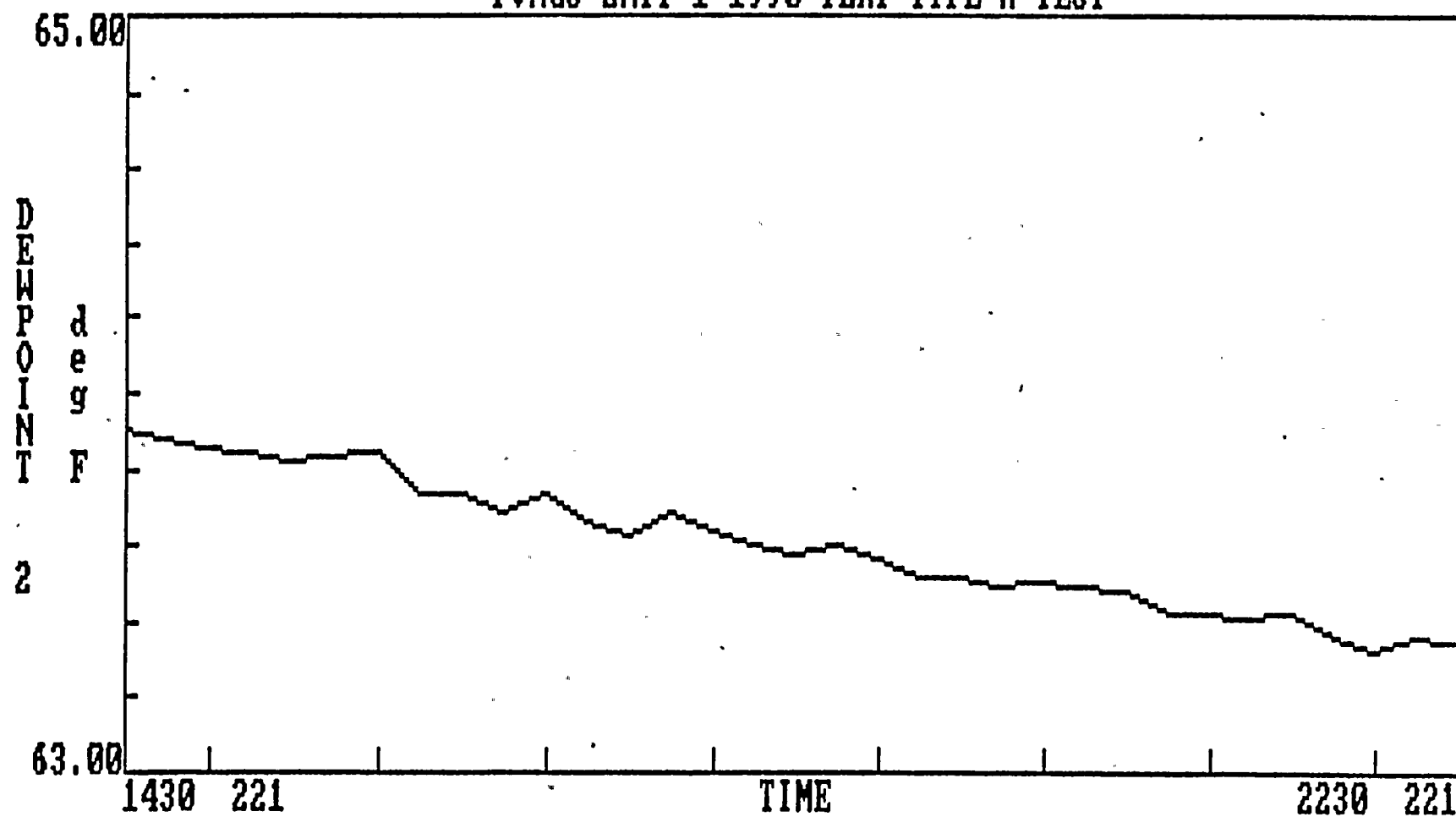
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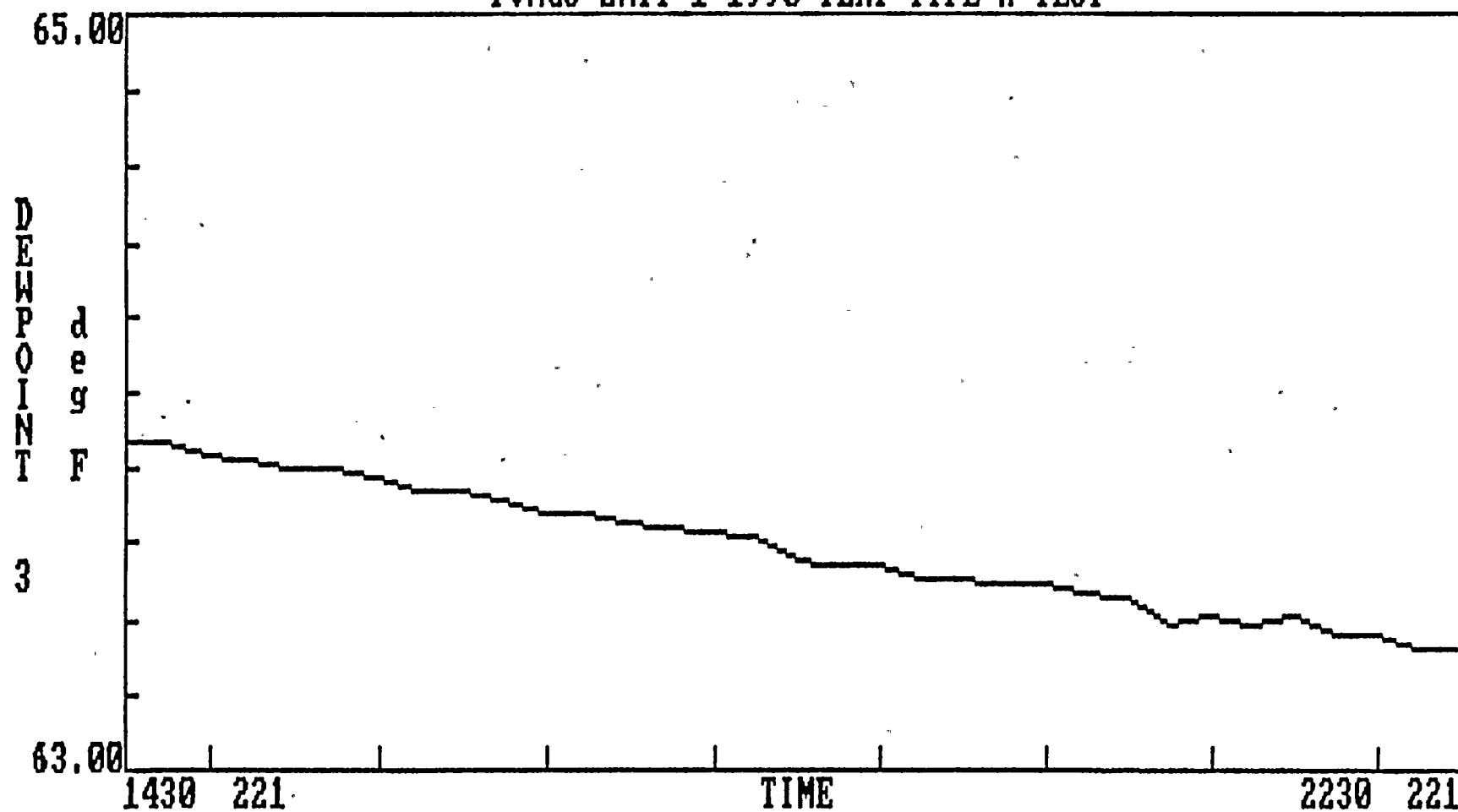


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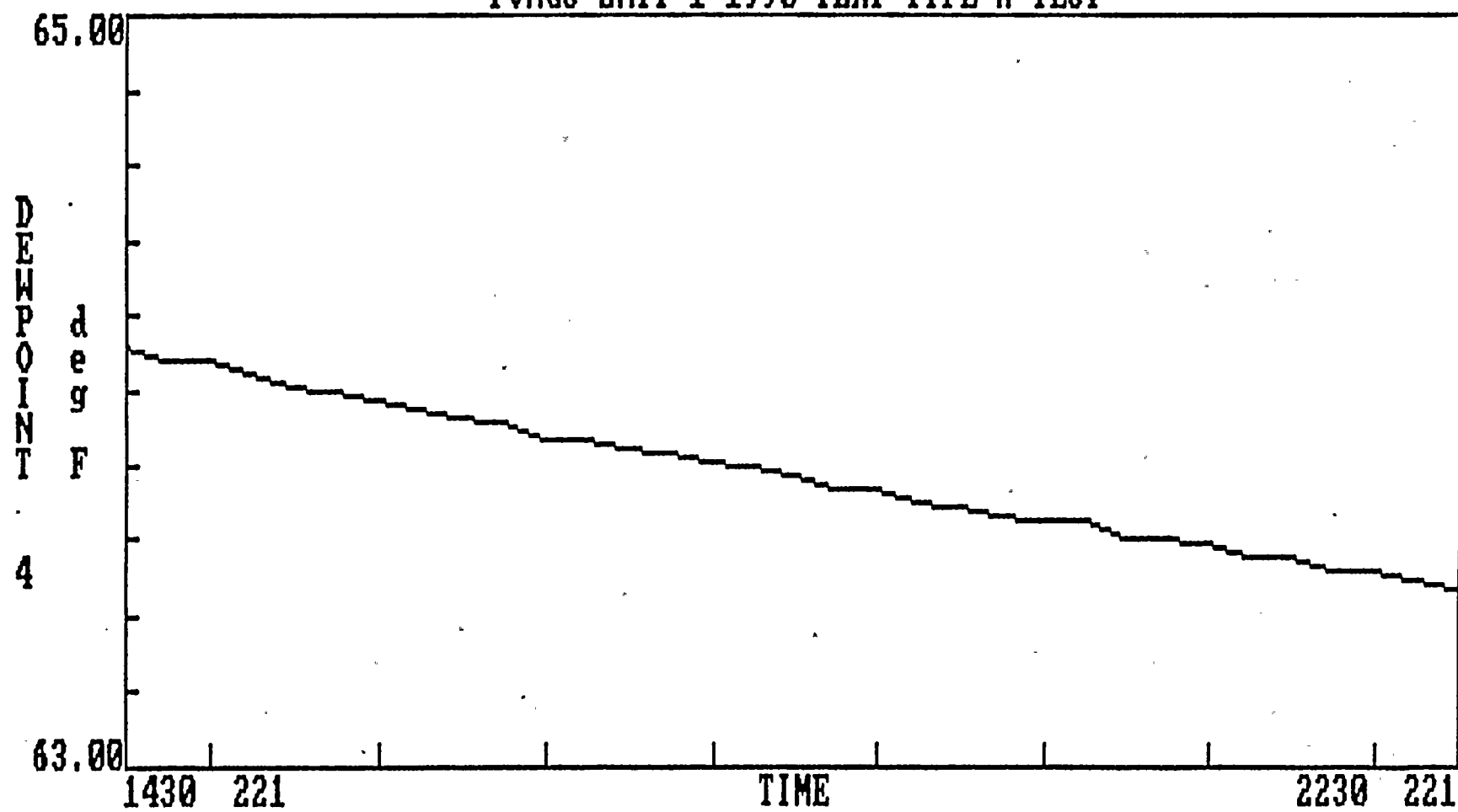


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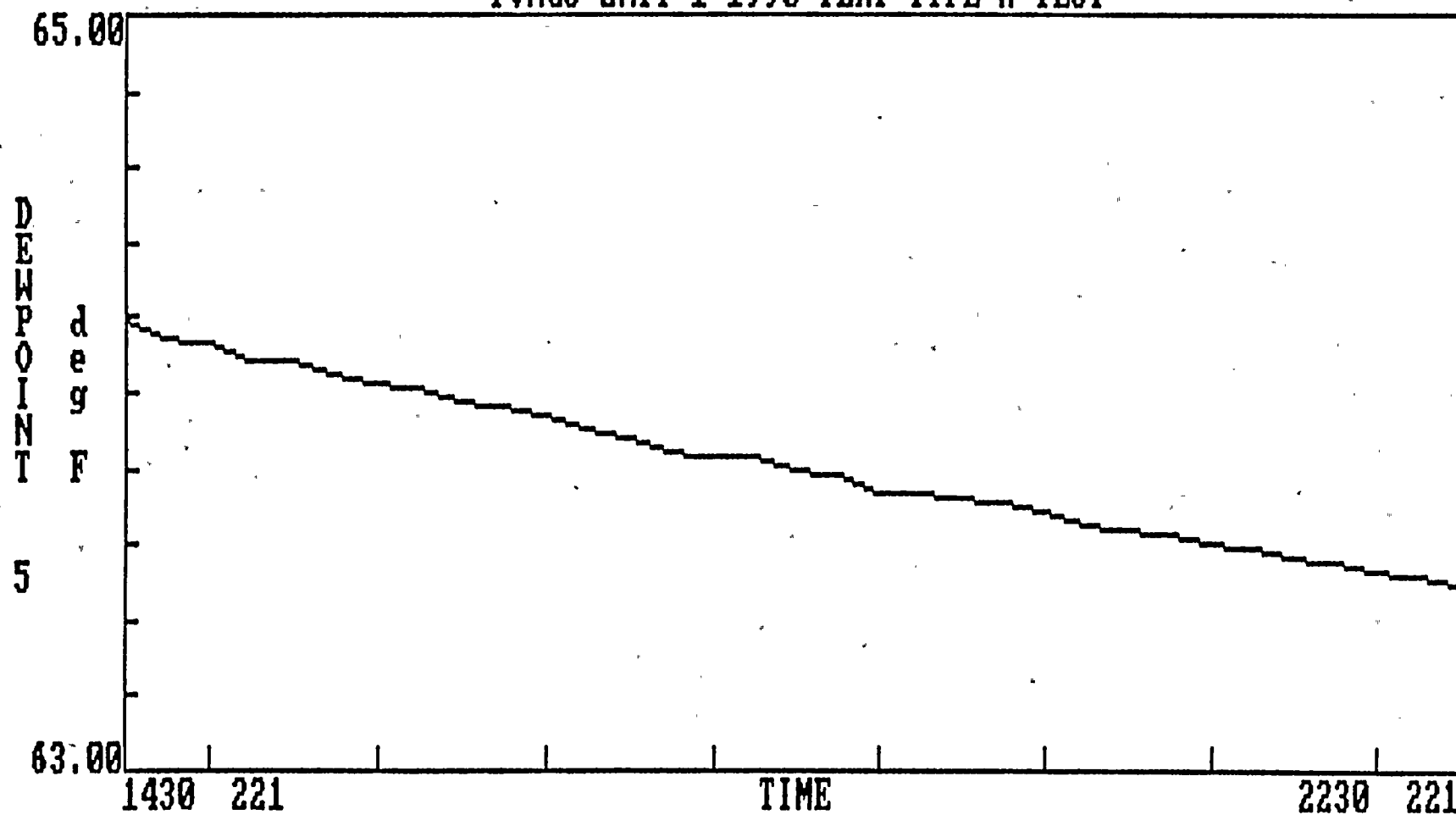




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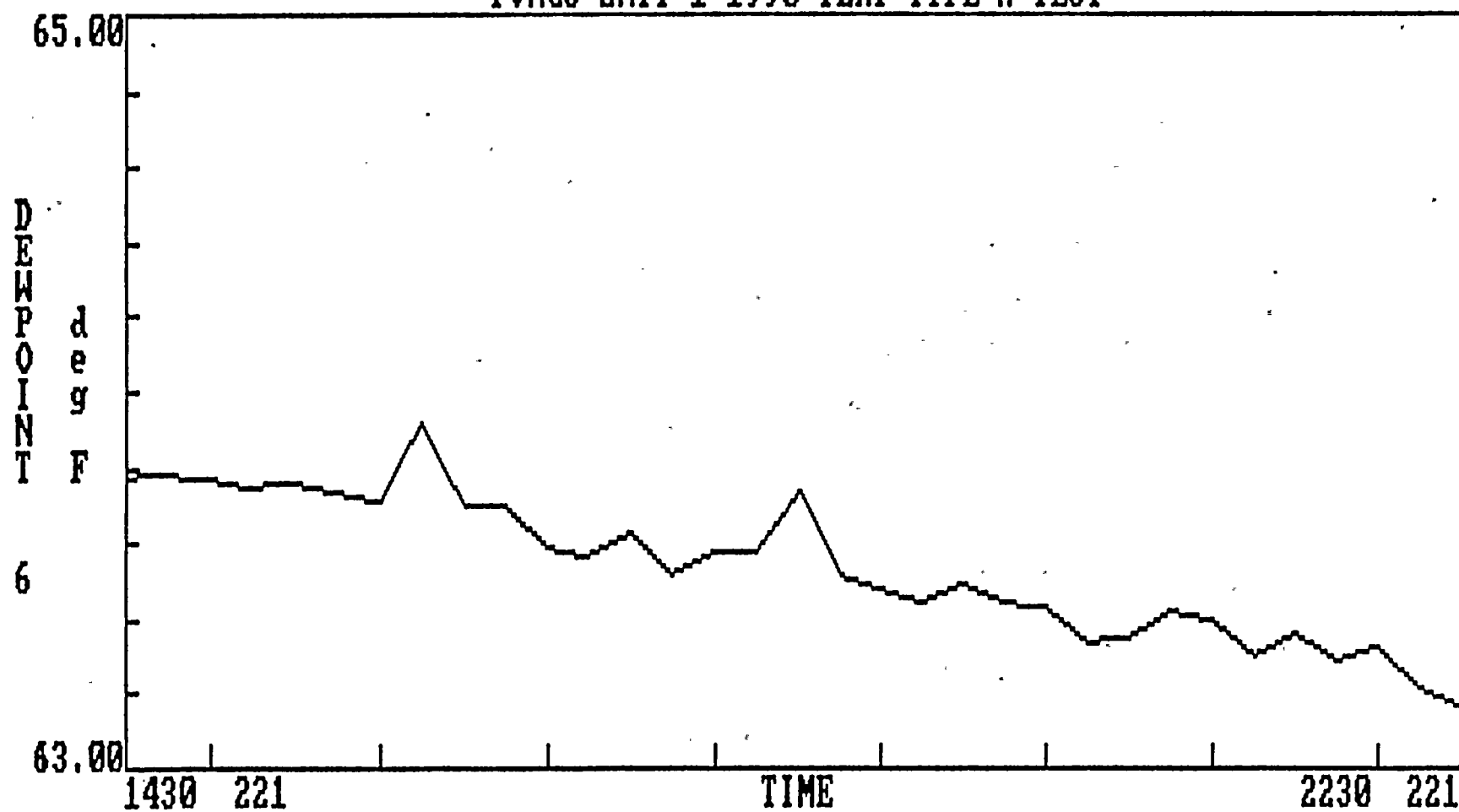


PUNGS UNIT 1-1990-ILRT-TYPE A TEST





PUNGS UNIT 1-1990-ILRT-TYPE A TEST



APPENDIX V

TYPE B AND C LOCAL LEAKAGE RATE TEST RESULTS



The following tables list results for Type B and C local leakage rate tests performed between the completion of the 1986 ILRT and the start of the 1990 ILRT. Tables include data from the initial (or as-found) test at the start of each outage and the final (or as-left) retest at the end of each outage. Additionally data from components requiring interim periodic tests are tabulated.

Tables are arranged as follows:

- * 1987 (As-found) and (Asleft) Type B and C test results
- * 1989 (As-found) and (Asleft) Type B and C test results
- * 42" Containment Purge periodic Type C tests results
- * 8" Containment Purge periodic Type C tests results
- * Personnel air lock periodic Type B test results



FIRST SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V
Page 2 of 19

PEN #	COMPONENT ID. NO.	AS FOUND DATA		AS LEFT DATA	
		LEAKAGE SCCM	DATE	LEAKAGE SCCM	DATE
6	DWE-V-0061	1200	10/9/87	1200	10/9/87
6	DWE-V-062	0	10/8/87	0	10/8/87
7	FPE-V-0089	4	10/7/87	4	10/7/87
7	FPE-V-0090	0	10/7/87	0	10/7/87
9	RDA-UV-0023	0	10/14/87	0	10/14/87
9	RDB-UV-0024	0	10/14/87	0	10/14/87
9	RDB-UV-0407	0	10/14/87	0	10/14/87
21	SIA-V-164	650	10/18/87	25	12/1/87
21	SIA-UV-0672	0	10/18/87	0	10/18/87
22	SIB-V-165	0	10/19/87	0	12/1/87
22	SIB-UV-0671	0	10/20/87	0	10/20/87
25A	HCB-UV-0044	0	10/18/87	0	10/18/87
25A	HCA-UV-0045	0	10/18/87	0	10/18/87
25B	HCA-UV-0046	0	10/18/87	0	10/18/87
25B	HCB-UV-0047	0	10/18/87	0	10/18/87
26	SIB-PSV-0189	0	11/2/87	0	11/2/87
26	SID-UV-0654	0	10/30/87	24.5	11/6/87
26	SIB-UV-0656	0	10/30/87	0	11/7/87
26	SIB-HV-690	25	10/30/87	25	10/30/87
27	SIA-PSV-0179	0	11/13/87	0	11/13/87
27	SIC-UV-0653	30	11/13/87	0	11/16/87
27	SIA-UV-0655	25	11/12/87	25	11/12/87
27	SIA-HV-0691	18	11/12/87	18	11/12/87
28	SIE-V-0463	2	10/22/87	2	10/22/87
28	SIE-PSV-0474	0	10/21/87	0	10/21/87
28	SIA-UV-0682	0	10/21/87	0	10/21/87
29	GAA-UV-0002	100	10/21/87	100	10/21/87
29	GAE-V-015	3	10/21/87	3	10/21/87
30	GAA-UV-0001	25	11/9/87	25	11/9/87
30	GAE-V-011	15	10/21/87	15	10/21/87
31	IAA-UV-0002	0	10/12/87	0	10/12/87
31	IAE-V-0021	24.5	10/12/87	24.5	10/12/87
33	NCE-V-0118	0	10/9/87	0	10/9/87
33	NCB-UV-0401	0	10/9/87	0	10/14/87
34	NCA-UV-0402	0	10/9/87	0	10/9/87
34	NCB-UV-0403	0	10.9.87	0	10.9.87
35	HPA-UV-0001	0	10/23/87	0	10/23/87
35	HPA-UV-0003	24.5	10/23/87	24.5	10/23/87
35	HPA-UV-0024	0	10/23/87	0	10/23/87
35	HPA-HV-0007A	0	10/23/87	0	10/23/87

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of names and addresses of the members of the committee.

3. The third part of the document is a list of names and addresses of the members of the committee.

4. The fourth part of the document is a list of names and addresses of the members of the committee.

5. The fifth part of the document is a list of names and addresses of the members of the committee.

6. The sixth part of the document is a list of names and addresses of the members of the committee.

7. The seventh part of the document is a list of names and addresses of the members of the committee.

FIRST SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V
Page 3 of 19

PEN #	COMPONENT ID. NO.	AS FOUND DATA		AS LEFT DATA	
		LEAKAGE SCCM	DATE	LEAKAGE SCCM	DATE
36	HPB-UV-0002	0	10/22/87	0	10/22/87
36	HPB-UV-0004	6	10/22/87	6	10/22/87
36	HPB-HV-0008A	0	10/22/87	0	10/22/87
38	HPA-V-002	65	10/23/87	65	10/23/87
38	HPA-UV-0005	24.5	10/23/87	24.5	10/23/87
38	HPA-HV-0007B	0	10/23/87	0	10/23/87
38	HPA-UV-0023	0	10/23/87	0	10/23/87
39	HPB-V-004	0	10/22/87	0	10/22/87
39	HPB-UV-0006	35	10/22/87	35	10/22/87
39	HPB-HV-0008B	0	10/22/87	0	10/22/87
40	CHA-UV-0516	0	10/17/87	0	10/17/87
40	CHB-UV-0523	0	10/17/87	24.5	10/19/87
40	CHB-UV-0924	0	10/17/87	0	10/17/87
41	CHE-VM-0070	0	10/20/87	0	10/20/87
41	CHA-HV-0524	0	10/20/87	0	10/22/87
41	CHE-V-0854	0	10/21/87	0	10/21/87
42A	SSB-UV-0201	0	10/15/87	0	10/15/87
42A	SSA-UV-0204	10	10/15/87	10	10/15/87
42B	SSB-UV-0202	275	10/15/87	5	12/9/87
42B	SSA-UV-0205	18	10/15/87	0	12/21/87
42C	SSB-UV-0200	>2000	10/15/87	0	12/21/87
42C	SSA-UV-0203	>2000	10/15/87	0	12/21/87
43	CHB-UV-0505	0	10/16/87	0	10/16/87
43	CHA-UV-0506	9	10/16/87	9	10/16/87
44	CHA-UV-0560	0	10/17/87	0	10/17/87
44	CHB-UV-0561	0	10/17/87	0	10/17/87
45	CHN-V-0494	0	10/17/87	0	10/17/87
45	CHA-UV-0580	0	10/17/87	0	10/17/87
45	CHA-UV-0715	0	10/17/87	0	10/17/87
50	PCE-V-0070	24.5	10/11/87	24.5	10/11/87
50	PCE-V-0071	0	10/10/87	0	10/10/87
51	PCE-V-0075	0	10/10/87	0	10/10/87
51	PCE-V-0076	0	10/11/87	0	10/11/87
52	GRA-UV-0001	0	10/18/87	0	10/18/87
52	GRB-UV-0002	0	10/18/87	0	10/18/87
53	FUEL TUBE	0	10/8/87	40	12/28/87
58	ILRT	0	10/8/87	0	12/1/87
59	IAE-V-0072	13	10/10/87	13	10/10/87
59	IAE-V-0073	120	10/5/87	120	10/5/87

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

FIRST SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V
Page 4 of 19

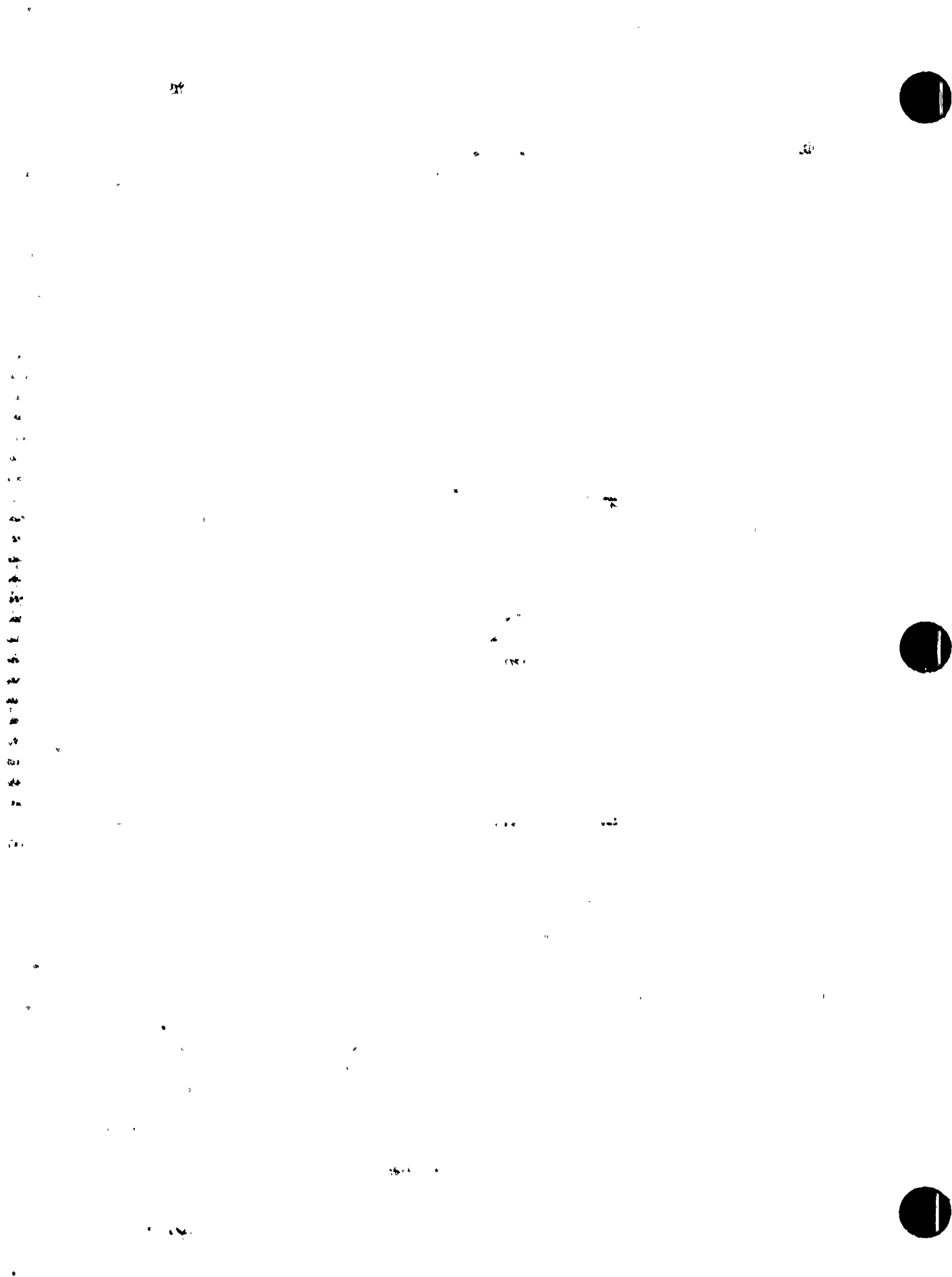
| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|--------|----------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| 60 | WCE-V-039 | 0 | 10/21/87 | 0 | 10/21/87 |
| 60 | WCB-UV-0063 | 175 | 10/21/87 | 175 | 10/21/87 |
| 61 | WCB-UV-0061 | 0 | 10/21/87 | 0 | 12/30/87 |
| 61 | WCA-UV-0062 | 90 | 10/21/87 | 90 | 10/21/87 |
| 62B | ILRT PRESS | 0 | 10/8/87 | 0 | 10/8/87 |
| 62C | ILRT PRESS | 0 | 10/8/87 | 0 | 10/8/87 |
| 67 | SID-HV-0331 | 0 | 10/20/87 | 0 | 10/22/87 |
| 67 | SIB-V-0533 | 0 | 10/19/87 | 0 | 10/19/87 |
| 72 | CHB-HV-0255 | 0 | 10/16/87 | 0 | 12/19/87 |
| 72 | CHN-V-0835 | 0 | 10/16/87 | 0 | 10/16/87 |
| 77 | SIC-HV-0321 | 0 | 10/20/87 | 0 | 10/20/87 |
| 77 | SIA-V-0523 | 0 | 10/20/87 | 0 | 10/20/87 |
| * L1 | 140' AIRLOCK | 0 | 8/13/87 | 0 | 8/13/87 |
| L2 | EQUIPT. HATCH | 0 | 10/6/87 | 0 | 1/4/88 |
| * L3 | 100' AIRLOCK | 0 | 7/30/87 | 0 | 7/30/87 |
| ELEC. | Z-1 - Z-91 | 0 | N/A | 0 | N/A |
| * 56 | CPA-UV-002A | >6600 | 12/29/87 | 0 | 12/29/87 |
| * 56 | CPB-UV-003A | 0 | 12/29/87 | 0 | 12/29/87 |
| * 57 | CPA-UV-002B | 0 | 12/29/87 | 0 | 12/29/87 |
| * 57 | CPB-UV-003B | 0 | 12/29/87 | 0 | 12/29/87 |
| **78 | CPA-UV-004A | 0 | 12/16/87 | 0 | 12/16/87 |
| **78 | CPB-UV-005A | 0 | 12/16/87 | 0 | 12/16/87 |
| **79 | CPA-UV-004B | 25 | 12/16/87 | 25 | 12/16/87 |
| **79 | CPB-UV-005B | 25 | 12/16/87 | 25 | 12/16/87 |
| TOTALS | | >13661 | | 2207 | |

* PERIODICALLY TESTED ON A 6 MONTH INTERVAL

** PERIODICALLY TESTED ON A 3 MONTH INTERVAL

THE 91 ELECTRICAL TESTS ARE REPORTED ON THE FOLLOWING PAGES

ALL INTERIM PERIODIC TESTS ARE REPORTED INDIVIDUALLY IN ATTACHMENT A



FIRST SURVEILLANCE ELECTRICAL PENETRATIONS

Appendix V
Page 5 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|--------|--------------|--------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| Z1 | ENGNZ010 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z2 | ESFNZ020 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z3 | ENGNZ030 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z4 | ESFNZ040 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z5 | ENGNZ050 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z6 | ENHNZ060 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z7 | ENGNZ070 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z8 | ENHNZ080 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z9 | ENHNZ090 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z10 | ENHNZ100 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z11 | ENGNZ110 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z12 | ENHNZ120 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z13 | ENGNZ130 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z14 | EQFNZ140 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z15 | ENHNZ150 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z16 | ENHNZ160 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z17 | ENHNZ170 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z18 | ESFNZ180 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z19 | ENHNZ190 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z20 | ENHNZ200 | 0 | 8/5/87 | 0 | 8/5/87 |
| Z21 | ENHNZ210 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z22 | ESFCZ220 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z23 | EPHCZ230 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z24 | EPHCZ240 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z25 | ESFCZ250 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z26 | ESFCZ260 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z27 | ESFCZ270 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z28 | ESACZ280 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z29 | EPHCZ290 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z30 | ERICZ300 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z31 | ENANZ310 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z32 | ENGNZ320 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z33 | ENANZ330 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z34 | EPHBZ340 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z35 | ERIBZ350 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z36 | ESEBZ360 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z37 | ESABZ370 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z38 | ESFBZ380 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z39 | EPHBZ390 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z40 | ERIBZ400 | 0 | 8/6/87 | 0 | 8/6/87 |
| Z41 | EPHBZ410 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z42 | ESFBZ420 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z43 | EPHNZ430 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z44 | ENANZ440 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z45 | ENANZ450 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z46 | EPHAZ460 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z47 | ESAAZ470 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z48 | EPHAZ480 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z49 | ERIAZ490 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z50 | ESFAZ500 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z51 | ESEAZ510 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z52 | ERIAZ520 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z53 | EHCNZ530 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z54 | ENGNZ540 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z55 | ENHNZ550 | 0 | 8/7/87 | 0 | 8/7/87 |



FIRST SURVEILLANCE ELECTRICAL PENETRATIONS

Appendix V
Page 6 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|--------|----------------------|---------------|---------|--------------|---------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| Z56 | ESFNZ560 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z57 | EQFNZ570 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z58 | ESFNZ580 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z59 | ENHNZ590 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z60 | ENGZN600 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z61 | ENHNZ610 | 0 | 8/7/87 | 0 | 8/7/87 |
| Z62 | ENGZN620 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z63 | ENHNZ630 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z64 | ESFNZ640 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z65 | ENHNZ650 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z66 | ESFNZ660 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z67 | ENHNZ670 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z68 | ENGZN680 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z69 | ENGZN690 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z70 | ENANZ700 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z71 | ENGZN710 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z72 | ESFNZ720 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z73 | ENHNZ730 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z74 | ESFNZ740 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z75 | ESENZ750 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z76 | ESFNZ760 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z77 | ESFDZ770 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z78 | ESFDZ780 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z79 | ERIDZ790 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z80 | ESFNZ800 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z81 | ESADZ810 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z82 | ESFNZ820 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z83 | ESFDZ830 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z84 | ESFNZ840 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z85 | ESADZ850 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z86 | EPHNZ860 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z87 | ESFNZ870 | 0 | 8/13/87 | 0 | 8/13/87 |
| Z88 | ENGZN880 | 0 | 8/14/87 | 0 | 8/14/87 |
| Z89 | ESFNZ890 | 0 | 8/14/87 | 0 | 8/14/87 |
| Z90 | ENGZN900 | 0 | 8/14/87 | 0 | 8/14/87 |
| Z91 | ESFNZ910 | 0 | 8/14/87 | 0 | 8/14/87 |
| TOTALS | | 0 | | 0 | |

FIRST SURVEILLANCE TEST
TYPE "B" AND "C" TEST RESULTS

SUMMARY:

All tests were performed utilizing air or nitrogen as the test media at a minimum pressure of 49.5 psig (Pa) for a minimum duration of 15 minutes after stabilization was achieved.

DATA SUMMARY:

* total allowable (0.60 La)134,001 SCCM
* total "asfound">13661 SCCM
* total "asleft"2207 SCCM

ACCEPTANCE CRITERIA

The combined leakage rate of all Type B and C tests shall be less than 0.60 La or < 134,001 SCCM.

CONCLUSIONS:

The combined leakage rate of all Type B and C tests was 2207 SCCM which is well within the acceptance limit. The data substantiates that an acceptable test was performed in accordance with the requirements of 10CFR50, Appendix J.

1. The first part of the document is a list of names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are given in full, including the street, city, and state. The list is as follows:

2.

3. The second part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the secretary. The names are listed in alphabetical order, and the addresses are given in full, including the street, city, and state. The list is as follows:

4.

5.

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SECOND SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V

Page 8 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|---------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| 6 | DWE-V-0061 | 10 | 4/25/89 | 2 | 1/10/90 |
| 6 | DWE-V-062 | 10 | 4/25/89 | 4.9 | 1/10/90 |
| 7 | FPE-V-0089 | 10 | 4/22/89 | 3.5 | 2/26/90 |
| 7 | FPE-V-0090 | 10 | 4/22/89 | 200 | 2/26/90 |
| 9 | RDA-UV-0023 | 1 | 5/12/89 | 2 | 12/28/89 |
| 9 | RDB-UV-0024 | 690 | 5/12/89 | 9.4 | 12/28/89 |
| 9 | RDB-UV-0407 | 1 | 5/12/89 | 2 | 12/28/89 |
| 21 | SIA-V-164 | 5 | 5/16/89 | 2 | 3/11/90 |
| 21 | SIA-UV-0672 | 1 | 5/16/89 | 2 | 3/11/90 |
| 22 | SIB-V-165 | 13 | 7/19/89 | 2 | 1/5/90 |
| 22 | SIB-UV-0671 | 10 | 5/15/89 | 2 | 1/5/90 |
| 25A | HCB-UV-0044 | 10 | 5/4/89 | 2 | 2/6/90 |
| 25A | HCA-UV-0045 | 10 | 5/4/89 | 2 | 2/6/90 |
| 25B | HCA-UV-0046 | 1 | 5/4/89 | 2 | 2/6/90 |
| 25B | HCB-UV-0047 | 10 | 5/4/89 | 2 | 2/6/90 |
| 26 | SIB-PSV-0189 | 880 | 8/6/89 | 880 | 8/6/89 |
| 26 | SID-UV-0654 | 5758 | 8/8/89 | 1500 | 3/28/90 |
| 26 | SIB-UV-0656 | 8 | 8/7/89 | 18 | 9/17/89 |
| 26 | SIB-HV-690 | 6 | 8/7/89 | 0 | 9/1/89 |
| 27 | SIA-PSV-0179 | 3 | 6/9/89 | 3 | 6/9/89 |
| 27 | SIC-UV-0653 | 3 | 6/9/89 | 19 | 7/20/89 |
| 27 | SIA-UV-0655 | 10 | 6/9/89 | 3 | 7/20/89 |
| 27 | SIA-HV-0691 | 1 | 6/9/89 | 1 | 7/20/89 |
| 28 | SIE-V-0463 | 0 | 7/30/89 | 0 | 1/6/90 |
| 28 | SIE-PSV-0474 | 0 | 7/22/89 | 0 | 1/6/90 |
| 28 | SIA-UV-0682 | 0 | 7/22/89 | 2 | 1/6/90 |
| 29 | GAA-UV-0002 | 2200 | 4-43-90 | 3 | 10/30/90 |
| 29 | GAE-V-015 | 10 | 4/23/89 | 115 | 10/30/90 |
| 30 | GAA-UV-0001 | 2120 | 4/23/89 | 25 | 10/30/89 |
| 30 | GAE-V-011 | 148 | 4/23/89 | 20 | 10/30/89 |
| 31 | IAA-UV-0002 | 10 | 4/22/89 | 2 | 1/14/90 |
| 31 | IAE-V-0021 | 20 | 4/22/89 | 2 | 1/14/90 |
| 33 | NCE-V-0118 | 10 | 4/26/89 | 2 # | 12/29/89 |
| 33 | NCB-UV-0401 | 10 | 4/26/89 | 2 # | 12/29/89 |
| 34 | NCA-UV-0402 | 10 | 4/26/89 | 2 # | 1/4/90 |
| 34 | NCB-UV-0403 | 10 | 4/26/89 | 2 # | 1/3/90 |
| 35 | HPA-UV-0001 | 10 | 5/2/89 | 0 | 1/7/90 |
| 35 | HPA-UV-0003 | 47 | 5/2/89 | 110 | 1/7/90 |
| 35 | HPA-UV-0024 | 10 | 5/2/89 | 0 | 1/7/90 |
| 35 | HPA-HV-0007A | 10 | 5/2/89 | 0 | 1/7/90 |

1. The first part of the document is a list of names and addresses of the members of the committee.

SECOND SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V
Page 9 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|---------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| 36 | HPB-UV-0002 | 10 | 5/2/89 | 2 | 1/23/89 |
| 36 | HPB-UV-0004 | 10 | 5/3/89 | 4 | 1/23/89 |
| 36 | HPB-HV-0008A | 10 | 5/3/89 | 2 | 1/23/89 |
| 38 | HPA-V-002 | 10 | 5/2/89 | 20 | 1/21/89 |
| 38 | HPA-UV-0005 | 214 | 5/2/89 | 50 | 1/21/89 |
| 38 | HPA-HV-0007B | 10 | 5/2/89 | 2 | 1/22/89 |
| 38 | HPA-UV-0023 | 10 | 5/4/89 | 2 | 1/22/89 |
| 39 | HPB-V-004 | 21 | 5/2/89 | 24.5 | 1/22/89 |
| 39 | HPB-UV-0006 | 30 | 5/2/89 | 24.5 | 1/22/89 |
| 39 | HPB-HV-0008B | 10 | 5/2/89 | 2 | 1/22/89 |
| 40 | CHA-UV-0516 | 1 | 6/29/89 | 1 | 6/29/89 |
| 40 | CHB-UV-0523 | 1 | 6/29/89 | 20 | 9/17/89 |
| 40 | CHB-UV-0924 | 1 | 6/29/89 | 1 | 6/29/89 |
| 41 | CHE-VM-0070 | 1 | 6/13/89 | 1 | 6/13/89 |
| 41 | CHA-HV-0524 | 354 | 6/14/89 | 20 | 9/14/89 |
| 41 | CHE-V-0854 | 1 | 6/13/89 | 1 | 6/13/89 |
| 42A | SSB-UV-0201 | 10 | 5/9/89 | 4.9 | 4/12/90 |
| 42A | SSA-UV-0204 | 10 | 5/9/89 | 50 | 1/17/90 |
| 42B | SSB-UV-0202 | 582 | 5/9/89 | 2 | 1/8/90 |
| 42B | SSA-UV-0205 | 800 | 5/9/89 | 2 | 1/8/90 |
| 42C | SSB-UV-0200 | 10 | 5/10/89 | 2 | 3/1/90 |
| 42C | SSA-UV-0203 | 10 | 5/10/89 | 80 | 2/28/90 |
| 43 | CHB-UV-0505 | 1 | 5/10/89 | 1 | 5/10/89 |
| 43 | CHA-UV-0506 | 1 | 5/10/89 | 1 | 5/10/89 |
| 44 | CHA-UV-0560 | 10 | 5/1/89 | 10 | 5/1/89 |
| 44 | CHB-UV-0561 | 10 | 5/1/89 | 10 | 5/1/89 |
| 45 | CHN-V-0494 | 1 | 5/13/89 | 2 | 10/26/89 |
| 45 | CHA-UV-0580 | 156 | 5/1/89 | 2 | 10/26/89 |
| 45 | CHA-UV-0715 | 163 | 4/28/89 | 80 | 10/26/89 |
| 50 | PCE-V-0070 | 2 | 1/30/90 | 2 | 1/30/90 |
| 50 | PCE-V-0071 | 10 | 5/7/89 | 2 | 1/30/90 |
| 51 | PCE-V-0075 | 10 | 5/7/89 | 10 | 5/7/89 |
| 51 | PCE-V-0076 | 10 | 5/7/89 | 10 | 5/7/89 |
| 52 | GRA-UV-0001 | 10 | 5/7/89 | 10 | 5/7/89 |
| 52 | GRB-UV-0002 | 10 | 5/7/89 | 10 | 5/7/89 |
| 53 | FUEL TUBE | 1 | 5/3/89 | 9.5 | 1/21/90 |
| 58 | ILRT | 1 | 4/24/89 | 9.5 | 2/28/90 |
| 59 | IAE-V-0072 | 724 | 4/26/89 | 9.4 | 1/20/90 |
| 59 | IAE-V-0073 | 330 | 4/25/89 | 70 | 1/24/90 |

SECOND SURVEILLANCE MECHANICAL PENETRATIONS

Appendix V
Page 10 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|---------------|----------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| 60 | WCE-V-039 | 10 | 5/3/89 | 2 | 12/30/89 |
| 60 | WCB-UV-0063 | 10 | 5/3/89 | 2 | 12/30/89 |
| 61 | WCB-UV-0061 | 10 | 5/3/89 | 2 | 1/10/90 |
| 61 | WCA-UV-0062 | 10 | 5/3/89 | 2 | 1/10/90 |
| 62B | ILRT PRESS | 1 | 4/26/89 | 2 | 3/27/90 |
| 62C | ILRT PRESS | 1 | 4/26/89 | 2 | 3/27/90 |
| 67 | SID-HV-0331 | 1 | 5/12/89 | 2 | 2/5/90 |
| 67 | SIB-V-0533 | 1 | 5/12/89 | 2 | 1/9/90 |
| 72 | CHB-HV-0255 | 10 | 5/7/89 | 0 | 9/11/89 |
| 72 | CHN-V-0835 | 72 | 5/7/89 | 60 | 9/11/89 |
| 77 | SIC-HV-0321 | 3 | 5/13/89 | 4.9 | 3/13/90 |
| 77 | SIA-V-0523 | 7620 | 5/13/89 | 4 | 12/31/89 |
| * L1 | 140' AIRLOCK | 0 | 12/15/88 | 20 | 4/11/90 |
| L2 | EQUIPT. HATCH | 3 | 4/16/89 | 3 | 3/29/90 |
| * L3 | 100' AIRLOCK | 0 | 12/9/88 | 20 | 4/13/90 |
| ELEC. | Z-1 -- Z-91 | 150 | N/A | 205 | N/A |
| * 56 | CPA-UV-002A | 2 | 4/15/89 | 10 # | 2/8/90 |
| * 56 | CPB-UV-003A | 2 | 4/15/89 | 10 # | 2/8/90 |
| * 57 | CPA-UV-002B | 8.5 | 4/15/89 | 10 # | 2/11/90 |
| * 57 | CPB-UV-003B | 8.5 | 4/15/89 | 10 # | 2/11/90 |
| **78 | CPA-UV-004A | 35 | 5/16/89 | 1 # | 4/3/90 |
| **78 | CPB-UV-005A | 35 | 5/16/89 | 1 # | 4/3/90 |
| **79 | CPA-UV-004B | 193.5 | 5/16/89 | 305 # | 4/2/90 |
| **79 | CPB-UV-005B | 193.5 | 5/16/89 | 305 # | 4/2/90 |
| TOTALS | | 24032 | | 3842 | |

* PERIODICALLY TESTED ON A 6 MONTH INTERVAL

** PERIODICALLY TESTED ON A 3 MONTH INTERVAL

THE 91 ELECTRICAL TESTS ARE INDIVIDUALLY REPORTED ON THE FOLLOWING PAGES
ALL INTERIM PERIODIC TESTS ARE REPORTED INDIVIDUALLY IN ATTACHMENT A

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SECOND SURVEILLANCE ELECTRICAL PENETRATIONS

Appendix V

Page 11 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|---------|--------------|---------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| Z1 | ENGNZ010 | 7 | 5/3/89 | 4 | 3/19/90 |
| Z2 | ESFNZ020 | 1 | 5/3/89 | 2 | 3/19/90 |
| Z3 | ENGNZ030 | 1 | 5/3/89 | 2 | 3/19/90 |
| Z4 | ESFNZ040 | 1 | 5/3/89 | 2 | 3/19/90 |
| Z5 | ENGNZ050 | 4 | 5/3/89 | 2 | 3/19/90 |
| Z6 | ENHNZ060 | 1 | 5/3/89 | 2 | 3/19/90 |
| Z7 | ENGNZ070 | 2 | 5/3/89 | 2 | 3/20/90 |
| Z8 | ENHNZ080 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z9 | ENHNZ090 | 5 | 5/3/89 | 2 | 3/20/90 |
| Z10 | ENHNZ100 | 1 | 5/3/89 | 4 | 3/20/90 |
| Z11 | ENGNZ110 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z12 | ENHNZ120 | 2 | 5/3/89 | 2 | 3/20/90 |
| Z13 | ENGNZ130 | 3 | 5/3/89 | 2 | 3/20/90 |
| Z14 | EQFNZ140 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z15 | ENHNZ150 | 7 | 5/3/89 | 4 | 3/20/90 |
| Z16 | ENHNZ160 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z17 | ENHNZ170 | 4 | 5/3/89 | 2 | 3/20/90 |
| Z18 | ESFNZ180 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z19 | ENHNZ190 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z20 | ENHNZ200 | 1 | 5/3/89 | 2 | 3/20/90 |
| Z21 | ENHNZ210 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z22 | ESFCZ220 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z23 | EPHCZ230 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z24 | EPHCZ240 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z25 | ESFCZ250 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z26 | ESFCZ260 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z27 | ESFCZ270 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z28 | ESACZ280 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z29 | EPHCZ290 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z30 | ERICZ300 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z31 | ENANZ310 | 6 | 5/11/89 | 6 | 5/11/90 |
| Z32 | ENGNZ320 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z33 | ENANZ330 | 2 | 5/4/89 | 2 | 3/20/90 |
| Z34 | EPHBZ340 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z35 | ERIBZ350 | 1 | 5/5/89 | 2 | 3/20/90 |
| Z36 | ESEBZ360 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z37 | ESABZ370 | 1 | 5/5/89 | 2 | 3/20/90 |
| Z38 | ESFBZ380 | 1 | 5/5/89 | 2 | 3/20/90 |
| Z39 | EPHBZ390 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z40 | ERIBZ400 | 1 | 5/5/89 | 2 | 3/20/90 |
| Z41 | EPHBZ410 | 1 | 5/5/89 | 2 | 3/20/90 |
| Z42 | ESFBZ420 | 1 | 5/4/89 | 2 | 3/20/90 |
| Z43 | EPHNZ430 | 6 | 5/5/89 | 5 | 3/20/90 |
| Z44 | ENANZ440 | 1 | 5/11/89 | 1 | 5/11/89 |
| Z45 | ENANZ450 | 1 | 5/11/89 | 1 | 5/11/89 |
| Z46 | EPHAZ460 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z47 | ESAAZ470 | 2 | 4/30/89 | 2 | 3/21/90 |
| Z48 | EPHAZ480 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z49 | ERIAZ490 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z50 | ESFAZ500 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z51 | ESEAZ510 | 5 | 5/5/89 | 2 | 3/21/90 |
| Z52 | ERIAZ520 | 5 | 4/29/89 | 3 | 3/21/90 |
| Z53 | EHCNZ530 | 1 | 5/14/89 | 2 | 3/21/90 |
| Z54 | ENGNZ540 | 3 | 4/30/89 | 2 | 3/21/90 |
| Z55 | ENHNZ550 | 1 | 5/1/89 | 2 | 3/21/90 |

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SECOND SURVEILLANCE ELECTRICAL PENETRATIONS

Appendix V
Page 12 of 19

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|---------------|----------------------|---------------|---------|--------------|---------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| Z56 | ESFNZ560 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z57 | EQFNZ570 | 2 | 5/1/89 | 2 | 3/21/90 |
| Z58 | ESFNZ580 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z59 | ENHNZ590 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z60 | ENGZN600 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z61 | ENHNZ610 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z62 | ENGZN620 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z63 | ENHNZ630 | 1 | 4/30/89 | 2 | 3/21/90 |
| Z64 | ESFNZ640 | 1 | 5/1/89 | 4 | 3/21/90 |
| Z65 | ENHNZ650 | 1 | 4/30/89 | 4 | 3/21/90 |
| Z66 | ESFNZ660 | 3 | 4/30/89 | 4 | 3/21/90 |
| Z67 | ENHNZ670 | 2 | 4/30/89 | 4 | 3/21/90 |
| Z68 | ENGZN680 | 1 | 5/1/89 | 4 | 3/21/90 |
| Z69 | ENGZN690 | 1 | 4/30/89 | 4 | 3/21/90 |
| Z70 | ENANZ700 | 1 | 5/11/89 | 1 | 5/11/90 |
| Z71 | ENGZN710 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z72 | ESFNZ720 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z73 | ENHNZ730 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z74 | ESFNZ740 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z75 | ESENZ750 | 3 | 5/2/89 | 2 | 3/21/90 |
| Z76 | ESFNZ760 | 1 | 5/1/89 | 2 | 3/21/90 |
| Z77 | ESFDZ770 | 1 | 5/2/89 | 2 | 3/21/90 |
| Z78 | ESFDZ780 | 1 | 5/2/89 | 2 | 3/21/90 |
| Z79 | ERIDZ790 | 1 | 5/2/89 | 2 | 3/21/90 |
| Z80 | ESFNZ800 | 1 | 5/2/89 | 2 | 3/21/90 |
| Z81 | ESADZ810 | 1 | 5/2/89 | 2 | 3/21/90 |
| Z82 | ESFNZ820 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z83 | ESFDZ830 | 5 | 5/2/89 | 2 | 3/22/90 |
| Z84 | ESFNZ840 | 2 | 5/2/89 | 2 | 3/22/90 |
| Z85 | ESADZ850 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z86 | EPHNZ860 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z87 | ESFNZ870 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z88 | ENGZN880 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z89 | ESFNZ890 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z90 | ENGZN900 | 1 | 5/2/89 | 2 | 3/22/90 |
| Z91 | ESFNZ910 | 1 | 5/2/89 | 2 | 3/22/90 |
| TOTALS | | 150 | | 205 | |



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SECOND SURVEILLANCE TEST
TYPE "B" AND "C" TEST RESULTS

Appendix V
Page 13 of 19

SUMMARY:

All tests were performed utilizing air or nitrogen as the test media at a minimum pressure of 49.5 psig (Pa) for a minimum duration of 15 minutes after stabilization was achieved.

DATA SUMMARY:

* total allowable (0.60 La)134,001 SCCM
* total "asfound"24032 SCCM
* total "asleft"4502 SCCM

ACCEPTANCE CRITERIA:

The combined leakage rate of all Type B and C tests shall be less than 0.60 La or < 134,001 SCCM.

CONCLUSIONS:

The combined leakage rate of all Type B and C tests was 4502 SCCM which is well within the acceptance limit. The data substantiates that an acceptable test was performed in accordance with the requirements of 10CFR50, Appendix J.

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INTERIM ST PERFORMANCES

42" CONTAINMENT VENTILATION PURGE PENETRATIONS

| PEN # | COMPONENT ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|-------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| * 56 | CPA-UV-002A | >6600 | 10/9/86 | 0 | 10/9/86 |
| * 56 | CPB-UV-003A | 0 | 10/9/86 | 0 | 10/9/86 |
| * 56 | CPA-UV-002A | 0 | 2/21/87 | 0 | 2/21/87 |
| * 56 | CPB-UV-003A | 0 | 2/21/87 | 0 | 2/21/87 |
| * 56 | CPA-UV-002A | 0 | 7/24/87 | 0 | 7/24/87 |
| * 56 | CPB-UV-003A | 0 | 7/24/87 | 0 | 7/24/87 |
| * 56 | CPA-UV-002A | 0 | 8/29/87 | 0 | 8/29/87 |
| * 56 | CPB-UV-003A | 0 | 8/29/87 | 0 | 8/29/87 |
| * 56 | CPA-UV-002A | >6600 | 12/29/87 | 0 | 12/29/87 |
| * 56 | CPB-UV-003A | 0 | 12/29/87 | 0 | 12/29/87 |
| * 56 | CPA-UV-002A | 1100 | 7/6/88 | 1100 | 7/6/88 |
| * 56 | CPB-UV-003A | 1100 | 7/6/88 | 1100 | 7/6/88 |
| * 56 | CPA-UV-002A | 0 | 8/9/88 | 0 | 8/9/88 |
| * 56 | CPB-UV-003A | 0 | 8/9/88 | 0 | 8/9/88 |
| * 56 | CPA-UV-002A | 24.5 | 12/7/88 | 24.5 | 12/7/88 |
| * 56 | CPB-UV-003A | 24.5 | 12/7/88 | 24.5 | 12/7/88 |

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|------|-------------|------|----------|------|----------|
| * 57 | CPA-UV-002B | 0 | 1/6/87 | 0 | 1/6/87 |
| * 57 | CPB-UV-003B | 0 | 1/6/87 | 0 | 1/6/87 |
| * 57 | CPA-UV-002B | 0 | 2/21/87 | 0 | 2/21/87 |
| * 57 | CPB-UV-003B | 0 | 2/21/87 | 0 | 2/21/87 |
| * 57 | CPA-UV-002B | 0 | 5/13/87 | 0 | 5/13/87 |
| * 57 | CPB-UV-003B | 0 | 5/13/87 | 0 | 5/13/87 |
| * 57 | CPA-UV-002B | 0 | 7/24/87 | 0 | 7/24/87 |
| * 57 | CPB-UV-003B | 0 | 7/24/87 | 0 | 7/24/87 |
| * 57 | CPA-UV-002B | 24.5 | 8/29/87 | 24.5 | 8/29/87 |
| * 57 | CPB-UV-003B | 24.5 | 8/29/87 | 24.5 | 8/29/87 |
| * 57 | CPA-UV-002B | 0 | 12/29/87 | 0 | 12/29/87 |
| * 57 | CPB-UV-003B | 0 | 12/29/87 | 0 | 12/29/87 |
| * 57 | CPA-UV-002B | 0 | 7/27/88 | 0 | 7/27/88 |
| * 57 | CPB-UV-003B | 0 | 7/27/88 | 0 | 7/27/88 |
| * 57 | CPA-UV-002B | 0 | 8/9/88 | 0 | 8/9/88 |
| * 57 | CPB-UV-003B | 0 | 8/9/88 | 0 | 8/9/88 |
| * 57 | CPA-UV-002B | 0 | 1/24/89 | 0 | 1/24/89 |
| * 57 | CPB-UV-003B | 0 | 1/24/89 | 0 | 1/24/89 |

Figure 1 is a vertical sequence of 15 line drawings illustrating the development of a chick embryo. The drawings are arranged vertically, with the earliest stage at the top and the latest stage at the bottom. Each drawing is labeled with a number from 1 to 15. The stages show the progression from a single cell to a fully formed chick with a beak and legs.

INTERIM ST PERFORMANCES

8" CONTAINMENT VENTILATION PURGE PENETRATIONS

| PEN # | COMPONENT ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|-------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| **78 | CPA-UV-004A | 0 | 7/24/86 | 0 | 7/24/86 |
| **78 | CPB-UV-005A | 0 | 7/24/86 | 0 | 7/24/86 |
| **78 | CPA-UV-004A | 0 | 10/9/86 | 0 | 10/9/86 |
| **78 | CPB-UV-005A | 0 | 10/9/86 | 0 | 10/9/86 |
| **78 | CPA-UV-004A | 0 | 12/30/86 | 0 | 12/30/86 |
| **78 | CPB-UV-005A | 0 | 12/30/86 | 0 | 12/30/86 |
| **78 | CPA-UV-004A | 0 | 3/17/87 | 0 | 3/17/87 |
| **78 | CPB-UV-005A | 0 | 3/17/87 | 0 | 3/17/87 |
| **78 | CPA-UV-004A | 0 | 6/8/87 | 0 | 6/8/87 |
| **78 | CPB-UV-005A | 0 | 6/8/87 | 0 | 6/8/87 |
| **78 | CPA-UV-004A | 0 | 8/26/87 | 0 | 8/26/87 |
| **78 | CPB-UV-005A | 0 | 8/26/87 | 0 | 8/26/87 |
| **78 | CPA-UV-004A | 0 | 12/16/87 | 0 | 12/16/87 |
| **78 | CPB-UV-005A | 0 | 12/16/87 | 0 | 12/16/87 |
| **78 | CPA-UV-004A | 0 | 3/7/88 | 0 | 3/7/88 |
| **78 | CPB-UV-005A | 0 | 3/7/88 | 0 | 3/7/88 |
| **78 | CPA-UV-004A | 0 | 6/7/88 | 0 | 6/7/88 |
| **78 | CPB-UV-005A | 0 | 6/7/88 | 0 | 6/7/88 |
| **78 | CPA-UV-004A | 0 | 9/2/88 | 0 | 9/2/88 |
| **78 | CPB-UV-005A | 0 | 9/2/88 | 0 | 9/2/88 |
| **78 | CPA-UV-004A | 0 | 11/29/88 | 0 | 11/29/88 |
| **78 | CPB-UV-005A | 0 | 11/29/88 | 0 | 11/29/88 |
| **78 | CPA-UV-004A | 0 | 2/15/89 | 0 | 2/15/89 |
| **78 | CPB-UV-005A | 0 | 2/15/89 | 0 | 2/15/89 |

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INTERIM ST PERFORMANCES

8" CONTAINMENT VENTILATION PURGE PENETRATIONS

| PEN # | COMPONENT ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|-------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| **79 | CPA-UV-004B | 0 | 7/24/86 | 0 | 7/24/86 |
| **79 | CPB-UV-005B | 0 | 7/24/86 | 0 | 7/24/86 |
| **79 | CPA-UV-004B | 0 | 8/9/86 | 0 | 8/9/86 |
| **79 | CPB-UV-005B | 0 | 8/9/86 | 0 | 8/9/86 |
| **79 | CPA-UV-004B | 35 | 12/30/88 | 35 | 12/30/88 |
| **79 | CPB-UV-005B | 35 | 12/30/88 | 35 | 12/30/88 |
| **79 | CPA-UV-004B | 0 | 3/17/87 | 0 | 3/17/87 |
| **79 | CPB-UV-005B | 0 | 3/17/87 | 0 | 3/17/87 |
| **79 | CPA-UV-004B | 0 | 6/8/87 | 0 | 6/8/87 |
| **79 | CPB-UV-005B | 0 | 6/8/87 | 0 | 6/8/87 |
| **79 | CPA-UV-004B | 0 | 8/26/87 | 0 | 8/26/87 |
| **79 | CPB-UV-005B | 0 | 8/26/87 | 0 | 8/26/87 |
| **79 | CPA-UV-004B | 25 | 12/16/87 | 25 | 12/16/87 |
| **79 | CPB-UV-005B | 25 | 12/16/87 | 25 | 12/16/87 |
| **79 | CPA-UV-004B | 0 | 3/7/88 | 0 | 3/7/88 |
| **79 | CPB-UV-005B | 0 | 3/7/88 | 0 | 3/7/88 |
| **79 | CPA-UV-004B | 25 | 6/7/88 | 25 | 6/7/88 |
| **79 | CPB-UV-005B | 25 | 6/7/88 | 25 | 6/7/88 |
| **79 | CPA-UV-004B | 15 | 9/2/88 | 15 | 9/2/88 |
| **79 | CPB-UV-005B | 15 | 9/2/88 | 15 | 9/2/88 |
| **79 | CPA-UV-004B | 13 | 11/29/88 | 13 | 11/29/88 |
| **79 | CPB-UV-005B | 13 | 11/29/88 | 13 | 11/29/88 |
| **79 | CPA-UV-004B | 330 | 2/15/89 | 330 | 2/15/89 |
| **79 | CPB-UV-005B | 330 | 2/15/89 | 330 | 2/15/89 |

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INTERIM ST PERFORMANCES **PENETRATION (L-1) 140' CONTAINMENT AIRLOCK**

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|----------|--------------|----------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| L-1 | 1CZCNM01 | 0 | 9/9/86 | 0 | 9/9/86 |
| L-1 | 1CZCNM01 | 0 | 3/4/87 | 0 | 3/4/87 |
| L-1 | 1CZCNM01 | 0 | 8/13/87 | 0 | 8/13/87 |
| L-1 | 1CZCNM01 | 0 | 1/20/88 | 0 | 1/20/88 |
| L-1 | 1CZCNM01 | 0 | 6/29/88 | 0 | 6/29/88 |
| L-1 | 1CZCNM01 | 0 | 12/15/88 | 0 | 12/15/88 |

INTERIM ST PERFORMANCES **PENETRATION (L-3) 100' CONTAINMENT EMERGENCY AIRLOCK**

| PEN # | COMPONENT
ID. NO. | AS FOUND DATA | | AS LEFT DATA | |
|-------|----------------------|---------------|---------|--------------|---------|
| | | LEAKAGE SCCM | DATE | LEAKAGE SCCM | DATE |
| L-3 | 1CZCNM02 | 0 | 9/6/86 | 0 | 9/6/86 |
| L-3 | 1CZCNM02 | 0 | 2/19/87 | 0 | 2/19/87 |
| L-3 | 1CZCNM02 | 0 | 7/30/87 | 0 | 7/30/87 |
| L-3 | 1CZCNM02 | 0 | 1/12/88 | 0 | 1/12/88 |
| L-3 | 1CZCNM02 | 0 | 6/30/88 | 0 | 6/30/88 |
| L-3 | 1CZCNM02 | 0 | 12/9/88 | 0 | 12/9/88 |



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INTERIM SURVEILLANCE TEST
TYPE "B" AND "C" TEST RESULTS

Appendix V
Page 18 of 19

SUMMARY:

All tests were performed utilizing air as the test media at a minimum pressure of 49.5 psig (Pa) for a minimum duration of 15 minutes after stabilization was achieved.

ACCEPTANCE CRITERIA:

8" Containment Purge Penetrations 78 and 79 (.01La)=2233 sccm
42" Containment Purge Penetrations 56 and 57 (.05La)=11166 sccm
100' Emergency Airlock Penetration L1 (.05La)=11166 sccm
140' Personnel Airlock Penetration L3 (.05La)=11166 sccm

CONCLUSIONS:

The containment airlock Type B tests as indicated, have consistently trended very low acceptable leakage values. The 8" Containment Purge Penetrations have trended consistently low leakages with no failures.

The 42" Containment Purge Penetrations have indicated two valve failures since the last LLRT. The failures occurred in October 1986 and December 1987. These valves close upon limit switch actuation and were corrected utilizing a adjustment of the valve disk closed position. Both failures were considered isolated occurrences and produced leak tight subsequent LLRT's. Though the Unit One 42" purge valves had not failed an LLRT since December 1987 these valves and others supplied by the manufacturer have been under investigation in the past year as a result of a failed LLRT conducted on Penetration 57 in October 1989 in Unit Three. A root cause investigation of the incident revealed the valves experienced a axial misalignment due to internal spiral pin failures. The failed spiral pins

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INTERIM SURVEILLANCE TEST
TYPE "B" AND "C" TEST RESULTS

Appendix V
Page 19 of 19

CONCLUSIONS: (Continued)

were examined and determined to have failed as a result of intergranular fracture, most probably the result of hydrogen embrittlement. Since the pin material is susceptible to this failure mechanism, as a corrective measure all pins located in valves supplied by the manufacturer were replaced with suitable substitutes in Unit One and have had successful subsequent LLRT's performed. These LLRT's are denoted with a(#) in the asleft data column of the second surveillance test data set.

For additional details concerning the containment purge valve pin failures the following LER was issued.

Licensee Event Report LER-89-018-01

