

## INSTRUMENTATION

### 3/4.3.7 MONITORING INSTRUMENTATION

#### RADIATION MONITORING INSTRUMENTATION

##### LIMITING CONDITION FOR OPERATION

3.3.7.1 The radiation monitoring instrumentation channels shown in Table 3.3.7.1-1 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3.7.1-1.

##### ACTION:

- a. With a radiation monitoring instrumentation channel alarm/trip setpoint exceeding the value shown in Table 3.3.7.1-1, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION required by Table 3.3.7.1-1.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

##### SURVEILLANCE REQUIREMENTS

4.3.7.1 Each of the above required radiation monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the conditions and at the frequencies shown in Table 4.3.7.1-1.

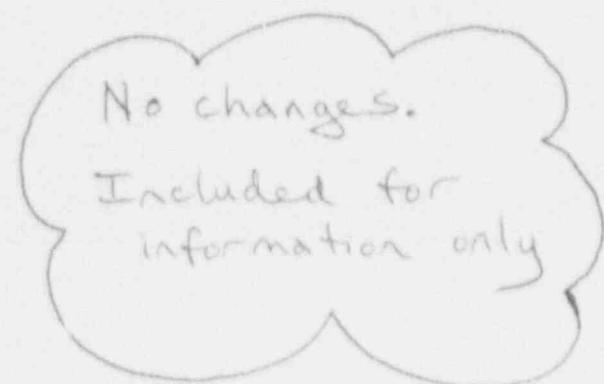


TABLE 3.3.7.1-1

## RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENTATION</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE CONDITIONS</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Fuel Handling Area Vent Exhaust Radiation Monitor (Noble Gas)	1	**	< 1500 cpm	70
2. Offgas Post-treatment Radiation Monitor	1	*	$\leq 1 \times 10^6$ cpm (b)	71
3. Control Room Ventilation Radiation Monitor (Noble Gas)	1	ALL OPERATIONAL CONDITIONS and ***	$\leq 800$ cpm	72
4. Offgas Pre-treatment Radiation Monitor	1	*	(c)	73
5. <u>Area Monitors</u>				
a. <u>Criticality Monitors</u>				
1) Fuel Preparation Pool	1	---	$\rightarrow 5 \text{ mR/hr}$ and $\leftarrow 20 \text{ mR/hr}$ (a)	74
2) Spent Fuel Storage Pool	1	--##	$\rightarrow 5 \text{ mR/hr}$ and $\leftarrow 20 \text{ mR/hr}$ (a)	74
3) Upper Containment Pools	1	--###	$\rightarrow 5 \text{ mR/hr}$ and $\leftarrow 20 \text{ mR/hr}$ (a)	74
b. Control Room Area Radiation Monitor	1	At all times	$\leq 2.5 \text{ mR/hr}$ (a)	75 74

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from page 3/4 3-63  
to this page for ease of use.

Move the  
remaining Notes  
to page  
3/4 3-62

TABLE 3.3.7.1-1 (Continued)

RADIATION MONITORING INSTRUMENTATION

TABLE NOTATION

- \* When the offgas treatment system is operating.
- \*\* With irradiated fuel in the Fuel Handling Building.
- \*\*\* When irradiated fuel is being handled in the Fuel Handling Building or primary containment.
  - (a) Alarm only.
  - (b) Isolates the offgas system.
  - (c) Alarm setpoint to be set in accordance with Specification 3.11.2.7.
    - # With fuel in the fuel preparation pool.
    - ## With fuel in the spent fuel storage pool.
    - ### With fuel stored in the upper containment pools.

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TABLE 3.3.7.1-1 (Continued)  
RADIATION MONITORING INSTRUMENTATION

ACTION

- ACTION 70 - With the required monitor inoperable, obtain and analyze at least one grab sample of the monitored parameter at least once per 24 hours. In addition, with the Unit 1 Vent noble gas monitor inoperable, restore the inoperable noble gas monitor to OPERABLE status within 24 hours or place the inoperable noble gas monitor in the tripped condition.
- ACTION 71 - With the required monitor inoperable, release via this pathway may continue provided grab samples are taken at least once per 8 hours and these samples are analyzed for gross activity within 24 hours.
- ACTION 72 - With the required monitor inoperable, assure a portable continuous noble gas monitor or the Control Room Area Radiation Monitor is OPERABLE in the control room within 24 hours. Restore the inoperable monitor to OPERABLE status within 7 days, otherwise, initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation within 1 hour.
- ACTION 73 - With the number of channels OPERABLE less than required by Minimum Channels OPERABLE requirement, release via this pathway may continue for up to 30 days provided:
- a. The offgas system is not bypassed, and
  - b. The offgas post-treatment monitor is OPERABLE, and
  - c. Grab samples are taken at least once per 8 hours and analyzed within the following 4 hours;
- Otherwise, be in at least HOT SHUTDOWN within 12 hours.
- ACTION 74 - With the required monitor inoperable, assure a portable area radiation monitor with the same alarm setpoint is OPERABLE in the vicinity of the installed monitor during any fuel movement. If no fuel movement is being made, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 75 - With the required monitor inoperable, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

TABLE 4.3.7.1-1

## RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENTATION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. Fuel Handling Area Vent Exhaust Radiation Monitor (Noble Gas)	S	M	R	**
2. Offgas Post-treatment Radiation Monitor	S	M	R	*
3. Control Room Ventilation Radiation Monitor (Noble Gas)	S	M	R	AT ALL OPERATIONAL CONDITIONS and ***
4. Offgas Pre-treatment Radiation Monitor	S	M	R	*
5. <u>Area Monitors</u>				
a. <u>Criticality Monitors</u>				
1) Fuel Preparation Pool	S	M	R	+
2) Spent Fuel Storage Pool	S	M	R	##
3) Upper Containment Pools	S	M	R	###
b. <u>Control Room Area Radiation Monitor</u>	S	M	R	At all times

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to this page for ease of use.

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page 3/4 3-65

TABLE 4.3.7.1-1 (Continued)

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATION

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because the remaining notes  
are being moved to page 3/4 3-65

\* When the offgas treatment system is operating.

\*\* With irradiated fuel in the Fuel Handling Building.

\*\*\* When irradiated fuel is being handled in the Fuel Handling Building or primary containment.

# With fuel in the fuel preparation pool.

## With fuel in the spent fuel storage pool.

### With fuel stored in the upper containment pools.

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The attached Graphs 1 through 26 chart the water levels in the monitor wells and Highland Reservoir since data collection began. Many of the well water levels peaked shortly after pumping tailings to the basin ceased and have been dropping for about seven years. Attachments 3A (compliance wells), 3B (TDSS wells), 3C (background wells), 3D (ore sands wells), 3E (mine backfill wells) and 3F (Highland Reservoir) provide the 1988-1991 water quality data. These attachments are transcribed from the monitoring data provided to the NRC in the semi-annual monitoring reports. Annual averages are provided for each parameter.

The data are discussed below by class of well.

Compliance Wells (125, 175, 176, 177):

The water levels continue to fall in these wells. The levels in 175 and 177 have been erratic since seepage pumping began in 1989. Automatic start/stop operation of the pumps and replacement of worn pumps causes the drawn down levels of the pumped wells to fluctuate.

There has been some improvement in water quality since pumping began. This is true for Cadmium, Chromium, Lead and Selenium. The 1991 average Uranium concentrations from the wells still exceeded the 0.43 pCi/l standard in the license. However, only well 125 exceeds the EPA proposed 30 pCi/l standard for municipal drinking water. Chrome, Radium 226 plus 228 and Thorium 230 sometimes exceed their respective license standards. Chrome only exceeded the license standard one time at one well in 1991. All Radium values are well below the EPA proposed 20 pCi/l individual standards for Radium 226 and Radium 228 for municipal drinking water. The highest Thorium 230 values are below those that have occurred at the background wells. Following the EPA practice of assuming an analytical result below a detection limit equals one half the detection limit and averaging all the results from the compliance wells for 1991, the wells met all the drinking water Table 5C standards in Appendix A of 10CFR Part 40 in 1991.

The Nickel concentration at well 175 remains well above the license standard of 0.02 mg/l which is based on background as there is no Table 5C value for Nickel. The concentration appears to be increasing slowly. However, the average 1991 concentration of 1.145 mg/l is about the same as that in the tailings solution when the mill was in operation. Therefore, the concentration at well 175 is likely to become much higher. The Nickel concentration at well 180, just a short distance further from the tailings basin, remains at or near the detection level (0.02 mg/l). The mine backfill at well 180 and between it and well 175 effectively removes Nickel from solution. The backfill is an effective bar to Nickel migration further away from the basin.

Tailings Dam Sandstone Monitor Wells (TDSS) (015, 112, 114, 117, 120, 127, 178, 179, 181, 183):

The water levels continue to fall in these wells. The levels in wells 117 and 178 remain erratic. These are pumped mitigation wells. Their water levels are affected by automatic pump start/stop and pump replacement. The average decline of the wells was about 1.0 foot in 1991. Levels have fallen from 10 to 60 feet in the monitor wells since 1984. The water level at well 015 has fallen so low that it can not be sampled.

The annual average chemical and radionuclide concentrations have not changed very much since 1988 in the TDSS monitor wells. Some small improvement has occurred in well 112. The pH measurement has trended slightly downward in wells 179, 181 and 183 to the north of the tailings basin.

TDSS Background Monitor Wells (134, 172, 174, 182):

The water levels of wells 134 and 174 show no trend. The levels at wells 172 and 182 continue to fall. This is part of the general decline of water levels in the tailings basin area.

Obvious water quality trends are not seen at the wells. This relative constancy is reasonable for background wells. The Thorium-230 and Uranium concentrations at the background wells have regularly exceeded the license standards without the tailings seepage being the cause. Well 182 was the only well used to establish background for the license standards. Its Uranium concentration exceeded the standard in July, 1991 which further indicates the standard is set near the low end of the span of the natural background.

Ore Sands Monitor Wells (116, 128, 129, 148):

Levels are slowly falling in these wells. The water elevations at the west end of the basin near Highland Reservoir are far below the levels to the east. The water levels remain well below those in the overlying TDSS. No trends are obvious in the water quality data.

Mine Backfill Wells (171, 173, 180):

The water levels continue to fall. The rate of fall is less than at the TDSS wells closest to the backfill which indicates the seepage mound is becoming flatter as expected. This flattening should express itself as a reduction in the seepage rate.

The EPRCO 1982 study found that Highland shales and sandstones attenuate seepage constituents. The backfill is a mixture of shales and sandstones. This accounts for the generally better water quality in the mine backfill than at the TDSS wells.

Since the mine backfill contains low grade mineralized materials, elevated Uranium, Thorium 230 and Radium concentrations can be expected in some saturated zones. This is seen at well 180. The concentrations are higher than at wells 114 and 175 which are much closer to the

basin. The lower concentrations at the TDSS wells indicates that the higher well 180 concentrations are not due to radionuclides in the tailings seepage .

Highland Reservoir (167):

The reservoir water level continues to rise at nearly 6 feet per year. The water quality reflects no significant impact from tailings seepage.

Summary:

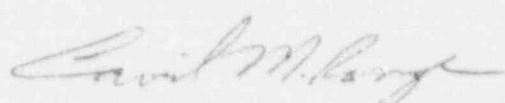
The application of significant resources to seepage mitigation since November 1989 has reduced the mass in the TDSS aquifer of potentially hazardous constituents by about 16.5 kilograms of non-radioactive and 594 microcuries of radioactive material. Some 80% of the radioactive material is Natural Uranium of which 0.7 kilograms has been removed. The average seepage water pumped to the evaporation lagoons in 1991 met all the Table 5C limits found in Appendix A of 10CFR Part 40.

Most of the concentrations of potentially hazardous constituents are now below the license standards. Those that still exceed the standards regularly are at or below proposed EPA water protection standards for municipal drinking water. Nickel at well 175 is the one obvious exception. However, the Nickel is confined to the area between the nearby mine backfill and the basin. The backfill serves as an effective barrier to further Nickel migration. The backfill has virtually no potential for water development because of low permeability.

The tailings seepage has not impacted the concentrations of potentially hazardous constituents in Highland Reservoir. The water levels in the TDSS, mine backfill and ore sand wells are dropping. The drop in the TDSS well water levels since 1984 has been quite large and continues at about one foot per year.

Please call me at (713) 978-5438 if there are any questions on this report.

Yours truly,



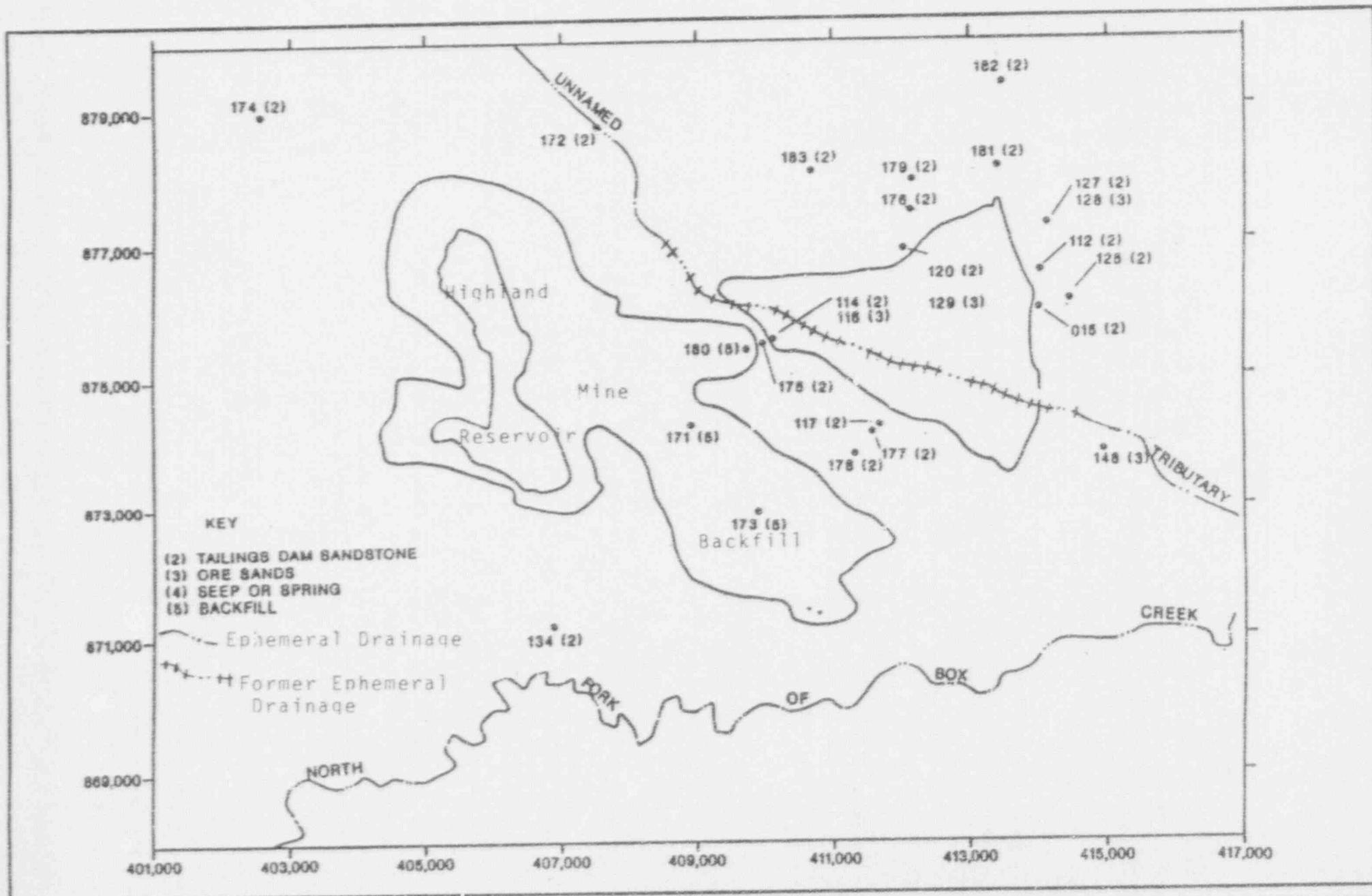
David M. Range  
Staff Environmental Engineer

DMR:an

Attachment

c: L. Davis - WWL  
J.D. Patton

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MAP 1  
GROUND WATER MONITORING NETWORK

Date: January 1991

Project: Highland

ATTACHMENT 1  
 Exxon Coal and Minerals Company  
 Highland Reclamation Project  
 Seepage Mitigation Project  
 Volume pumped from Mitigation Wells

<u>Date</u>	<u>Monthly</u>	<u>Total</u>	<u>Volume</u>	<u>Pumped</u>	<u>(K Gallons)</u>
	<u>114</u>	<u>117</u>	<u>175</u>	<u>177</u>	<u>178</u>
Pre-Dec. 89	0	0	0	0	0
Dec. 89	<u>2</u>	<u>111</u>	<u>124</u>	<u>93</u>	<u>97</u>
Total 1989 and Total Project	2	111	124	93	97
Jan. 90	<u>0</u>	<u>.98</u>	<u>113</u>	<u>98</u>	<u>99</u>
Total Project	2	209	237	191	196
Feb. 90	<u>0</u>	<u>.99</u>	<u>93</u>	<u>87</u>	<u>72</u>
Total Project	2	308	330	278	268
March 90	<u>0</u>	<u>114</u>	<u>78</u>	<u>58</u>	<u>74</u>
Total Project	2	422	408	336	342
April 90	<u>0</u>	<u>.11</u>	<u>6</u>	<u>11</u>	<u>7</u>
Total Project	2	433	414	347	349
May 90	<u>0</u>	<u>.6</u>	<u>5</u>	<u>5</u>	<u>2</u>
Total Project	2	439	419	352	351
June 90	<u>0</u>	<u>112</u>	<u>112</u>	<u>95</u>	<u>45</u>
Total Project	2	551	531	447	396
July 90	<u>0</u>	<u>116</u>	<u>112</u>	<u>94</u>	<u>37</u>
Total Project	2	667	643	541	433

ATTACHMENT 1 CONTINUED  
Volume Pumped From Mitigation Wells

<u>Date</u>	<u>Monthly</u>	<u>Total</u>	<u>Volume</u>	<u>Pumped</u>	(K Gallons)
	114	117	175	177	178
Aug. 90	0	112	74	98	67
Total Project	2	779	717	639	500
Sept. 90	0	95	115	95	114
Total Project	2	874	832	734	614
Oct. 90	0	47	119	56	34
Total Project	2	921	951	790	648
Nov. 90	0	73	101	91	24
Total Project	2	944	1052	881	672
Dec. 90	0	100	100	27	24
Total 1990	0	983	1028	815	600
Total Project	2	1094	1152	908	697
Jan. 91	0	102	125	27	75
Total Project	2	1196	1277	935	772
Feb. 91	0	66	104	25	52
Total Project	2	1262	1381	960	824
Mar. 91	0	85	112	25	17
Total Project	2	1347	1493	1185	841
Apr. 91	0	95	106	16	8
Total Project	2	1442	1599	1201	849

ATTACHMENT 1 CONTINUED  
Volume Pumped From Mitigation Wells

Date	Monthly	Total	Volume	Pumped	(K Gallons)
	114	117	175	177	178
May 91	0	49	94	15	12
Total Project	2	1491	1693	1216	861
June 91	0	48	88	10	14
Total Project	2	1539	1781	1226	875
July 91	0	103	88	32	17
Total Project	2	1642	1869	1258	892
Aug 91	0	59	80	35	35
Total Project	2	1701	1949	1293	927
September 91	0	44	117	54	60
Total Project	2	1745	2066	1347	987
October 91	0	67	104	33	34
Total Project	2	1812	2170	1380	1021
November 91	0	90	91	12	8
Total Project	2	1902	2261	1392	1029
December 91	0	14	106	8	6
Total 1991	0	933	1038	532	387
Total Project	2	1916	2367	1400	1035

Attachment 2  
Concentration And Mass Of Constituents Removed From Aquifer

<u>1991</u>		<u>117</u>	<u>175</u>	<u>177</u>	<u>178</u>	<u>Total</u>
Well						
Volume Liquid Removed (K Gallons)		933	1038	532	387	2890
 <b>Arsenic</b>						
License Standard (mg/l)	0.05					
1991 Average (mg/l)	<0.001	<0.001	<0.001	<0.001		
Removed from Aquifer (gram)	0	0	0	0	0	0
 <b>Cadmium</b>						
License Standard (mg/l)	0.01					
1991 Average (mg/l)	<0.010	<0.010	<0.010	<0.010		
Removed from Aquifer (gram)	0	0	0	0	0	0
 <b>Chromium</b>						
License Standard (mg/l)	0.05					
1991 Average (mg/l)	<0.05	<0.05	<0.055	<0.05		
Removed from Aquifer (gram)	0	0	<110	0	< 110	
 <b>Gross Alpha</b>						
License Standard (pCi/l)	15.0					
1991 Average (pCi/l)	< 2.0	< 2.7	1.0	2.8		
Removed from Aquifer (uCi)	0	0	0	0	0	0
 <b>Lead</b>						
License Standard (mg/l)	0.05					
1991 Average (mg/l)	< 0.05	< 0.05	< 0.05	< 0.05		
Removed from Aquifer (gram)	0	0	0	0	0	0
 <b>Nickel</b>						
License Standard (mg/l)	0.02					
1991 Average (mg/l)	< 0.035	1.145	<0.115	<0.035		
Removed from Aquifer (gram)	< 124	4480	<240	<51	<4,895	
 <b>Radium 226 &amp; 228</b>						
License Standard (pCi/l)	5.0					
1991 Average (pCi/l)	< 3.35	6.4	<2.4	<3.45		
Removal from Aquifer (uCi)	0	25	0	0	25	
 <b>Selenium</b>						
License Standard (mg/l)	0.01					
1991 Average (mg/l)	<0.005	<0.001	<0.001	<0.001		
Removed from Aquifer (gram)	0	0	0	0	0	0

Attachment 2 Continued  
Concentration And Mass Of Constituents Removed From Aquifer

1991

Well	<u>117</u>	<u>175</u>	<u>177</u>	<u>178</u>	<u>Total</u>
Volume Liquid Removed (K Gallons)	933	1038	532	387	2890

Thorium 230

License Standard (pCi/l)	0.55				
1991 Average (pCi/l)	<0.20	<0.2	<0.2	<0.2	
Removed from Aquifer (uCi/l)	0	0	0	0	0

Uranium

License Standard (pCi/l)	0.43				
1991 Average (pCi/l)	49	<1.0	28	1.2	
Removed from Aquifer (uCi)	173	<4	56	2	<235

Total Dissolved Solids

License Standard (mg/l)	No Limit				
1991 Average (mg/l)	4505	6049	4687	4525	
Removed from Aquifer (Metric Tons)	16	24	9	7	56

1991

Total Kg Potentially Hazardous Constituents Removed 1991	< 5.1
Total uCi Potentially Hazardous Constituents Removed 1991	< 260
Total Metric Tons Total Dissolved Solids Removed 1991	56

Since Pumping Began in 1989

Total Kg Potentially Hazardous Constituents Removed	< 16.5
Total uCi Potentially Hazardous Constituents Removed	< 594
Total Metric Tons Total Dissolved Solids Removed	120

Please note that constituents are only considered removed from the aquifer in the 1991 data if their concentration exceeded the license standard. This is because it only necessary to remove them by pumping if they exceeded the standard.

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WELL NUMBER	WELL NAME	DATE	ATTACHMENT 3A: TOSS COMPLIANCE MONITOR WELLS																
			pH (5.0-7)	TDS (mg/L)	SiO <sub>2</sub> (mg/L)	Cl (mg/L)	Na (mg/L)	Mg (mg/L)	Ca (mg/L)	Cr (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Gra. Alpha (pCi/L)	Ra226 (pCi/L)	Ra228 (pCi/L)	Th230 (pCi/L)	Uran (pCi/L)	
125	TDM-XIV	02/29/88	7.4	36.14	1650	190	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.20	< 0.001	0.20	0.70	0.70	
		05/13/88	7.5	5784	2300	195	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	1.00	0.007	3.50	0.50	18.00	
		08/30/88	7.3	3298	1790	208	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	1.30	0.049	0.20	0.90	65.00	
		09/15/88	7.3	3567	1810	211	3.38	< 0.001	0.007	0.060	0.060	0.060	0.058	3.5	0.80	1.20	2.00	0.40	
		09/29/88	7.4	3565	1670	211	2.85	< 0.001	0.009	< 0.010	< 0.010	< 0.010	< 0.010	0.95	0.331	1.6	0.30	3.70	
		10/15/88	7.6	3117	1580	211	2.67	< 0.001	0.006	< 0.010	< 0.010	< 0.010	< 0.010	0.05	0.049	5.0	0.70	3.10	
		11/28/88	7.6	3138	1780	206	< 0.001	0.008	< 0.001	0.008	< 0.001	< 0.001	< 0.001	1.10	0.049	3.00	0.80	58.00	
Average	1988	7.5	34.56	1760	219	283	2.97	< 0.001	0.008	< 0.003	< 0.008	< 0.008	< 0.008	2.7	1.16	2.57	3.17	42.70	
		02/25/89	7.5	3161	1480	209	317	1.77	< 0.001	< 0.002	< 0.010	< 0.020	< 0.020	< 0.05	0.032	1.9	1.50	1.70	3.20
		05/22/89	7.6	2747	1710	215	369	0.66	0.007	0.012	< 0.012	< 0.020	< 0.020	< 0.05	< 0.001	1.2	0.30	1.20	1.50
		07/18/89	7.5	2514	1840	180	249	1.24	< 0.001	0.003	< 0.010	< 0.020	< 0.020	< 0.05	0.038	5.0	0.70	1.70	0.40
		10/19/89	7.4	2872	1570	210	540	1.03	< 0.002	< 0.006	< 0.010	< 0.020	< 0.020	< 0.05	0.026	1.4	0.93	1.20	2.13
Average	1989	7.5	2746	1650	208	316	1.03	< 0.002	< 0.006	< 0.010	< 0.010	< 0.020	< 0.020	< 0.05	0.026	1.4	0.93	1.20	2.13
		01/22/90	7.3	2871	1380	145	252	< 0.01	< 0.001	0.010	< 0.010	< 0.020	< 0.020	< 0.05	0.026	1.5	0.90	2.60	3.50
		05/02/90	7.2	2228	1140	125	152	0.29	< 0.001	0.012	< 0.012	< 0.020	< 0.020	< 0.05	0.026	1.2	0.30	1.20	1.50
		08/23/90	7.5	2506	1500	145	227	0.43	< 0.001	0.004	< 0.010	< 0.020	< 0.020	< 0.05	0.038	5.0	0.70	1.70	0.40
		10/18/90	7.3	2667	1390	140	228	0.28	< 0.001	0.007	< 0.010	< 0.020	< 0.020	< 0.05	0.026	2.5	0.40	1.50	1.90
Average	1990	7.4	2568	1350	139	210	< 0.25	< 0.001	0.007	< 0.010	< 0.020	< 0.020	< 0.020	< 0.05	0.026	2.0	0.65	2.55	3.20
		01/10/91	7.2	2568	1531	117	235	0.04	< 0.001	0.010	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 2.20
		04/18/91	7.4	2526	1390	116	225	0.50	< 0.001	0.010	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	1.0	0.20	< 1.20	< 2.00
		07/03/91	7.6	2405	1240	109	214	0.04	0.002	< 0.010	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	0.70	< 1.00	< 2.00
		10/10/91	7.4	2370	1279	106	194	0.36	< 0.002	< 0.010	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	0.70	< 1.00	< 2.00
Average	1991	7...	2467	1362	110	217	0.19	< 0.002	< 0.010	< 0.010	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 0.45	< 1.00	< 2.00
		08/17/91	6.2	5685	2720	455	0.12	< 0.001	0.009	0.520	0.720	0.720	0.720	0.12	< 0.001	5.1	2.10	2.60	4.70
		09/01/91	6.2	5620	2940	448	0.92	< 0.001	0.010	0.580	0.730	0.730	0.730	0.16	< 0.001	8.1	1.10	10.00	11.10
		09/14/91	6.2	5298	3420	331	0.03	< 0.001	0.010	0.610	0.810	0.810	0.810	0.003	3.6	1.50	5.80	7.30	2.30
		09/28/91	6.4	4929	3270	375	291	0.12	< 0.001	0.012	0.510	0.650	0.650	0.650	< 0.001	8.2	1.00	9.40	10.60
Average	1991	6.2	5135	5138	405	291	0.30	< 0.001	0.010	0.415	0.772	0.772	0.772	< 0.11	< 0.002	5.8	1.43	6.90	8.38

## ATTACHMENT 3A. TOSS COMPLIANCE MONITOR WELLS

WELL NUMBER	WELL NAME	DATE	pH (± 0.1)	TDS (mg/l)	Si (mg/l)	Na (mg/l)	NO3 (mg/l)	As (mg/l)	Cd (mg/l)	Cr (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Gross Alpha (Bq/256 ml)	Ra-226 (Bq/256 ml)	Ra-228 (Bq/256 ml)	Ra-228-Ra-226 (Bq/256 ml)	URAT (Bq/256 ml)	URAT (Bq/256 ml)
175	TDM XII	01/12/89	6.5	5810	3900	410	279	0.35 < 0.001	0.012	0.200	0.900	< 0.05	0.007	7.1	2.30	6.20	8.30	1.00	0.80
		04/25/89	6.4	5766	3600	480	299	0.26 < 0.001	0.014	0.270	0.720	< 0.05	< 0.001	2.3	0.60	2.30	0.90	< 0.001	< 0.20
		07/14/89	6.4	5393	3000	410	284	0.07 < 0.001	0.011	0.400	0.730	< 0.05	0.001	1.6	1.30	0.80	2.10	0.90	0.30
		10/20/89	6.4	5542	3900	420	360	0.06											
	Average 1989	6.4	5526	3295	420	316	0.13 < 0.001	0.014	0.230	1.100	< 0.05	< 0.001	4.9	1.60	3.50	4.90	1.00	0.40	
		6/16/90	6.1	3925	2480	507	0.17 < 0.001	0.013	0.850	0.870	< 0.05	< 0.003	4.9	1.60	2.95	4.35	0.95	< 0.42	
		05/05/90	6.2	6940	3340	490	308	0.01 < 0.001	0.014	1.970	1.190	< 0.05	0.001	1.5	1.30	1.60	2.90	1.50	0.90
		08/22/90	6.2	5264	3140	395	316	0.49 < 0.001	0.013	0.490	0.990	< 0.05	0.001	6.0	1.10	1.90	3.00	0.10	< 0.20
	Average 1990	6.2	5731	3295	402	306	< 0.26 < 0.001	0.014	1.250	1.090	< 0.05	0.001	3.6	1.20	1.75	2.95	0.80	< 0.55	
		01/13/91	6.4	6772	4092	356	374	< 0.01 < 0.001	< 0.010	< 0.050	1.020	< 0.05	< 0.001	4.4	2.00	5.40	7.40	< 0.20	< 0.20
		04/21/91	6.1	7165	4139	369	315	< 0.01 < 0.001	< 0.010	< 0.050	1.020	< 0.05	< 0.001	4.4	2.00	5.40	7.40	< 0.20	< 0.20
		07/03/91	6.1	6235	4091	346	394	< 0.01 < 0.001	< 0.010	< 0.050	1.300	< 0.05	< 0.001	< 1.0	0.90	4.50	5.40	< 0.20	1.80
	Average 1991	6.1	5097	2710	366	315	< 0.01 < 0.001	< 0.010	< 0.050	1.300	< 0.05	< 0.001	< 1.0	0.90	4.50	5.40	< 0.20	1.80	
		6/2	6049	3641	359	350	< 0.01 < 0.001	< 0.010	< 0.050	1.145	< 0.05	< 0.001	< 2.7	1.45	5.60	6.40	< 0.20	< 1.00	
776	TDM XII	08/21/90	8.0	2516	950	175	64	< 0.001	0.003	< 0.10	0.050	< 0.05	< 0.001	4.1	1.30	2.40	3.70	1.10	0.05
		09/07/90	8.4	2545	1270	180	36	< 0.001	0.005	< 0.010	0.020	< 0.05	< 0.001	3.6	0.90	3.90	4.80	0.50	0.05
		09/21/90	8.2	2524	1410	185	13	< 0.001	0.007	< 0.010	0.040	< 0.05	< 0.001	3.1	1.10	3.60	4.70	0.60	1.20
		10/05/90	8.4	2370	1500	172	193	0.25 < 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	6.3	2.10	4.80	6.90	0.90	1.30
	Average 1990	8.2	2421	1262	178	195	0.30 < 0.001	< 0.005	< 0.010	< 0.019	< 0.05	< 0.001	4.3	1.35	3.68	5.03	0.78	0.65	
		01/18/91	8.0	2641	182	197	0.39 < 0.001	0.006	< 0.010	0.140	< 0.05	0.006	5.6	1.90	5.00	6.90	0.50	1.70	
		04/26/91	8.2	2491	1800	215	195	< 0.01 < 0.001	0.007	< 0.010	< 0.020	< 0.05	< 0.001	3.0	0.90	2.90	2.90	< 0.20	< 0.20
		07/17/91	8.1	2546	1542	250	195	0.17 < 0.001	0.006	< 0.010	< 0.020	< 0.05	< 0.001	1.4	1.10	0.90	> 0.00	0.60	0.80
	Average 1991	8.2	2581	1662	213	198	< 0.16 < 0.001	0.006	< 0.010	< 0.020	< 0.05	< 0.002	5.3	1.30	2.67	3.93	0.43	< 0.90	

## ATTACHMENT 3A - TSS COMPLIANCE MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS	SO4	Cl	Nox	As	Cd	Cr	Mn	Ph	Se	Grn Algae	Ra226	Ra228	Ra226+228	Ra230	UNBAL	
			(5.0.1)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(pcf/l)	(pcf/l)	(pcf/l)	(pcf/l)	(pcf/l)		
176	TDR XLI1	01/17/90	8.0	2066	1630	1920	< 0.01	< 0.001	0.012	< 0.010	0.030	- 0.05	0.001	1.6	1.30	2.00	2.30	0.20	0.30	
		04/24/90	7.6	2786	1160	375	238	0.08	-	-	-	-	-	-	-	-	-	-	-	
		08/24/90	8.1	2576	1500	172	206	0.03	< 0.001	0.008	0.030	< 0.020	< 0.05	< 0.001	2.2	0.60	2.50	2.90	0.20	< 0.20
	Average 1990	8.0	2796	1353	198	291	< 0.01	-	-	-	-	-	-	-	-	-	-	-	-	
		10/18/90	7.9	2536	1400	234	212	< 0.04	< 0.001	0.010	< 0.026	< 0.025	< 0.05	< 0.001	1.9	0.95	2.15	2.60	0.20	< 0.25
		01/11/91	7.8	2695	1631	178	210	0.01	< 0.001	0.010	< 0.050	< 0.050	< 0.05	< 0.001	1.8	0.20	< 1.00	< 1.20	1.40	< 0.20
		04/18/91	7.3	2752	1548	182	160	< 0.05	-	-	-	-	-	-	-	-	-	-	-	
		07/03/91	7.0	2752	1483	187	207	< 0.01	< 0.001	-	-	-	-	-	-	-	-	-	-	
	Average 1991	7.5	2886	1536	181	192	< 0.01	-	-	-	-	-	-	-	-	-	-	-	-	
		10/18/91	7.4	2763	1625	182	193	< 0.01	< 0.001	0.010	< 0.050	< 0.035	< 0.05	< 0.001	< 1.4	0.25	< 1.00	< 1.25	< 0.80	< 1.30
		11/11/91	6.1	4974	2080	325	< 0.01	< 0.001	0.010	< 0.010	0.110	< 0.05	< 0.001	3.0	1.60	2.00	3.60	1.20	4.30	
		09/07/92	6.1	4450	2250	308	0.40	< 0.001	0.016	< 0.010	0.120	< 0.05	< 0.001	3.6	0.80	4.30	5.10	0.50	6.00	
		09/21/92	6.3	4526	2510	290	6.12	< 0.001	0.013	< 0.010	0.150	< 0.05	< 0.001	2.9	1.00	6.50	7.50	0.50	6.00	
	Average 1992	6.3	5169	2670	348	285	< 0.01	-	-	-	-	-	-	-	-	-	-	-	-	
		10/18/92	6.2	4825	2328	315	283	< 0.17	< 0.001	0.011	< 0.019	0.160	< 0.05	< 0.001	2.8	1.20	6.90	8.10	1.00	4.10
		11/11/92	6.2	4825	2328	315	283	< 0.17	< 0.001	0.012	< 0.019	0.150	< 0.05	< 0.001	3.1	1.15	4.92	6.07	0.80	5.75
		01/11/93	6.5	4167	2800	282	285	0.75	< 0.001	0.011	< 0.010	< 0.020	< 0.05	< 0.002	4.6	1.89	5.70	7.50	0.70	6.00
		04/24/93	6.4	5037	3050	460	277	0.25	< 0.001	0.011	< 0.010	< 0.020	< 0.05	< 0.001	4.0	1.65	2.40	4.00	1.80	20.00
		07/15/93	6.4	4636	2690	320	273	0.16	< 0.001	0.006	< 0.010	< 0.020	< 0.05	< 0.003	2.0	1.60	1.20	3.00	1.40	6.00
		10/20/93	6.6	4432	2850	310	350	0.18	-	-	-	-	-	-	-	-	-	-	-	
	Average 1993	6.4	4325	2920	310	280	0.64	< 0.001	0.015	0.060	0.090	< 0.05	< 0.001	3.0	1.40	1.60	3.00	1.10	4.70	
		12/18/93	6.3	4325	2696	356	293	0.35	< 0.001	0.011	< 0.018	< 0.036	< 0.05	< 0.002	3.4	1.65	2.72	4.37	1.25	4.80
		01/18/94	6.3	4105	2400	290	274	< 0.01	< 0.001	0.015	< 0.010	0.060	< 0.05	< 0.001	2.1	1.40	1.60	3.00	0.60	5.00
		05/30/94	5.9	5022	2880	320	317	2.36	-	-	-	-	-	-	-	-	-	-	-	
		08/24/94	6.6	3183	2170	275	295	0.13	< 0.001	0.009	0.040	0.070	< 0.05	< 0.001	6.1	1.60	2.10	3.70	0.20	25.00
	Average 1994	6.3	4134	2688	286	290	< 0.66	< 0.001	0.012	< 0.025	0.065	< 0.05	< 0.001	4.1	1.50	1.85	3.35	0.60	30.50	

## ATTACHMENT 3A TDS COMPLIANCE MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS	S04	Cl	NH3	NO3	Ka	Cd	Cr	Ni	Pb	Se	Gro Alpha	Rn226	Rn228	Rn226+228	Rn220	URAT
			(S.D.)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(pcf/l)	(pcf/l)	(pcf/l)	(pcf/l)	(pcf/l)	
177	TDM-XL111	01/15/91	6.2	4899	2903	264	322	0.04	< 0.001	< 0.010	0.060	0.200	< 0.05	< 0.001	0.9	0.70	< 1.00	< 1.70	0.20	22.50
		06/21/91	6.6	4638	2446	258	248	0.04	< 0.01	< 0.010	0.050	0.100	< 0.05	< 0.001	1.0	1.20	1.80	3.00	< 0.20	34.10
		07/03/91	6.4	4657	2576	257	269	< 0.01	< 0.001	< 0.010	0.050	0.020	< 0.05	< 0.001						
		10/16/91	6.4	4656	2513	272	271	0.39	< 0.001	< 0.010	0.050	0.020	< 0.05	< 0.001						
Average 1991			6.4	4687	2560	282	278	< 0.12	< 0.001	< 0.010	0.055	0.110	< 0.05	< 0.001	1.0	0.95	< 1.40	< 2.35	< 0.20	28.30

SAMPLE NUMBER	WELL NAME	DATE	ATTACHMENT 3B TDS MONITOR WELLS																	
			pH	TDS (mg/l)	SO4 (mg/l)	Cl (mg/l)	Na (mg/l)	Mg (mg/l)	Ca (mg/l)	Cr (mg/l)	H (mg/l)	Pb (mg/l)	Se (mg/l)	Grs Alkline (pcF/l)	Rn226 (pcF/l)	Rn228 (pcF/l)	UNA			
015 TOM WELL 0	01/27/88	6.9	34.24	1420	265	< 0.001	< 0.001	< 0.001	< 0.001	0.007	0.004	0.80	0.002	1.70	0.72	69.00				
	04/10/88	6.9	4275	1900	290	< 0.001	< 0.001	< 0.001	< 0.001	0.009	0.006	0.90	0.001	2.60	0.80	57.00				
	07/20/88	6.9	4221	1660	348	< 0.001	< 0.001	< 0.001	< 0.001	0.002	0.001	1.70	0.007	1.70	2.50	186.00				
	08/30/88	6.9	3423	1950	273	0.83 < 0.001	0.007	0.030	0.040	0.040	0.040	1.5	0.90	7.60	3.50	0.40	52.00			
	09/14/88	6.8	3811	1893	308	0.64 < 0.001	0.009	0.007	0.010	0.060	0.060	0.09	0.001	1.20	2.20	3.40	0.60	51.00		
	09/28/88	6.9	3819	1810	300	265	0.36 < 0.001	0.001	0.010	0.060	0.060	0.08	0.001	1.6	1.50	2.00	3.50	0.90	44.00	
	Average 1988	6.9	4201	2303	360	265	0.72 < 0.051	0.007	0.010 < 0.020	0.05	0.008	0.008	3.1	1.50	2.00	3.50	2.40	53.00		
				5889	1599	311	254	0.64 < 0.001	0.008	0.020	0.040	0.050	0.003	2.0	1.80	2.20	3.50	1.20	77.00	
	01/27/89	7.4	3230	1900	346	257	0.33 < 0.001	0.007	0.010	0.060	< 0.05	0.001	4.3	1.80	3.20	5.00	0.70	88.00		
	04/28/89	7.2	3923	2180	290	268	0.29 < 0.001	0.006	0.010	0.020	< 0.05	0.001	2.8	1.40	1.20	2.40	1.40	27.00		
	07/18/89	7.4	3562	1850	270	260	0.38 < 0.001	< 0.005	0.010	0.040	< 0.05	0.001	1.6	1.20	0.90	2.10	0.80	62.00		
	10/19/89	7.4	3296	1700	265	310	0.2	274	0.34 < 0.001	< 0.006	< 0.010	< 0.040	< 0.05	2.9	1.50	1.77	2.45	0.97	52.00	
	Average 1989	7.4	3378	1925	290	271	< 0.01 < 0.001	0.013	< 0.010	< 0.020	< 0.05	0.001	1.7	1.30	2.00	3.50	0.30	69.00		
	01/19/90	7.0	1726	1590	220	264	< 0.05	< 0.001	0.013	< 0.010	< 0.020	< 0.05	0.001	1.7	1.30	2.00	3.50	0.30	69.00	
	05/19/90	7.2	3540	1780	255	243	0.08	261	278	0.10	264	< 0.01	0.001	1.7	1.30	2.00	3.50	0.30	69.00	
	06/23/90	Net Enough Water to Sample																		
	11/08/90	7.1	3610	1560	275	273	264	< 0.05	< 0.001	0.013	< 0.010	< 0.020	< 0.05	0.001	1.7	1.30	2.00	3.50	0.30	69.00
	Average 1990	7.1	2938	1547	273	264	< 0.05	< 0.001	0.013	< 0.010	< 0.020	< 0.05	0.001	1.7	1.30	2.00	3.50	0.30	69.00	
	01/10/91	7.1	4059	2225	261	264	< 0.01 < 0.001	0.010	< 0.005	< 0.050	< 0.050	< 0.05	0.001	3.1	1.50	10.40	11.90	< 0.20	162.80	
	04/18/91	7.0	3932	2009	256	264	0.10	278	278	0.10	264	< 0.01	0.001	1.7	1.30	2.00	3.50	0.30	69.00	
	06/30/91	Not Enough Water to Sample																		
	10/07/91	Well Dry																		
	Average 1991	7.0	4016	2117	258	264	< 0.06	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	3.1	1.50	10.40	11.90	< 0.20	162.80	
	112 TDM 911																			
	01/30/98	7.1	3679	1340	236	< 0.001	0.004	< 0.010	< 0.007	0.010	< 0.005	0.100	0.001	0.70	0.70	0.70	0.70	0.70	0.70	
	04/30/98	7.1	3432	1640	220	< 0.001	0.007	< 0.010	< 0.001	0.010	< 0.005	0.001	1.20	1.20	2.10	2.10	2.10	2.10		
	07/18/98	7.0	3715	1500	215	< 0.001	0.001	0.012	0.036	< 0.005	0.005	0.195	0.001	1.00	1.00	1.00	1.00	1.00	1.00	
	08/31/98	7.3	3487	1750	242	0.28	< 0.001	0.006	0.020	< 0.020	< 0.005	0.139	2.5	0.70	4.10	4.10	4.10	4.10		
	09/15/98	7.1	3748	1910	202	1.16	0.005	0.008	< 0.010	0.030	0.006	0.006	2.2	1.30	4.80	4.80	4.80	4.80		
	09/29/98	7.2	3927	1780	211	252	1.11	0.001	0.008	< 0.010	0.040	0.005	0.184	4.0	3.50	4.00	4.00	4.00	4.00	
	10/14/98	7.2	4392	3770	220	217	0.72 < 0.001	0.008	< 0.010	< 0.020	< 0.020	< 0.05	0.172	6.2	0.60	4.60	4.60	4.60	4.60	
	Average 1998	7.1	3747	1609	217	252	0.94 < 0.002	0.008	< 0.010	< 0.020	< 0.020	< 0.05	< 0.126	3.7	0.99	4.45	5.53	0.87	48.00	

## ATTACHMENT 3B TOSS MONITOR WELLS (CONTINUED)

WELL NUMBER	WELL NAME	DATE	TDS (\$.)	TDS (mg/l)	Cl (mg/l)	Na (mg/l)	NO3 (mg/l)	Ac (mg/l)	Cd (mg/l)	Cr (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Gro Alpha radioactive (pcU/l)	Ra226 (pcU/l)	Ra228 (pcU/l)	Th228 (pcU/l)	Th230 (pcU/l)		
112	TDH 811	01/26/89	7.2	3208	1900	319	245	35.90	< 0.001	0.0007	< 0.010	0.030	< 0.05	0.097	1.9	1.50	4.00	5.50	6.60	18.00
		04/27/89	7.5	3192	1810	260	250	12.20	< 0.001	0.0007	< 0.010	0.020	< 0.05	0.097	2.3	6.90	2.00	6.90	6.30	6.90
		07/18/89	7.3	3045	1830	260	244	13.30	< 0.001	0.010	< 0.010	0.060	< 0.05	0.260	1.7	1.40	0.80			6.50
		10/19/89	7.0	3198	1920	230	309	32.00												
Average 1989		7.3	3193	1883	247	262	14.00	< 0.001	0.0006	< 0.010	< 0.037	< 0.05	< 0.159	1.3	1.27	2.27	5.50	6.45	9.80	
		01/19/90	7.0	2350	1630	220	259	11.80	< 0.001	0.012	< 0.010	< 0.020	< 0.05	0.177	1.4	1.20	3.30	4.50	6.30	11.00
		05/01/90	7.2	3528	1750	225	227	11.80												
		08/23/90	7.3	3203	1520	202	263	4.47	< 0.001	0.0009	< 0.010	< 0.020	< 0.05	0.169	2.6	0.70	1.60	2.30	6.20	10.00
		10/19/90	7.0	3578	1680	216	253	3.09												
Average 1990		7.1	3185	1660	216	216	7.79	< 0.001	0.011	< 0.010	< 0.020	< 0.05	0.173	2.1	0.95	2.45	3.40	6.15	10.50	
		01/11/91	7.1	3675	2043	207	260	11.50	< 0.001	0.010	< 0.050	< 0.050	< 0.05	0.148	1.0	0.60	4.20	4.80	< 0.20	10.00
		04/18/91	7.2	3874	2094	193	253	15.80												
		07/04/91	7.1	3671	2028	201	262	12.20	< 0.001	0.010	< 0.050	< 0.025	< 0.05	0.166	< 1.0	0.30	1.60	1.90	< 0.20	25.30
		10/10/91	7.3	3865	2059	204	246	6.80												
Average 1991		7.1	3766	2051	201	253	12.58	< 0.001	0.010	< 0.050	< 0.035	< 0.05	0.156	< 1.0	0.45	2.90	3.35	< 0.20	17.65	
		01/30/92	6.5	6616	3700	560	4	0.001	0.013	< 0.100	< 0.05	0.037	1.50							
		04/30/92	6.3	5800	5400	400	4	0.001	0.013	0.010	< 0.05	0.003	1.40							
		07/14/92	6.1	5800	2160	275	4	0.001	0.016	0.020	< 0.05	0.003	1.30							
		08/29/92	6.1	6310	4420	387	0.03	< 0.001	0.008	0.610	0.710		0.09	0.014	3.4	0.70	5.40	6.10	1.50	0.20
		09/15/92	6.0	7240	5300	388	4	0.01	< 0.001	0.011	0.620	0.820	0.10	0.001	0.7	0.90	6.80	7.70	< 0.05	0.10
		09/29/92	6.0	7245	5140	376	0.12	< 0.001	0.012	0.600	0.820	0.11	< 0.001	12.5	0.80	6.80	7.60	0.40	1.00	
		10/14/92	6.1	6002	5010	352	359	0.37	< 0.001	0.020	0.120	< 0.020	< 0.05	< 0.001	10.1	1.50	8.80	10.30	0.80	< 0.05
Average 1992		6.2	6755	4444	364	359	< 0.14	< 0.001	0.013	< 0.297	< 0.390	< 0.088	< 0.005	6.7	1.13	6.95	7.80	0.85	< 0.17	
		01/26/92	6.3	5394	4420	391	302	0.17	< 0.001	0.010	0.200	0.510	< 0.05	0.096	3.2	1.50	4.00	5.30	6.70	1.10
		04/26/92	6.4	5542	7050	390	328	< 0.01	< 0.001	0.010	0.790	0.690	< 0.05	0.002	1.4	1.10	0.90	2.00	0.80	< 0.20
		07/14/92	6.3	6797	4398	408	313	0.28	< 0.001	0.010	0.470	0.410	< 0.05	0.002						
		10/23/92	6.2	6676	5988	390	390	0.17												
		12/12/92	6.1	5851	2350	440	315	0.01	< 0.001	0.014	0.280	1.170	< 0.05	0.001	2.9	3.00	3.60	4.60	1.80	< 0.20
Average 1992		6.3	6014	4420	394	329	< 0.13	< 0.001	0.011	0.005	< 0.001	0.700	< 0.05	< 0.001	2.5	1.20	2.85	4.05	1.10	< 0.50

## ATTACHMENT 3B TOSS MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH (5.0-11)	TDS (mg/l)	Si (mg/l)	Ca (mg/l)	Mg (mg/l)	Na (mg/l)	Mn (mg/l)	As (mg/l)	Cd (mg/l)	Cr (mg/l)	Fe (mg/l)	Pb (mg/l)	Se (mg/l)	Gross Alpha (pCi/l)	Rn-226 (pCi/l)	Rn-228 (pCi/l)	Th-230 (pCi/l)	U-234 (pCi/l)
114	TOW IX	01/16/90	5.8	354.7	326.0	4.20	328	< 0.01	< 0.001	0.013	1.860	1.200	< 0.05	< 0.001	2.6	1.40	3.00	5.00	0.80	< 0.20
		05/03/90	6.2	6086	394.0	650	286	< 0.01												
		06/24/90	6.5	56.54	310.0	6.00	318	< 0.50	< 0.001	0.012	6.500	0.970	< 0.05	0.002	4.3	1.80	1.60	3.60	0.30	< 0.20
	Average	1990	6.3	6506	360.0	3.00	279	0.13	< 0.16	< 0.001	0.012	1.190	1.689	< 0.05	< 0.002	3.4	1.60	2.40	3.55	< 0.20
115	TOW IX	01/13/91	5.7	7232	475.7	320	368	< 0.01	< 0.001	< 0.010	< 0.050	1.170	< 0.05	< 0.001	5.3	3.20	7.40	10.60	< 0.20	< 0.20
		04/18/91	6.1	5673	401.7	343	338	< 0.01												
		07/06/91	6.1	5187	3289	303	356	< 0.01	< 0.001	< 0.010	< 0.050	0.700	< 0.05	< 0.001	< 1.0	0.70	< 1.00	< 1.70	< 0.20	< 0.20
		10/14/91	6.2	6982	405.9	252	304	< 0.01												
	Average	1991	6.0	5419	401.1	320	337	< 0.01	< 0.001	< 0.010	< 0.050	0.935	< 0.05	< 0.001	< 3.2	1.65	< 4.20	< 6.15	< 0.20	< 0.20
117	TOW XII	01/30/86	6.3	6514	270			< 0.001	0.013	< 0.010			< 0.05	0.004	1.60					
		04/30/86	6.4	4933	300			6.003	0.014	< 0.010			< 0.05	0.004	2.10					
		07/18/86	6.2	504.6	1970	265		< 0.001	0.017	< 0.020			0.09	0.007	3.00					
		08/25/86	6.2	4414	2329	2000	0.15	0.001	0.008	< 0.010	0.070	0.038	< 0.01	6.3	1.30	6.50	8.00	1.20	44.00	
		09/09/86	6.2	51864	2350	318	0.20	0.001	0.012	< 0.010	0.050	-0.10	0.061	3.5	1.20	2.70	3.90	0.00	55.00	
		09/23/86	6.2	424.3	270.0	308	0.11	< 0.001	0.011	0.020	0.020	0.06	< 0.001	5.1	1.30	6.70	8.00	0.40	51.00	
		10/15/86	6.2	4664	236.0	352	275	0.26	< 0.001	0.010	< 0.010	0.030	< 0.001	11.8	1.40	7.70	9.10	0.60	25.00	
	Average	1986	6.2	6497	2380	350	275	0.18	< 0.002	0.012	< 0.015	< 0.050	< 0.001	6.2	1.70	5.90	7.25	0.80	42.17	
		04/26/90	6.4	5676	2510	305	277	< 0.01	0.002	0.016	< 0.010	2.020	< 0.05	< 0.001	5.3	1.10	1.80	2.70	1.20	26.00
		07/13/90	6.3	6214	2650	350	267	0.30	< 0.001	0.020	< 0.010	0.180	< 0.05	0.003	1.7	1.20	0.60	1.80	0.90	14.00
		10/20/90	6.4	394.1	2560	340	0.16													
		12/28/90	6.4	5277	2150	350	282	0.24	< 0.001	0.013	0.040	0.020	< 0.05	< 0.001	3.2	1.40	1.90	3.30	1.40	46.00
		Average	1989	6.4	3577	2468	325	292	< 0.18	< 0.002	0.012	< 0.020	< 0.05	< 0.002	2.7	1.25	1.43	2.60	1.17	28.00

WELL NUMBER	WELL NAME	DATE	pH (5.0)	TDS (mg/l)	SDS (mg/l)	CL (mg/l)	Ba (mg/l)	Mg (mg/l)	Ca (mg/l)	Sr (mg/l)	Pb (mg/l)	Se (mg/l)	Cr (mg/l)	Cd (mg/l)	As (mg/l)	Hg (mg/l)	Rn-226 (Bq/l)	Ra-228 (Bq/l)	Ra-228-226 (Bq/l)	Th-232 (Bq/l)	U-234 (Bq/l)
1117	TDR-X21	01/18/90	6.2	2812	2120	316	273	< 0.01	< 0.001	0.812	< 0.010	< 0.020	< 0.05	0.001	2.9	1.2%	3.30	4.56	1.70	27.00	
		05/03/90	6.3	4344	2060	255	256	< 0.01	0.008	0.007	0.007	< 0.010	< 0.05	0.001	2.0	0.8%	1.30	2.10	0.20	19.00	
		06/22/90	6.5	5606	1750	228	269	0.08	< 0.001	0.009	< 0.010	< 0.020	< 0.05	< 0.001	2.0	0.8%	1.30	2.10	0.20	19.00	
		10/19/90	6.5	4339	2280	266	267	0.08	< 0.001	0.010	< 0.010	< 0.020	< 0.05	< 0.001	2.9	1.2%	2.30	3.35	0.95	26.50	
Average 1990		6.4	3728	2128	263	266	< 0.05	< 0.001	0.010	< 0.010	< 0.020	< 0.05	< 0.001	2.9	1.2%	2.30	3.35	0.95	26.50		
		01/13/91	6.6	4386	2642	245	264	0.37	< 0.001	< 0.010	< 0.050	< 0.020	< 0.05	< 0.001	3.4	0.6%	4.70	5.30	< 0.20	45.10	
		04/21/91	6.3	4631	2531	249	271	1.20	< 0.001	0.010	< 0.050	< 0.020	< 0.05	< 0.001	3.4	0.6%	4.70	5.30	< 0.20	45.10	
		07/08/91	6.5	4555	2521	246	264	0.10	< 0.001	0.010	< 0.050	< 0.020	< 0.05	< 0.001	4.0	1.0%	4.40	< 1.00	< 1.40	< 0.20	52.80
		09/14/91	6.5	4519	2546	276	275	0.45	< 0.001	0.010	< 0.050	< 0.020	< 0.05	< 0.001	4.1	0.9%	4.50	5.50	< 0.50	52.80	
Average 1991		6.4	4395	2448	254	254	0.53	< 0.001	0.010	< 0.050	< 0.020	< 0.05	< 0.001	4.0	0.9%	4.50	5.50	< 0.50	52.80		
		01/20/92	7.0	1276	1460	2620	< 0.01	0.002	0.005	< 0.010	< 0.05	0.006	0.001	1.40	3.50	0.20					
		04/30/92	7.0	2864	1950	289	< 0.01	0.002	0.005	< 0.010	< 0.05	0.006	0.001	1.40	2.50	0.20					
		07/13/92	7.2	2890	1660	235	< 0.01	0.002	0.005	< 0.010	< 0.05	0.006	0.001	1.40	2.50	0.20					
		08/25/92	6.9	5286	1610	273	0.44	0.002	0.007	0.020	0.020	0.006	0.001	3.5	3.50	0.20					
		09/29/92	6.9	4090	2050	273	0.44	0.003	0.010	0.020	0.020	0.006	0.001	4.1	0.70	2.90	3.40	0.60	42.00		
		10/23/92	7.0	2766	1670	277	0.15	0.002	0.010	< 0.020	< 0.050	0.006	0.001	3.2	0.80	3.70	4.50	0.50	57.00		
		10/15/92	7.0	3584	1610	280	168	0.68	< 0.001	0.010	< 0.020	< 0.050	0.003	0.001	5.2	0.70	6.70	6.80	0.50	68.00	
Average 1992		7.0	3374	1701	268	168	< 0.34	< 0.002	0.010	< 0.010	< 0.040	< 0.07	< 0.002	4.0	0.93	4.15	6.80	0.90	< 0.50	68.00	
		01/27/93	7.2	2586	1700	316	168	0.29	0.052	0.007	< 0.010	0.010	0.005	0.001	3.1	1.2%	3.70	5.00	0.60	53.00	
		04/15/93	7.2	2978	1980	166	< 0.01	0.002	0.007	0.009	0.030	< 0.05	< 0.001	3.4	0.6%	4.60	5.30	0.90	28.00		
		07/17/93	7.2	3137	1660	180	165	0.06	< 0.001	0.003	0.005	< 0.05	< 0.001	1.4	0.90	0.60	< 0.50	18.00			
		10/19/93	7.2	1900	240	165	< 0.01	0.002	0.004	< 0.010	0.010	0.005	< 0.001	2.6	0.9%	2.35	3.27	0.60	27.00		
Keto 1992		7.2	2946	1760	287	166	< 0.15	0.002	0.004	< 0.010	0.010	0.005	< 0.001	2.7	1.0%	2.30	3.30	1.50	27.00		
		01/16/90	8.0	2171	1629	240	150	< 0.01	0.001	0.014	< 0.010	< 0.020	< 0.05	0.001	2.7	1.0%	2.30	3.30	1.50	27.00	
		05/25/90	7.5	2182	1740	310	196	< 0.01	0.001	0.014	< 0.010	< 0.020	< 0.05	0.001	2.7	1.0%	2.30	3.30	1.50	27.00	
		05/15/90	7.1	1779	1610	265	184	0.08	< 0.001	0.005	0.005	0.005	0.005	0.001	2.8	1.0%	2.30	3.30	1.50	27.00	
		10/18/90	7.2	3627	1890	305	292	0.19	< 0.001	0.003	0.005	0.005	0.005	0.001	2.8	1.0%	2.30	3.30	1.50	27.00	
Aver 1990		7.2	2862	1650	302	205	< 0.11	0.003	0.005	0.008	< 0.025	< 0.05	< 0.001	3.3	1.0%	1.65	1.75	2.80	1.00	25.50	
Aver 1991		7.2	3728	2128	263	266	< 0.05	< 0.001	0.010	< 0.010	< 0.020	< 0.05	< 0.001	2.9	1.2%	2.30	3.35	0.95	26.50		

## ATTACHMENT 3B T255 MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS (mg/L)	S04 (mg/L)	Cl (mg/L)	Na (mg/L)	NO3 (mg/L)	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Gra Alpha Ra226 (pCi/L)	Ra228 (pCi/L)	Ra228 (pCi/L)	Uran (pCi/L)			
120	7108 3001	01/11/91	6.5	3957	2019	285	< 0.01	0.008	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	1.1	0.00	2.40	< 0.20	42.40			
	04/18/91	7.1	4174	2546	259	224	0.17														
	07/04/91	7.1	4056	1986	265	212	< 0.01	0.005	< 0.010	< 0.050	< 0.020	< 0.05	< 0.001	1.0	0.50	< 1.50	< 0.20	42.80			
	Average 1991	6.9	4091	2053	263	196	< 0.01	268	209	< 0.02	0.007	< 0.010	< 0.050	< 0.035	< 0.05	< 0.001	< 1.1	0.70	< 1.70	< 0.20	46.10
127	1208 8339111	02/29/88	7.7	982	933	12	< 0.001								0.90	0.016	0.80	1.10	0.50		
	05/31/88	7.6	931	348	14		< 0.001								1.00	0.017	1.50	0.10	53.00		
	08/31/88	7.7	269	410	13		< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.1	0.70	1.70	2.40	0.40	42.00		
	09/15/88	7.7	011	3594	22		< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	4.1	1.10	1.10	2.20	0.50	57.00		
	09/29/88	7.8	1051	590	11		< 0.28	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.001	1.3	0.80	3.60	4.40	0.50	46.00		
	10/18/88	7.8	818	354	12		0.26	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.002	1.5	0.90	2.80	3.70	0.60	31.00		
	11/28/88	7.5	875	221	16		< 0.001							1.00	0.016	1.70	1.10	52.00			
	Average 1988	7.7	917	641	14	82	< 0.14	< 0.301	< 0.003	< 0.010	< 0.020	< 0.044	< 0.005	2.0	1.07	2.30	3.18	0.61	37.50		
	02/23/89	8.2	969	430	15	128	< 0.20	< 0.091	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.7	1.80	1.90	3.70	0.50	33.00		
	05/10/89	7.9	920	490	14	112	0.19	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.1	1.50	1.80	3.30	0.50	25.00		
	07/18/89	7.9	873	530	16	83	0.45	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.2	0.90	1.60	1.60	0.60	42.00		
	09/12/89	7.9	879	440	15	91	0.35														
	Average 1989	8.0	910	565	15	104	0.32	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.7	1.40	1.47	2.87	0.53	35.00		
	01/12/90	7.7	767	320	17	86	< 0.01	< 0.001	< 0.004	< 0.010	< 0.020	< 0.05	< 0.002	1.5	0.70	1.50	2.20	0.70	56.00		
	05/01/90	8.0	852	410	55	70	< 0.01														
	08/23/90	7.8	759	296	30	86	0.65	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.1	0.60	1.30	1.90	0.20	26.00		
	10/12/90	7.7	861	340	16	89	0.56														
	Average 1990	7.8	805	360	30	84	< 0.31	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.002	1.8	0.65	1.40	2.05	0.55	41.00		
	01/11/91	7.9	863	451	9.4	94.4	0.02	< 0.001	< 0.004	< 0.010	< 0.050	< 0.05	< 0.001	2.3	1.80	3.70	5.30	< 0.20	34.50		
	04/21/91	7.5	820	418	9.8	94.9	0.96														
	07/04/91	7.7	925	447	10.2	85.0	< 0.01	< 0.001	< 0.010	< 0.050	< 0.020	< 0.05	< 0.001	1.0	0.30	< 1.50	< 0.20	32.10			
	10/14/91	7.2	857	423	6.7	82.9	0.05														
	Average 1991	7.3	866	435	8.5	89.3	< 0.06	< 0.001	< 0.010	< 0.050	< 0.035	< 0.05	< 0.001	1.7	0.95	< 2.35	< 3.50	< 0.20	33.30		

## ATTACHMENT 3B TOSS MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH (5.11.3)	TDS (mg/l)	SDA (mg/l)	El (mg/l)	Na (mg/l)	Mg (mg/l)	Ks (mg/l)	Cd (mg/l)	Cr (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Gre Alpha (pc/l)	Ra226 (pc/l)	Ra228 (pc/l)	Ra228+228 (pc/l)	Th230 (pc/l)	Uranium (pc/l)
178	TDM XLIV	08/17/85	6.6	4028	315	< 0.01	< 0.001	0.006	< 0.010	< 0.020	< 0.05	4.2	1.90	2.10	4.90	1.20	57.00			
		09/01/85	6.6	4160	2050	0.36	0.002	0.006	0.050	< 0.020	0.12	0.001	5.0	1.10	6.70	7.80	0.20	36.00		
		09/14/85	6.7	3099	2250	0.36	0.001	0.009	0.050	0.110	0.06	0.001	3.0	1.50	6.10	5.60	0.40	35.00		
	Average 1985		6.7	3568	1670	0.36	0.005	0.001	0.012	0.040	0.090	0.001	3.6	1.30	4.40	5.70	0.40	37.00		
		01/11/86	6.9	3580	2900	0.31	< 0.001	0.009	< 0.010	< 0.020	< 0.05	< 0.001	2.1	1.90	3.70	5.60	0.90	31.00		
		06/24/86	6.9	3627	2500	0.20	0.002	0.007	< 0.010	< 0.020	< 0.05	< 0.001	2.0	1.70	1.70	3.40	1.70	26.00		
		07/13/86	7.0	4592	2800	0.30	< 0.001	0.009	0.030	0.030	< 0.05	< 0.001	1.6	1.10	6.60	1.70	1.30	75.00		
		10/20/86	6.8	5923	2370	0.16	0.001	0.009	0.030	0.030	< 0.05	< 0.001	1.6	1.10	6.60	1.70	1.30	75.00		
	Average 1986		6.9	4029	1940	0.15	< 0.002	0.016	0.060	0.070	< 0.05	< 0.001	3.2	1.30	3.20	5.70	2.30			
		01/18/90	6.5	2324	1993	0.20	< 0.01	< 0.001	0.010	< 0.035	< 0.05	< 0.001	2.2	1.50	1.98	3.48	1.15	33.58		
		05/03/90	6.9	4078	2070	0.20	0.01	0.015	< 0.010	0.030	< 0.05	0.001	1.7	1.60	1.50	2.90	0.40	2.60		
		08/24/90	6.8	3489	2130	0.05	< 0.001	0.014	0.050	0.050	< 0.05	< 0.001	5.2	1.30	1.60	2.90	0.20	2.60		
	Average 1990		6.5	4540	2293	0.05	< 0.001	0.014	0.050	0.050	< 0.05	< 0.001	3.4	1.35	1.55	2.90	0.50	2.60		
		01/10/91	7.0	4554	2427	0.21	0.01	< 0.001	0.014	< 0.030	0.040	< 0.05	< 0.001	3.4	1.35	1.55	2.90	0.50	2.60	
		04/21/91	6.7	4830	2421	0.05	< 0.001	0.010	< 0.030	< 0.050	< 0.050	< 0.001	4.3	2.70	1.40	4.10	< 0.20	0.60		
		07/19/91	6.6	4322	2231	0.05	< 0.001	0.010	< 0.030	< 0.050	< 0.050	< 0.001	1.3	1.80	< 1.00	< 2.80	< 0.20	1.80		
	Average 1991		6.7	4525	2543	0.29	0.02	< 0.001	0.010	< 0.030	< 0.050	< 0.001	2.8	2.25	< 1.20	< 3.45	< 0.20	1.20		
179	TDM XLV	08/22/88	7.5	1022	356	0.31	< 0.001*	0.002	0.010	< 0.020	< 0.05	< 0.001	3.2	0.80	2.20	3.00	1.40	0.60		
		09/06/88	9.0	1148	690	0.28	< 0.001	0.003	0.010	< 0.020	< 0.05	< 0.001	2.4	0.80	3.40	4.20	0.20	0.05		
		09/20/88	8.8	1169	424	0.40	0.005	0.010	< 0.010	< 0.020	< 0.05	< 0.001	2.4	1.00	2.70	3.70	0.20	0.50		
	Average 1988		8.7	976	85	0.37	< 0.002*	0.002	0.010	< 0.020	< 0.05	< 0.001	2.9	1.80	4.10	5.90	< 0.05	0.50		
		10/05/88	8.5	1079	465	0.34	< 0.001	0.003	< 0.010	< 0.020	< 0.05	< 0.001	2.7	1.10	3.10	4.20	0.50	< 0.50		

## ATTACHMENT 3B TSS MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TBS (S.G.)	SOC (mg/l)	Cl (mg/l)	Rn (mg/l)	MoS (mg/l)	An (mg/l)	Cd (mg/l)	Cr (mg/l)	Mn (mg/l)	Pb (mg/l)	Se (mg/l)	Gross Alpha (pCi/l)	Rn76 (pCi/l)	Rn228 (pCi/l)	Rn222 (pCi/l)	Uranium (pCi/l)	
172	TBH-XLV	01/10/89	8.1	1028	310	77	160	0.26	< 0.001	< 0.010	< 0.002	< 0.020	< 0.05	< 0.001	1.3	1.20	2.90	4.10	0.30	0.90
		04/27/89	8.3	1012	600	230	156	0.06	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.1	1.20	2.70	5.90	0.80	< 0.20
		07/17/89	8.2	1015	430	80	142	0.06	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.003	1.9	0.90	0.50	1.40	1.20	< 0.20
	Average 1989		8.2	1003	510	117	160	0.12	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	1.8	1.10	2.00	3.10	0.77	< 0.43
		01/17/90	7.9	652	458	115	159	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.3	1.00	1.40	2.40	0.20	0.70
		05/02/90	8.3	1036	520	85	157	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.4	1.60	1.60	2.20	0.20	< 0.20
		08/25/90	7.8	1002	470	80	167	< 0.01	< 0.001	< 0.006	< 0.010	< 0.020	< 0.05	< 0.007	1.8	0.80	1.50	2.30	0.20	< 0.20
	Average 1990		8.5	908	425	72	153	< 0.01	< 0.001	< 0.004	< 0.010	< 0.020	< 0.05	< 0.001	6.5	0.70	7.90	8.60	< 0.20	< 0.20
		01/11/91	7.5	1016	568	69.2	167	< 0.01	< 0.001	< 0.016	< 0.050	< 0.050	< 0.05	< 0.001	1.8	0.80	1.50	2.30	0.20	< 0.45
		04/18/91	7.8	1027	522	70.8	171	< 0.01	< 0.001	< 0.016	< 0.050	< 0.050	< 0.05	< 0.001	6.5	0.70	7.90	8.60	< 0.20	< 0.20
		07/19/91	7.5	1010	527	71.0	167	< 0.01	< 0.001	< 0.019	< 0.050	< 0.050	< 0.05	< 0.001	1.8	0.80	1.50	2.30	0.20	< 0.20
	Average 1991		8.5	1049	512	78.8	167	< 0.01	< 0.001	< 0.019	< 0.050	< 0.050	< 0.05	< 0.001	1.8	0.80	1.50	2.30	0.20	< 0.20
		10/10/91	7.8	1036	542	72.4	168	< 0.01	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	1.8	0.80	1.50	2.30	0.20	< 0.20
		12/8 KL-VII	08/22/88	7.6	769	27%	55	< 0.01	< 0.003	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	3.2	1.30	2.30	3.60	1.10	5.50
		09/06/88	8.7	692	280	55	< 0.01	0.003	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.9	1.20	1.90	3.10	0.20	5.00	
		09/20/88	8.6	738	292	49	< 0.01	0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.1	1.00	1.60	2.60	0.30	0.05	
	Average 1988		8.5	719	302	51	165	0.15	< 0.001	0.003	< 0.010	< 0.020	< 0.05	< 0.001	1.7	2.40	3.10	5.50	0.40	< 0.05
		01/11/89	8.4	730	285	52	145	< 0.04	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.001	2.0	3.48	2.73	3.68	0.50	< 2.65
		04/27/89	8.1	683	350	56	146	0.30	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.5	1.10	2.90	3.00	0.60	2.60
		07/14/89	7.8	642	440	70	151	0.06	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.1	1.70	2.50	4.20	0.70	0.30
		10/23/89	8.0	835	649	78	177	0.10	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.003	2.0	1.30	1.20	2.50	1.10	< 0.20
	Average 1989		8.0	778	418	106	156	< 0.14	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	1.5	1.40	2.20	3.60	0.80	< 1.05

## ATTACHMENT 3B TDSS MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS (mg/l)	SiO <sub>2</sub> (mg/l)	Cl (mg/l)	Na (mg/l)	NO <sub>3</sub> (mg/l)	As (mg/l)	Cd (mg/l)	Cr (mg/l)	Mn (mg/l)	Pb (mg/l)	Se (mg/l)	Grs Alk/Na (mg/l)	842276 (mg/l)	842276-226 (mg/l)	842276 (mg/l)	842276-226 (mg/l)	USAT (ppm)
181	TDSS REVIEW	01/17/90	7.6	809	460	115	172	< 0.61	< 0.001	0.003	< 0.010	< 0.020	< 0.05	0.001	1.1	0.90	1.60	2.50	0.20	25.00
		04/24/90	7.7	1072	500	95	237	< 0.01												
		07/22/90	7.7	1269	520	86	215	0.19	< 0.001	0.005	< 0.010	< 0.020	< 0.05	< 0.001	3.7	1.00	2.80	3.80	0.20	0.70
	Average 1990		7.7	1305	560	98	210	0.14												
	Average 1991		7.7	1113	498	98	210	< 0.09	< 0.001	0.004	< 0.010	< 0.020	< 0.05	< 0.001	2.6	0.95	2.20	3.15	0.20	71.90
	01/11/91	7.6	1364	770	89	216	0.02	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	2.3	2.00	< 1.00	< 3.00	< 0.20	< 0.20	
	04/18/91	7.5	1394	765	85.3	226	0.32													
	07/05/91	7.1	1459	881	90.9	235	0.02	< 0.001	< 0.010	< 0.050	< 0.020	< 0.05	< 0.001	< 1.0	0.90	< 1.00	< 1.00	< 0.20	1.80	
	Average 1991		8.1	1271	814	115	251	0.05												
	Average 1991		7.3	1422	803	95	230	0.03	< 0.001	< 0.010	< 0.050	< 0.035	< 0.05	< 0.001	< 1.7	1.45	< 1.00	< 2.45	< 0.20	< 1.00
183	TDSS REVIEW	08/22/88	8.2	880	310	72	0.00	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	3.3	1.20	2.00	3.20	0.40	4.50	
		09/06/88	8.6	890	390	70	0.39	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	1.6	0.70	2.00	2.70	0.30	5.50	
		09/20/88	8.5	965	400	71	0.48	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.5	1.00	2.40	3.40	0.30	4.10	
	10/05/88		8.1	84.3	500	75	159	0.27	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.6	2.10	4.00	6.10	0.20	0.87
	Average 1988		8.4	894	310	72	159	0.28	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	2.2	1.25	2.60	3.85	0.43	3.77
	21/18/89	8.0	1018	460	105	156	0.32	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.003	1.4	1.00	2.80	3.80	0.60	0.70	
	04/27/89	8.3	1060	670	1.0	171	0.27	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.9	1.00	1.90	2.90	0.90	< 0.20	
	07/17/89	8.9	1128	510	80	169	0.18	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002							
	Average 1989		8.4	1064	642	86	154	0.13												
	Average 1989		8.2	1068	570	97	179	0.22	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	2.2	1.00	2.35	3.35	0.75	< 0.45
	01/17/90	8.4	997	500	90	183	< 0.61	< 0.070	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.6	0.70	1.60	2.30	1.90	0.70	
	05/02/90	8.2	1202	620	75	173	< 0.01													
	06/24/90	7.9	1376	616	96	193	0.46	< 0.001	0.004	< 0.010	< 0.020	< 0.05	< 0.001	2.6	0.70	1.50	2.20	0.10	0.20	
	10/18/90	7.6	1410	625	90	175	0.13													
	Average 1990		8.0	1246	555	98	186	< 0.08	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.001	2.6	0.70	1.55	2.25	1.00	0.45

## ATTACHMENT 3B TOSS MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS (mg/l)	SDS (mg/l)	Cl (mg/l)	Kn (mg/l)	NO3 (mg/l)	As (mg/l)	Cd (mg/l)	Cr (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	U-235 (pCi/l)	U-238 (pCi/l)				
18.3	TDW 3C IX	01/11/91	7.3	1406	807	89.7	195	< 0.01	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 6.001	2.9	1.80	3.10	< 0.20	< 0.20	
		04/18/91	7.6	1405	734	85	218	0.03												
		07/19/91	7.4	1372	710	80.6	204	< 0.01	< 0.001	< 0.010	< 0.050	< 0.020	< 0.05	< 6.001	< 1.0	0.60	< 1.00	< 1.60	< 0.20	1.80
		10/10/91	7.6	1398	756	89.4	190	< 0.01												
	Average 1991		7.4	1396	759	85.9	202	< 0.02	< 0.001	< 0.010	< 0.050	< 0.035	< 0.05	< 6.001	< 2.0	1.20	< 1.15	< 2.35	< 0.20	< 1.00

## ATTACHMENT % TOSS BACKGROUND MONITOR WELLS

WELL NUMBER	WELL NAME	DATE	pH (5 U.)	TDS (mg/L)	Cl (mg/L)	Ka (mg/L)	No3 (mg/L)	As (mg/L)	Cd (mg/L)	Er (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Cr6 Alpha (pci/L)	Ra226 (pci/L)	Ra228 (pci/L)	Ra228+228 (pci/L)	Ra230 (pci/L)	URAT (pci/L)	
172	SN	07/07/85	8.1	975	446	12	< 0.001	< 0.002	< 0.010	< 0.05	< 0.05	< 0.05	< 0.05	0.60	0.60	0.60	0.60	0.60	1.70	
		05/31/88	7.3	975	600	15	< 0.001	< 0.002	< 0.010	< 0.05	< 0.05	< 0.05	< 0.05	0.80	0.80	0.80	0.80	0.80	3.40	
		06/25/85	7.5	963	410	19	< 0.001	< 0.002	< 0.010	< 0.05	< 0.05	< 0.05	< 0.05	0.60	0.60	0.60	0.60	0.60	0.10	
		09/19/88	8.1	1014	400	13	177	0.55	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.001	1.20	2.90	4.10	1.30	10.00	
		10/26/88	8.0	975	532	12	178	0.69	< 0.001	< 0.005	< 0.010	< 0.020	< 0.05	0.002	2.4	2.90	4.10	0.70	9.60	
		11/09/88	7.9	985	540	13	182	1.02	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.013	2.8	0.60	2.80	3.40	1.30	
		11/23/88	7.7	1025	555	17	184	0.05	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.001	2.0	0.90	2.70	3.60	1.40	
		11/26/88	7.8	1063	600	27	186	0.001	< 0.001	< 0.010	< 0.010	< 0.05	0.001	1.20	0.50	0.50	2.40	2.40		
Average	1988		7.9	992	492	16	181	.58	< 0.001	< 0.004	< 0.010	< 0.020	< 0.05	0.011	2.6	0.90	2.80	0.90	2.00	
		03/27/89	8.0	956	510	33	195	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.1	0.60	1.50	2.40	0.80	
		06/12/89	7.9	927	540	30	229	0.20	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.004	0.5	1.30	0.80	1.90	0.40	
		09/19/89	7.9	968	560	42	181	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	5.5	0.50	0.60	1.30	2.10	
		12/20/89	7.7	1006	500	96	199	0.31	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	5.5	0.50	0.60	1.30	2.60	
Ave: 89	1989		7.9	963	528	50	201	< 0.16	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	2.6	0.83	1.05	1.86	1.65	
		03/26/90	7.7	928	600	20	205	1.22	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	3.8	1.60	1.50	3.50	1.10	
		06/26/90	8.0	927	468	17	191	0.49	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.004	0.5	1.30	0.80	1.90	0.40	
		09/07/90	8.3	1019	420	14	185	0.98	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	5.5	0.50	0.60	1.30	2.10	
		12/01/90	7.5	987	455	11	290	0.14	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	3.7	1.20	1.75	2.95	0.80	
Average	1990		7.9	990	466	16	198	0.71	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	3.6	0.80	2.00	2.80	0.50	
		03/02/91	7.7	1019	575	8.7	180	0.06	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 1.00	< 1.00	< 1.20	< 0.20	
		06/10/91	7.8	970	572	6.8	187	0.06	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 1.00	< 1.00	< 1.60	< 0.20	
		09/08/91	7.8	1033	591	3.7	196	1.20	0.020	< 0.010	< 0.050	< 0.050	< 0.05	< 0.074	< 1.0	< 1.00	< 1.00	< 1.20	< 0.20	
		12/12/91	8.1	1019	575	7.8	184	0.05	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 1.00	< 1.00	< 1.20	< 0.20	
Average	1991		7.8	996	575	7.8	184	0.05	< 0.001	< 0.010	< 0.050	< 0.050	< 0.05	< 0.001	< 1.0	< 1.00	< 1.00	< 1.20	< 0.20	
177	SN - EM-5	07/29/88	7.8	719	186	16	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.05	< 0.001	5.20					21.00	
		11/26/88	7.8	456	270	19	106	0.10	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	4.75					9.70
Average	1988		7.8	588	226	18	106	0.10	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	4.75					10.85
		04/26/89	7.8	418	248	30	103	0.11	< 0.001	0.003	< 0.010	< 0.020	< 0.05	< 0.002	2.0	1.50	2.30	3.30	1.70	
		06/12/89	7.8	485	220	34	132	0.20	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.004	3.0	1.70	2.10	1.60	0.40	
		09/26/89	7.7	450	228	40	97	< 0.16	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.002	3.1	1.50	2.50	2.80	1.40	
		12/20/89	7.7	527	205	15	125	0.13	< 0.14	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	0.95	2.7	1.53	0.95	2.46	
Average	1989		7.7	495	225	30	114	< 0.14	< 0.001	< 0.003	< 0.010	< 0.020	< 0.05	< 0.003	2.7	1.53	0.95	2.46	1.10	1.34

## ATTACHMENT 3C: TDSS BACKGROUND MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS (mg/L)	SOC (mg/L)	Cl (mg/L)	Na (mg/L)	NO3 (mg/L)	As (mg/L)	Cd (mg/L)	Cr (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Ura-Alpha (pCi/L)	Ra226 (pCi/L)	Ra228 (pCi/L)	Ra228+228 (pCi/L)	Th230 (pCi/L)
			(3.0-3)																
172	SN - EM-5	04/23/90	7.4	530	302	14	112	0.26	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.001	2.3	2.20	3.10	5.30	0.50
		06/26/90	7.8	505	340	13	115	0.57											3.10
		09/01/90	7.9	520	308	20	115	0.94	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.002	3.2	1.90	2.10	4.00	0.20
	Average	1990	7.7	553	254	16	122	0.25											0.50
			574	301	16	116	0.50	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.002	2.8	2.05	2.60	4.65	0.35	
		03/02/91	7.5	576	310	10.4	116	0.01	< 0.001	< 0.01	< 0.050	< 0.075	< 0.05	< 0.001	3.0	3.00	< 1.00	< 4.00	< 0.20
		06/19/91	7.4	531	273	8.6	115	0.02	< 0.001	< 0.01	< 0.050	< 0.02	< 0.05	< 0.001	1.1	1.40	< 1.00	< 2.40	< 0.20
		09/08/91	7.7	565	301	4.8	116	1.20	0.014	< 0.01	< 0.050	< 0.02	< 0.05	0.034	< 1.0	< 0.20	< 1.30	< 0.20	2.00
	Average	1991	6.0	553	292	9.5	115	0.62	< 0.001	< 0.01	< 0.050	< 0.04	< 0.05	< 0.001	2.0	2.20	< 1.00	< 3.20	< 0.20
																		< 0.20	
174	TOXIC	08/17/90	10.8	292	66	5	0.05	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.001	3.0	0.80	1.90	2.70	0.90	
		09/01/90	9.4	326	196	10	0.49	0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.161	0.9	0.80	1.70	2.00	0.30	
		09/14/90	9.8	327	170	10	0.22	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.0	1.20	1.50	2.20	0.50	
		09/26/90	9.2	312	56	6	75	0.20	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.5	0.70	3.40	4.10	0.50
	Average	1990	9.7	314	94	8	74	0.24	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.041	1.6	0.80	2.00	2.80	0.55
																		1.60	
		02/27/90	8.5	360	96	16	93	0.10	0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.005	1.7	1.40	1.70	3.10	0.40
		06/26/90	8.1	292	134	30	71	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.9	1.00	1.50	2.50	< 0.20
		07/18/90	7.9	291	95	18	67	0.03	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.006	1.5	0.50	0.60	1.10	0.60
		10/20/90	8.5	301	110	13	80	0.08										0.20	
	Average	1990	8.2	306	107	19	78	< 0.06	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.004	2.6	0.97	1.27	2.25	0.63
																		< 0.20	
		01/22/90	7.9	298	68	26	74	0.04	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.001	1.4	1.20	1.60	2.80	0.20
		04/23/90	8.0	320	65	12	74	< 0.01	0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.7	0.70	1.80	2.50	0.20
		08/26/90	8.2	294	119	12	72	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.6	0.95	1.70	2.65	0.20
		10/23/90	8.2	316	85	12	75	< 0.02	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.0	0.20	< 1.20	< 0.20	< 0.20
	Average	1990	8.1	307	87	16	75	< 0.02	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.7	0.70	1.80	2.50	0.20
																		0.95	
		01/13/91	7.3	287	126	5.6	82.4	< 0.01	< 0.001	< 0.001	< 0.002	< 0.025	< 0.125	< 0.001	2.6	0.95	1.70	2.65	0.20
		04/28/91	7.8	249	104	5.5	68.8	< 0.01	< 0.001	< 0.001	< 0.002	< 0.050	< 0.050	< 0.001	1.0	0.20	< 1.20	< 0.20	< 0.20
		07/19/91	8.0	297	710	6.3	73.5	< 0.01	< 0.001	< 0.001	< 0.010	< 0.050	< 0.050	< 0.001	1.0	0.70	< 1.00	< 1.70	< 0.20
		10/14/91	8.1	312	102	7.6	78.0	< 0.01	< 0.001	< 0.001	< 0.010	< 0.050	< 0.050	< 0.001	1.0	0.45	< 1.00	< 1.45	< 0.20
	Average	1991	7.8	278	113	5.8	80.2	< 0.01	< 0.001	< 0.001	< 0.010	< 0.050	< 0.050	< 0.001	< 1.0	0.45	< 1.00	< 1.45	< 0.20
																		1.00	

ATTACHMENT 3C: TSS BACKGROUND MONITORING WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	TSS												BOD												TSS/200			
			pH (5-11)	TDS (mg/l)	S04 (mg/l)	Cl (mg/l)	No (mg/l)	NO3 (mg/l)	As (mg/l)	Cd (mg/l)	Cr (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Gra. Alpine E9C1/13	Ba226 (pcf/13)	Ba228 (pcf/13)	Ba226-228 (pcf/13)												
182	TDS-XL-V111	08/22/90	9.7	373	240	9	0.39	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	2.2	1.10	3.60	0.90	0.05	2.50	1.10	3.60	0.90	0.05	2.40	1.10	3.60	0.90	0.05		
	(89/06/88)	9.9	385	182	10	0.38	0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.003	0.9	0.90	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50		
	(89/12/88)	9.6	403	104	11	0.26	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	0.6	1.10	1.80	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90		
	(89/14/88)	9.6	372	150	15	194	0.05	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.0	1.80	2.10	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	
Average	1988	9.7	385	159	11	134	0.25	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.4	1.23	1.98	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
	01/18/89	9.5	341	162	16	106	0.43	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.70	1.30	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
	04/27/89	9.2	337	195	16	108	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.30	2.10	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	
	07/14/89	8.9	359	165	18	190	0.04	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.90	1.20	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	
	10/23/89	9.5	351	182	12	117	0.07	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.90	1.20	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	
Average	1989	9.2	345	176	14	108	< 0.39	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.8	0.73	1.43	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17
	01/15/90	8.9	351	149	32	107	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.6	0.60	1.60	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
	06/24/90	8.6	324	100	43	119	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.6	0.30	2.10	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
	08/23/90	8.6	382	135	25	110	0.22	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.6	0.60	1.70	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	
	10/18/90	8.6	381	157	31	107	0.18	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.6	0.60	1.70	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	
Average	1990	8.7	356	135	23	113	< 0.10	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.4	0.50	1.65	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
	01/11/91	7.7	392	209	4.0	126	< 0.01	< 0.001	< 0.010	< 0.020	< 0.05	< 0.001	1.0	< 1.0	< 1.00	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	< 1.20	
	04/18/91	8.1	352	188	5.6	116	0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.90	1.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	07/03/91	7.5	358	197	6.8	114	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.90	1.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
	10/10/91	8.1	354	197	4.1	109	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	0.9	0.90	1.20	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Average	1991	7.8	377	198	5.0	119	< 0.01	< 0.001	< 0.002	< 0.010	< 0.020	< 0.05	< 0.001	1.5	< 1.5	< 1.50	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85

## ATTACHMENT 30 ONE SANDS MONITOR WELL

WELL NUMBER	WELL NAME	DATE	pH	TSS (mg/L)	SCG (mg/L)	CL (mg/L)	NO <sub>2</sub> (mg/L)	NO <sub>3</sub> (mg/L)	Cr (mg/L)	HI (mg/L)	Pb (mg/L)	Se (mg/L)	Uranium Alpha (pCi/L)	Uranium Beta (pCi/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Radium 228 (pCi/L)	Radium 228 (pCi/L)	URANIUM	
116	TOH K1	01/27/84	7.5	562	233	34	< 0.001	< 0.001	< 0.001	< 0.001	1.00	< 0.001	1.40	< 0.10	1.40	< 0.10	1.40	< 0.10		
		04/28/88	7.4	571	260	36	< 0.001	< 0.001	< 0.001	< 0.001	0.80	0.006	1.50	1.50	1.50	3.40	1.50	3.40		
		07/15/88	7.4	544	208	29	< 0.001	< 0.001	< 0.001	< 0.001	0.80	0.014	2.80	0.80	0.80	0.80	0.80	0.80		
		10/26/88	7.7	460	254	29	< 0.001	< 0.001	< 0.001	< 0.001	1.10	< 0.001	2.20	0.60	0.60	1.70	0.60	1.70		
Average 1988		7.5	534	234	32	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.93	0.006	1.83	1.08	1.08	1.08	1.08	1.08		
		01/26/89	7.6	469	268	31	< 0.001	< 0.001	< 0.002	< 0.013	< 0.02	< 0.001	1.10	2.40	1.30	0.60	0.60	0.60		
		04/25/89	7.5	522	2510	50	63	0.15	0.001	< 0.002	< 0.013	< 0.02	< 0.05	4.7	2.40	3.70	0.50	0.50		
		05/27/89	7.6	687	308	170	82	0.15	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	3.90	1.30	3.70	0.50	0.50		
		08/23/89	7.6	560	220	40	75	0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	7.9	1.50	1.50	1.50	1.50		
		10/19/89	7.6	689	238	42	72	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	3.5	0.90	2.00	0.50	0.50		
Average 1989		7.8	528	864	75	77	9.12	< 0.001	< 0.002	< 0.010	< 0.02	0.43	< 0.003	6.3	1.67	1.30	3.70	0.80	1.93	
		01/19/90	7.4	866	260	44	77	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	2.6	1.20	2.60	3.80	1.30	8.80	
		05/01/90	7.8	596	290	85	67	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	3.5	0.90	2.00	1.50	1.50	2.00	
		08/23/90	7.6	560	220	40	75	0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	3.5	0.90	2.00	1.50	1.50	2.00	
		10/19/90	7.6	689	238	42	72	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	3.5	0.90	2.00	1.50	1.50	2.00	
Average 1990		7.6	63	252	56	76	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	< 0.003	5.1	1.05	7.30	3.25	0.80	5.00	
		01/11/91	6.9	671	359	37.6	77.6	0.02	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	2.6	1.40	1.90	3.50	0.80	3.70	
		04/18/91	7.6	652	313	35.1	65.6	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	2.6	1.40	1.90	3.50	0.80	3.70	
		07/04/91	7.3	658	327	34.2	69.0	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	2.6	1.40	1.90	3.50	0.80	3.70	
		10/15/91	6.2	664	313	46.3	80.6	0.25	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	2.6	1.40	1.90	3.50	0.80	3.70	
Average 1991		7.0	603	329	38.3	73.2	< 0.01	< 0.001	< 0.002	< 0.010	< 0.02	< 0.05	< 0.003	< 1.8	1.20	1.60	2.80	< 0.40	6.85	
		128	TOH K1X	02/29/88	11.1	424	42	13	< 0.001	< 0.001	< 0.001	< 0.001	0.90	< 0.001	5.50	0.70	0.70	0.70	0.70	
		05/10/88	12.1	373	54	10	< 0.001	< 0.001	< 0.001	< 0.001	1.20	< 0.001	1.50	0.70	0.70	0.70	0.70	0.70		
		08/31/88	12.3	401	59	75	0.01	< 0.001	< 0.001	< 0.001	< 0.001	0.90	< 0.001	1.40	0.70	0.70	0.70	0.70	0.70	
		12/05/88	11.9	383	60	18	< 0.001	< 0.001	< 0.001	< 0.001	0.90	< 0.001	0.70	0.70	0.70	0.70	0.70	0.70		
Average 1988		11.9	373	54	29	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.98	< 0.001	2.28	0.68	0.68	0.68	0.68	0.68	
		02/24/89	11.5	589	166	82	159	0.11	0.001	< 0.002	< 0.01	< 0.02	1.50	< 0.002	1.5	1.90	1.80	3.70	0.60	1.50
		05/22/89	11.6	583	64	70	147	0.53	0.002	< 0.002	< 0.01	< 0.02	< 0.05	< 0.003	1.5	1.90	1.80	3.70	0.60	1.50
		07/18/89	11.2	290	36	71	25	0.10	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	1.50	1.60	1.80	2.80	0.60	1.50	
		10/23/89	11.6	313	67	55	136	0.05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	1.50	1.60	1.80	2.80	0.60	1.50	
Average 1989		11.5	523	83	70	112	0.19	< 0.002	< 0.002	< 0.01	< 0.02	< 0.05	< 0.004	1.6	1.10	1.60	3.15	0.50	1.17	
		01/22/90	11.5	335	75	59	169	< 0.01	< 0.001	< 0.001	< 0.01	< 0.02	< 0.05	1.7	1.00	1.50	2.50	0.60	2.20	
		05/01/90	11.6	268	78	110	198	< 0.01	< 0.001	< 0.001	< 0.01	< 0.02	< 0.05	2.1	1.30	1.60	2.80	< 0.2	2.20	
		08/28/90	11.0	362	68	68	124	0.05	< 0.001	< 0.001	< 0.002	< 0.01	< 0.02	< 0.05	2.1	1.30	1.60	2.80	< 0.2	2.20
		10/18/90	11.2	420	70	67	117	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	1.9	0.75	1.40	3.12	< 0.40	1.2	
Average 1990		11.3	346	71	76	112	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	1.9	0.75	1.40	3.12	< 0.40	1.2	

## ATTACHMENT 3a ORE SAND MONITOR WELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	CH (5.5)	TDS (mg/L)	SiO <sub>2</sub> (mg/L)	Na (mg/L)	NO <sub>3</sub> (mg/L)	Pb (mg/L)	Cr (mg/L)	Ed (mg/L)	Se (mg/L)	Sr (ppm)	Ba226 (pCi/L)	Ba228 (pCi/L)	Th228 (pCi/L)	URAT (pCi/L)		
128	TOM XATX	07/10/91	11.5	593	120	61.2	136	0.05	< 0.001	< 0.05	< 0.001	< 1.0	< 0.2	< 1.00	< 1.20	< 0.20	3.7	
		04/18/91	10.8	356	119	57.0	110	0.01	< 0.001	< 0.010	< 0.001	< 1.0	< 0.2	< 1.00	< 1.20	< 0.20		
		07/12/91	11.0	587	942	53.0	128	< 0.01	< 0.001	< 0.010	< 0.001	< 1.0	< 0.3	2.70	3.00	< 0.20	1.8	
	Average	1991	11.0	57.2	1040	66.4	118	0.08	< 0.001	< 0.010	< 0.001	< 1.0	< 0.3	< 1.05	< 2.30	< 0.20	2.8	
129	TOM XXX	02/29/88	7.2	2594	1500	142	181	< 0.001	< 0.001	< 0.001	< 0.001	0.90	0.90	0.20	0.0	0.20	0.0	
		08/11/88	7.2	2064	1350	130	177	< 0.001	< 0.001	< 0.001	< 0.001	2.60	2.60	0.50	1.2			
		08/30/88	7.2	2057	850	145	130	< 0.001	< 0.001	< 0.001	< 0.001	2.40	2.40	0.90	1.30			
		11/25/88	7.4	1900	177	140	156	< 0.001	< 0.001	< 0.001	< 0.001	1.00	1.00	0.50	1.20			
	Average	1988	7.2	2215	1400	142	177	< 0.001	< 0.001	< 0.001	< 0.001	1.20	< 0.002	1.72	0.52	0.88		
		02/22/89	7.4	2321	1150	255	181	0.46	< 0.001	< 0.001	< 0.001	< 0.15	0.006	2.9	1.60	2.60	3.60	
		05/22/89	11.6	1915	1200	155	177	0.11	< 0.001	< 0.001	< 0.001	< 0.05	< 0.001	2.4	0.60	1.70	2.50	
		07/17/89	7.4	1563	860	140	150	< 0.001	< 0.001	< 0.001	< 0.001	1.7	0.60	0.60	1.40	0.50	0.20	
		10/19/89	7.6	2191	1260	165	137	< 0.01	< 0.001	< 0.001	< 0.001	0.90	0.90	0.50	1.20			
	Average	1989	8.6	1598	1110	179	156	< 0.16	< 0.001	< 0.001	< 0.001	< 0.05	< 0.004	2.3	1.10	2.70	0.47	< 0.20
		01/16/90	7.3	1394	1070	150	131	< 0.01	< 0.001	< 0.001	< 0.001	2.1	0.70	1.70	1.50	< 0.20		
		04/24/90	7.7	1944	850	195	157	0.12	< 0.001	< 0.001	< 0.001	< 0.05	0.006	4.0	1.00	2.10	3.10	< 0.20
		08/26/90	8.8	1627	560	124	137	0.12	< 0.001	< 0.001	< 0.001	< 0.05	0.006	3.0	0.85	1.90	2.80	< 0.20
		10/18/90	9.4	1386	656	108	163	1	< 0.001	< 0.001	< 0.001	< 0.05	0.004	3.0	0.85	1.90	2.80	< 0.20
	Ave. Age	1990	8.3	1490	1302	144	142	< 0.01	< 0.001	< 0.001	< 0.001	< 0.05	< 0.004	2.1	0.70	2.70	0.47	< 0.20
		01/11/91	8.1	2338	1443	161	163	< 0.01	< 0.001	< 0.001	< 0.001	< 0.05	< 0.004	2.3	1.10	2.70	0.47	< 0.20
		04/18/91	8.1	1551	660	113	146	0.04	< 0.001	< 0.001	< 0.001	< 0.05	0.006	4.0	1.00	2.10	3.10	< 0.10
		07/01/91	10.4	1626	903	97.6	154	1	< 0.001	< 0.001	< 0.001	< 0.05	0.004	3.0	0.85	1.90	2.80	< 0.20
		10/15/91	7.5	2045	1265	153	168	0.39	< 0.001	< 0.001	< 0.001	< 0.05	0.005	4.0	1.00	2.10	3.10	< 0.20
	Average	1991	8.6	1913	1063	131	155	0.47	< 0.001	< 0.001	< 0.001	< 0.05	0.074	1.0	0.40	1.20	1.60	< 0.20
148	TOM XATX	01/27/88	7.0	3509	1570	267	312	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.038	< 1.0	< 0.30	< 1.10	< 1.40	< 0.20
		04/22/88	7.0	3063	2119	290	315	< 0.001	< 0.001	< 0.001	< 0.001	1.00	0.90	0.50	0.60	0.60	0.60	
		07/20/88	6.9	3883	1480	200	305	< 0.001	< 0.001	< 0.001	< 0.001	1.10	0.90	0.50	1.4	1.50	0.60	
		11/19/88	7.0	3256	2100	290	312	< 0.001	< 0.001	< 0.001	< 0.001	1.00	0.90	0.50	1.20	1.25	0.60	
	Average	1988	7.0	3848	1813	312	312	< 0.001	< 0.001	< 0.001	< 0.001	0.98	< 0.036	0.70	1.12	0.97	0.60	
		02/24/89	7.5	2648	7340	312	289	0.47	< 0.001	< 0.001	< 0.001	< 0.05	0.120	1.0	1.60	2.40	4.00	6.00
		05/11/89	7.4	5499	2180	310	319	0.32	< 0.001	< 0.001	< 0.001	< 0.05	0.001	1.2	0.50	1.30	1.90	5.70
		08/29/89	7.2	5422	1770	280	271	0.55	< 0.001	< 0.001	< 0.001	< 0.05	0.001	2.0	0.80	1.40	2.20	9.90
		11/20/89	7.1	3528	1710	295	299	0.03	< 0.002	< 0.002	< 0.002	< 0.05	0.001	1.10	0.90	1.30	1.70	10.50
	Average	1989	7.3	3506	1754	274	286	0.29	< 0.002	< 0.002	< 0.002	< 0.05	< 0.043	1.7	1.00	1.70	2.70	6.47
																	75.70	

WELL NUMBER	WELL NAME	DATE	pH (S.U.)	TDS (mg/l)	SO <sub>4</sub> (mg/l)	Cl (mg/l)	Sr (mg/l)	ATTACHMENT 3D			SANDS MONITOR WELLS CONTINUED								
								As (mg/l)	Cd (mg/l)	Cu (mg/l)	Ni (mg/l)	Pb (mg/l)	Sn (mg/l)	U ( <sup>238</sup> U)					
348	TOM RONX11	02/05/90	7.0	2655	1660	290	< 0.01	< 0.001	0.008	< 0.010	< 0.02	< 0.05	< 0.001	1.3	0.80	0.90	1.70	0.70	71.00
	05/03/90	7.4	3518	1725	310	168	< 0.01	0.01	0.008	< 0.010	< 0.02	< 0.05	< 0.001	1.3	0.80	0.90	1.70	0.70	71.00
	08/27/90	7.6	3604	1490	268	255	0.90	0.002	0.016	< 0.010	< 0.02	< 0.05	0.007	3.90	1.60	2.50	0.20	63.00	
	Average 1990	7.4	3606	1535	283	246	< 0.26	< 0.002	0.059	< 0.010	< 0.02	< 0.05	< 0.004	4.	0.85	1.27	2.10	0.45	67.00
	02/05/91	7.5	3936	1871	274	750	0.71	0.021	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 1.20	< 0.20	110.00
	05/25/91	7.0	5633	1935	296	225	0.29	0.001	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 1.20	< 0.20	114.00
	08/04/91	7.3	4076	1957	275	197	0.35	< 0.001	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 1.20	< 0.20	114.00
	11/18/91	7.1	3965	2024	320	375	0.20	0.001	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 1.20	< 0.20	114.00
	Average 1991	7.2	3993	1942	292	223	0.21	0.001	< 0.010	< 0.050	< 0.05	< 0.05	< 0.001	< 1.0	< 0.20	< 1.00	< 1.20	< 0.20	117.70



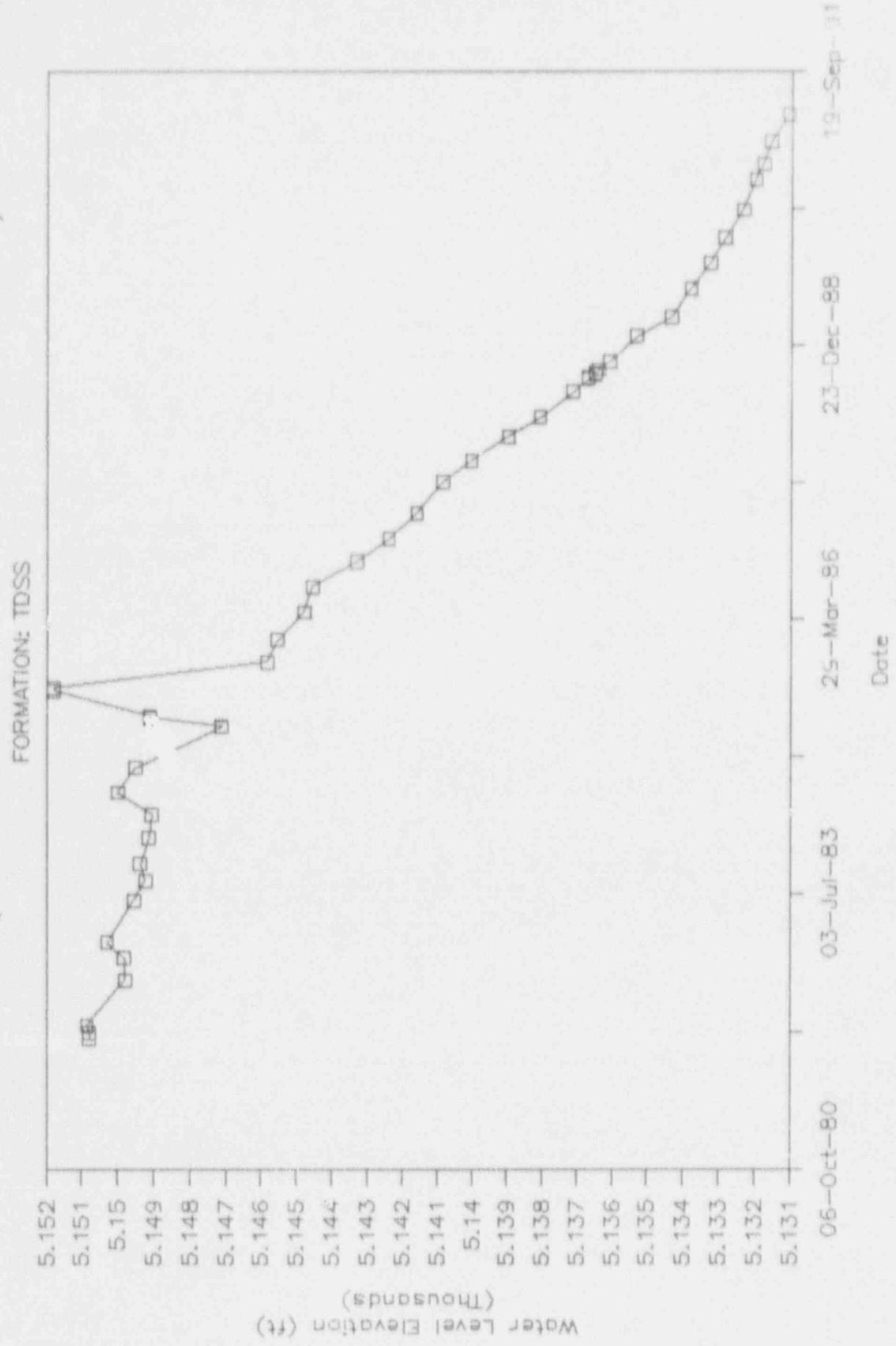
## ATTACHMENT TO MINE ROCKETS

MONITOR CELLS CONTINUED

WELL NUMBER	WELL NAME	DATE	pH	TDS	SALT	Cl	Na	Mg	K	Ca	Cr	Al	Pb	Se	Ura Sulfide	Ura Sulfite	Ura2Sb	Ura2Sb2Sb	Ura2Sb2	Ura2Sb2S	Ura2Sb2Sb2Sb	Ura2Sb2Sb2S
			(mp/1.3)	(mp/1.3)	(mp/1.3)	(mp/1.3)	(mp/1.3)	(mp/1.3)	(mp/1.3)													
175	300038	01/13/91	6.9	626	319	86.3	86.3	86.2	< 0.01	< 0.001	< 0.01	< 0.050	< 0.050	< 0.05	< 0.001	< 0.001	3.5	3.90	2.43	6.30	0.30	452.00
	04/21/91	7.1	627	323	86.3	67.8	67.8	< 0.01	< 0.001	< 0.01	< 0.050	< 0.050	< 0.05	< 0.001	< 0.001	76.4	2.90	8.10	10.70	0.60	620.00	
	07/19/91	7.3	628	312	84.7	78.2	78.2	< 0.04	0.001	< 0.01	< 0.050	< 0.050	< 0.05	< 0.001	< 0.001	90.4	5.20	5.20	8.70	0.50	528.00	
	10/14/91	8.3	635	315	77.3	86.0	86.0	< 0.020	< 0.001	< 0.01	< 0.050	< 0.050	< 0.05	< 0.001	< 0.001	7.5	0.50	1.50	< 0.20	< 0.20	7.80	
Average	1991	7.5	619	318	85.8	65.8	77.8	< 0.020	< 0.001	< 0.01	< 0.050	< 0.050	< 0.05	< 0.001	< 0.001	7.1	0.70	< 0.5	< 1.70	< 0.20	5.65	
180	3106-KC1	08/23/90	7.3	2712	979	175	825	< 0.05	< 0.001	< 0.002	< 0.050	< 0.050	< 0.050	< 0.001	< 0.001	3.5	3.90	2.43	6.30	0.30	452.00	
	09/07/90	7.1	2298	1290	180	109	109	0.09	< 0.001	0.002	0.050	< 0.050	< 0.050	< 0.001	< 0.001	76.4	2.90	8.10	10.70	0.60	620.00	
	09/21/90	6.9	2717	16.10	262	6.11	6.11	0.002	0.002	0.002	0.050	< 0.050	< 0.050	< 0.001	< 0.001	90.4	5.20	5.20	8.70	0.50	528.00	
	10/05/90	7.4	3288	2128	185	179	0.01	< 0.001	0.002	0.002	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.5	3.60	7.60	10.70	1.70	575.00	
Average	1980	7.2	2278	3127	190	175	0.12	< 0.002	< 0.005	< 0.005	< 0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	2.75	5.80	8.50	0.20	500.00	
	01/12/90	7.6	2189	1100	173	162	0.14	0.001	< 0.002	< 0.002	< 0.050	< 0.050	< 0.050	< 0.001	< 0.001	70.8	5.90	10.90	21.40	5.20	528.00	
	04/25/90	7.6	1797	5400	175	150	< 0.01	< 0.001	< 0.002	< 0.002	< 0.050	< 0.050	< 0.050	< 0.001	< 0.001	4.3	5.20	2.90	6.10	4.00	146.00	
	08/29/90	6.8	2607	1320	215	192	0.05	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	6.1	5.50	7.20	8.80	300.00		
	10/20/90	6.9	2299	3380	215	190	0.05	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	2.75	5.80	8.50	0.20	500.00	
Average	1980	7.1	2246	1300	194	175	< 0.14	< 0.001	< 0.005	< 0.005	< 0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.3	5.90	10.90	21.40	5.20	528.00	
	01/16/90	7.1	7696	1100	175	162	< 0.01	< 0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	5.20	2.90	6.10	4.00	146.00	
	04/25/90	6.9	2400	1160	255	260	< 0.01	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	5.20	2.90	6.10	4.00	146.00	
	09/23/90	7.9	2327	920	179	0.03	0.001	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	5.20	2.90	6.10	4.00	146.00	
	10/19/90	7.1	2311	3110	158	177	0.20	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	6.2	4.00	2.30	1.20	0.40	430.00	
Average	1990	7.0	2161	1612	197	162	< 0.08	< 0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	5.20	2.90	6.10	4.00	146.00	
	01/13/91	7.3	3254	1766	275	233	0.09	< 0.001	< 0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	15.4	31.20	< 1.00	< 12.20	< 0.20	370.20	
	04/18/91	6.7	3466	970	236	236	0.13	0.001	0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	6.30	< 1.00	< 1.70	< 0.20	370.20	
	07/10/91	6.6	2273	1473	223	223	0.06	< 0.001	< 0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	6.30	< 1.00	< 1.70	< 0.20	370.20	
	10/14/91	6.6	3181	2053	270	270	< 0.02	< 0.001	< 0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	6.30	< 1.00	< 1.70	< 0.20	370.20	
Average	1991	6.9	3231	1669	231	231	< 0.08	< 0.001	< 0.001	0.001	0.050	< 0.050	< 0.050	< 0.001	< 0.001	7.0	6.30	< 1.00	< 1.70	< 0.20	430.00	

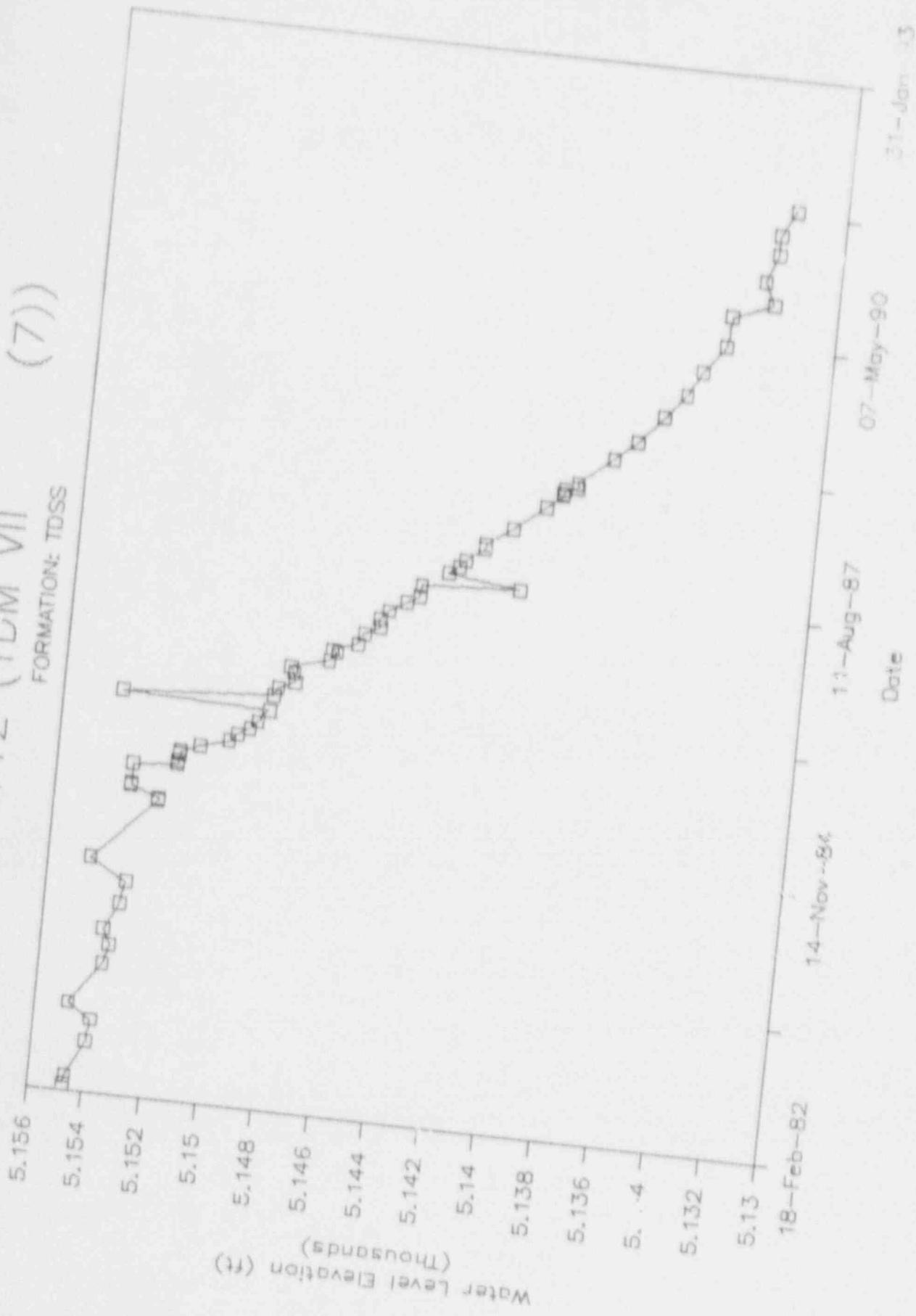


ID: 015 (TDM WELL D, REPL. SECT. 22)



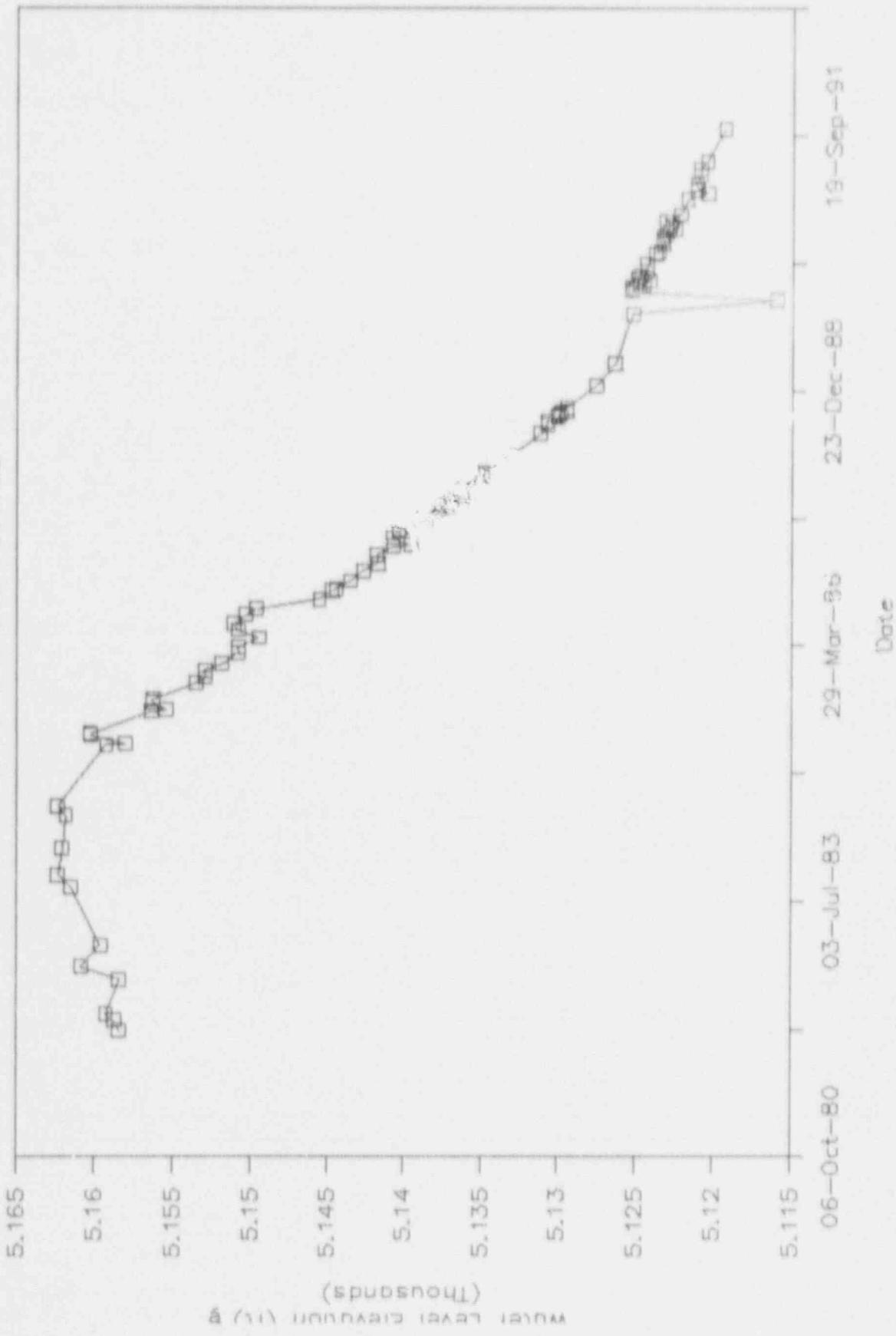
ID: 112 (TDM VII  
(7))

FORMATION: TDSS



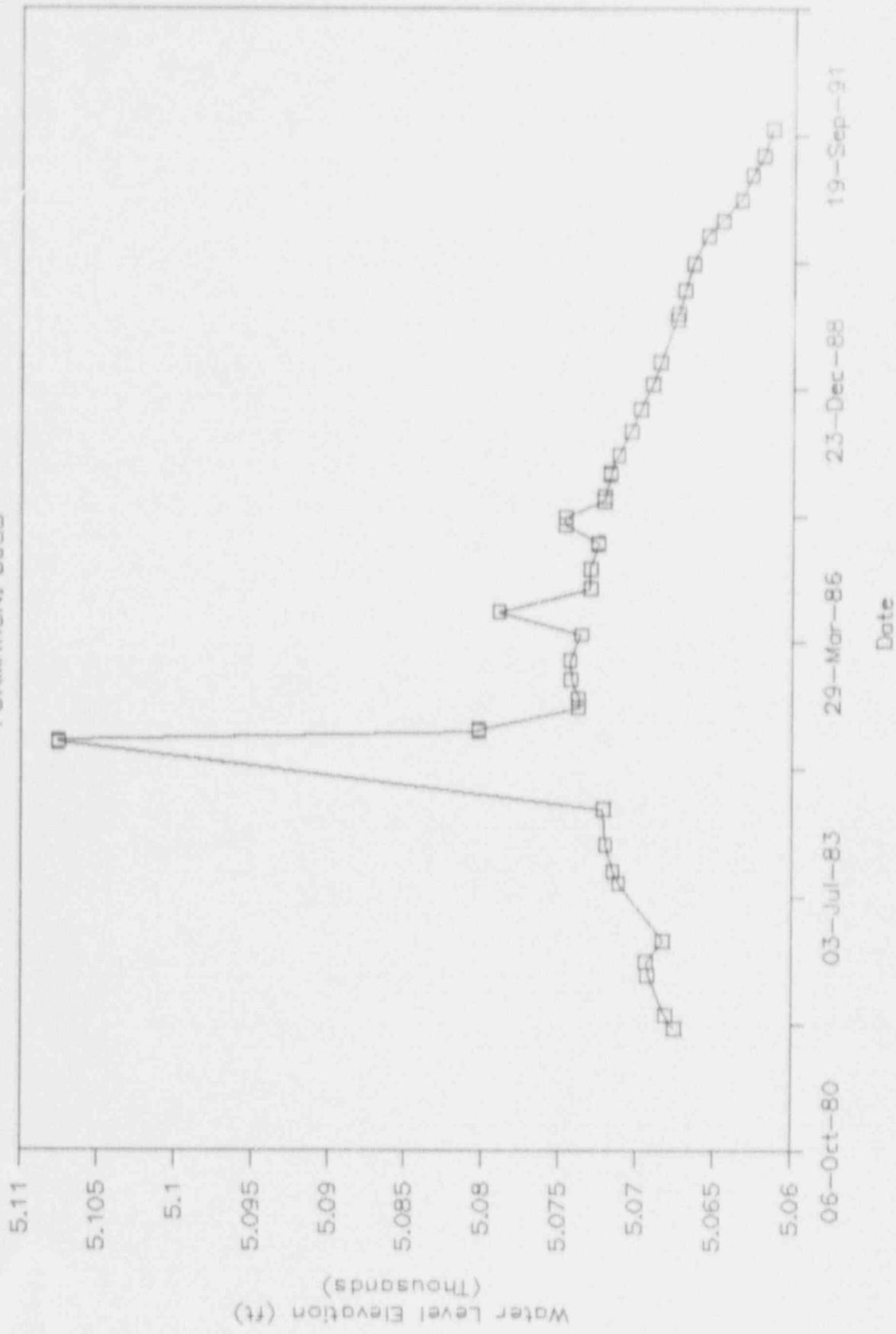
ID: 114 (TDM IX  
(9))

FORMATION: TDSS-TDSHALE



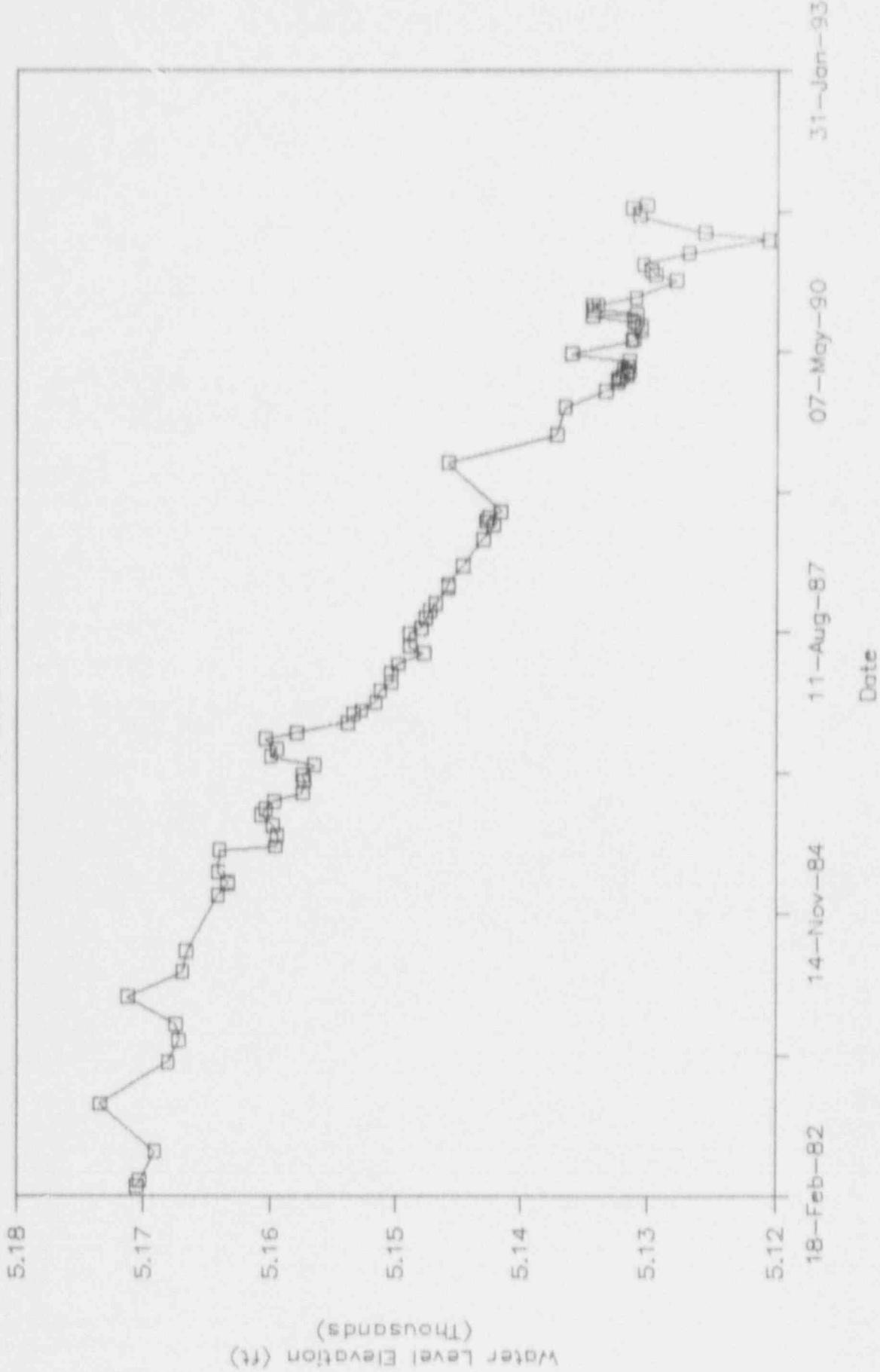
ID: 1116 (TDM XI (11))

FORMATION: 50SS



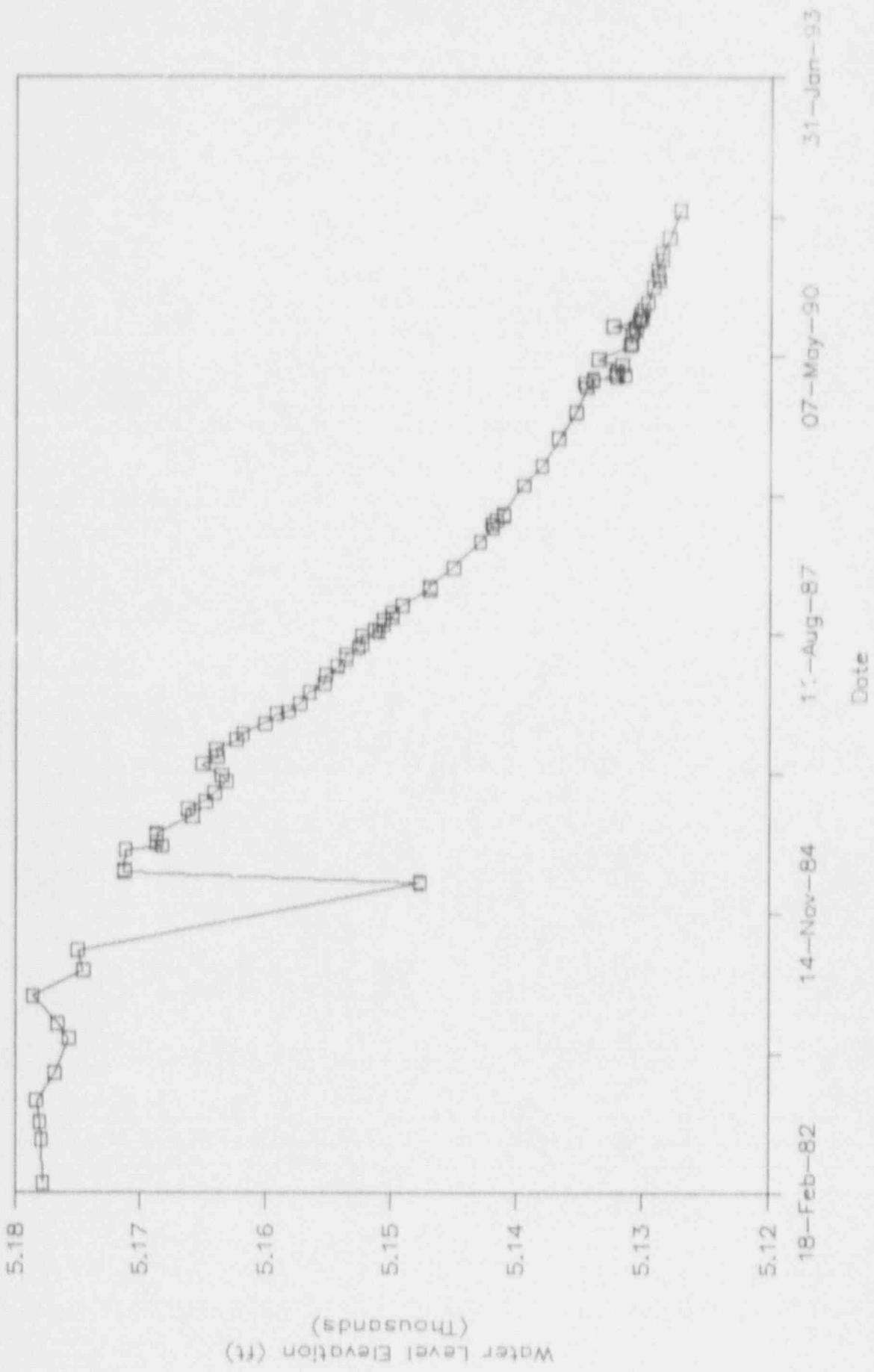
ID: 117 (TDM XII  
(12))

FORMATION: TDSS



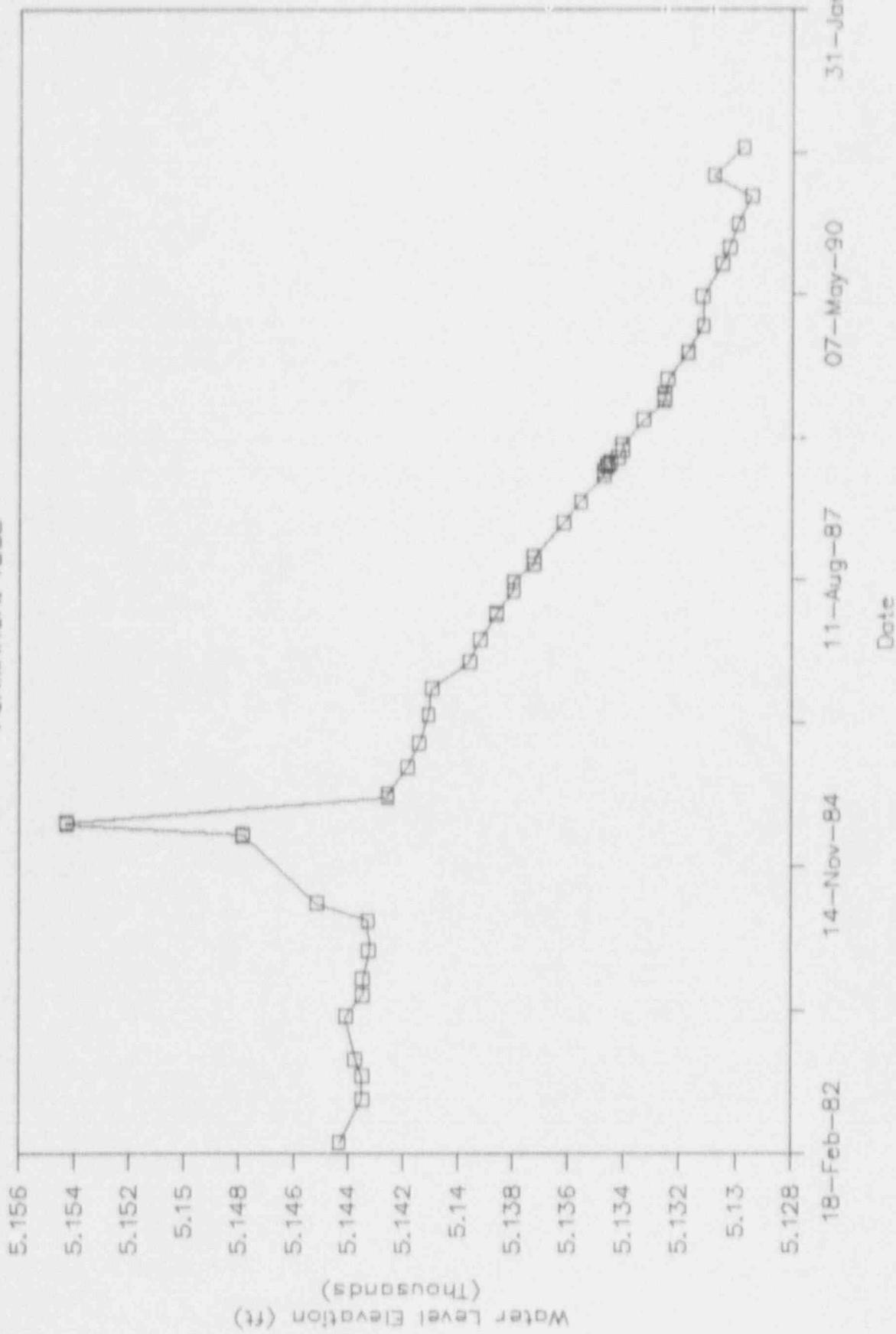
ID: 120 (TDM XXI (21))

FORMATION: TDSS



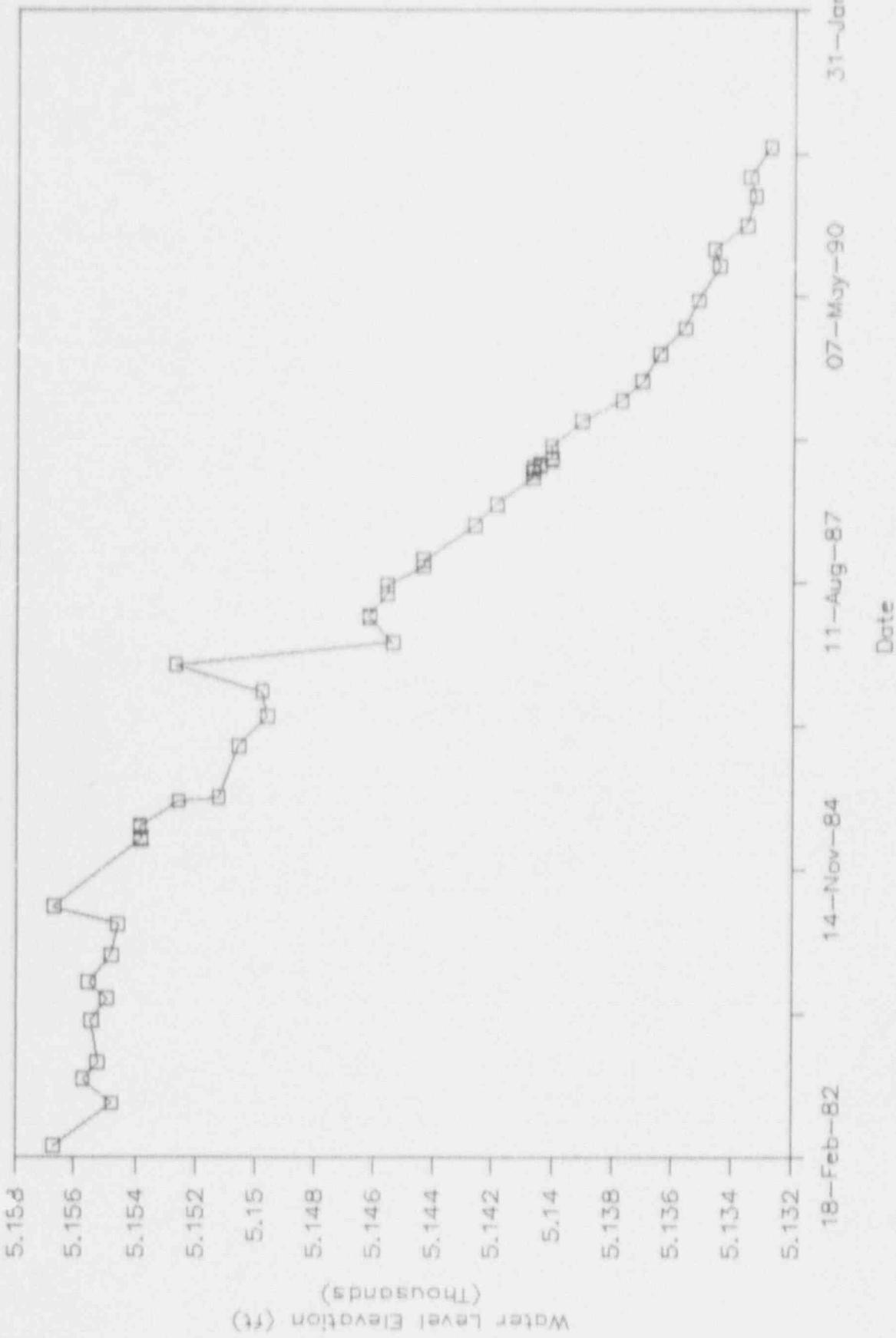
ID: 125 (TDM XXVI  
(26))

FORMATION: TDSS



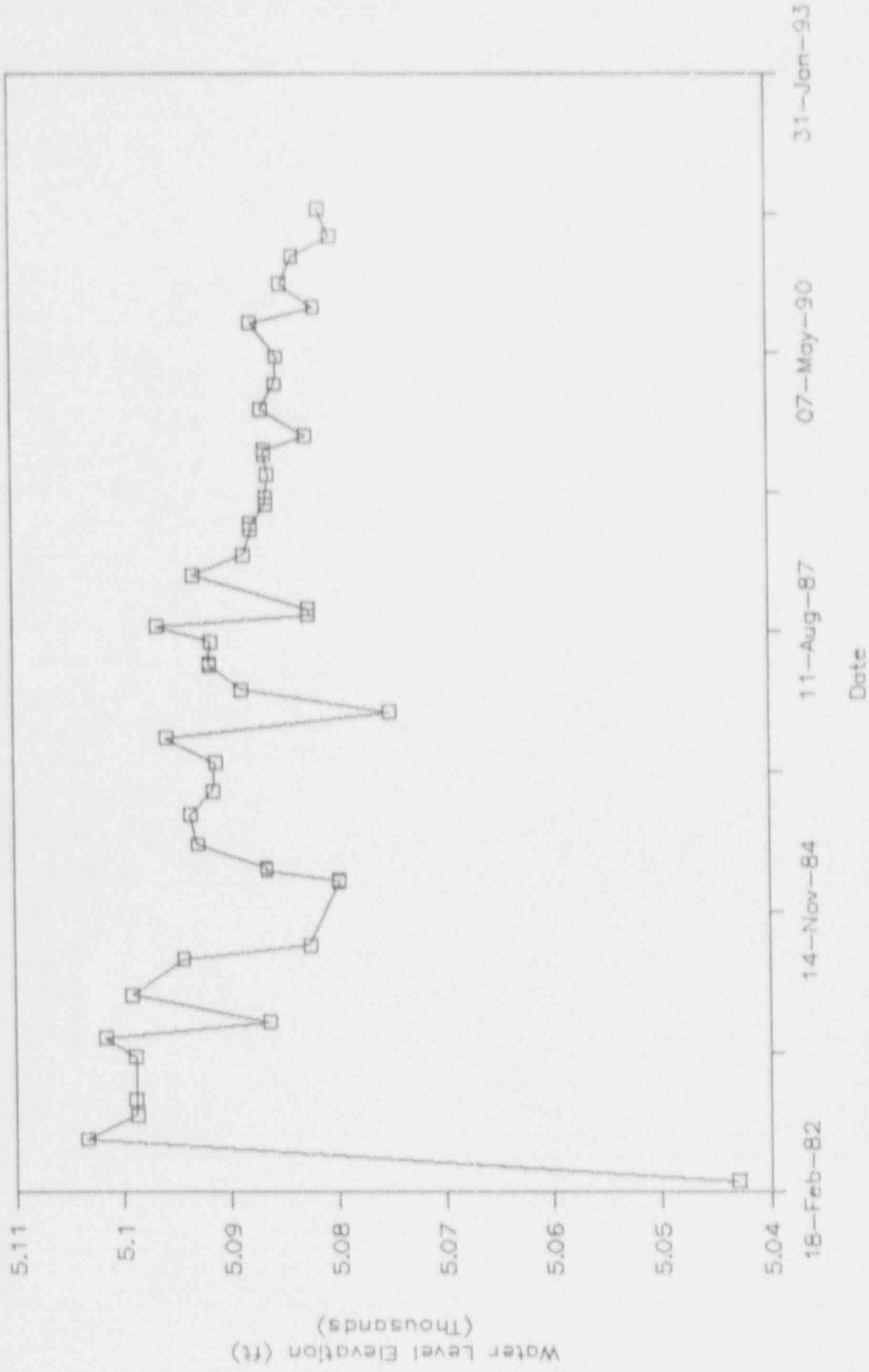
ID: 127 (TDM XXVIII  
(28))

FORMATION: TDSS



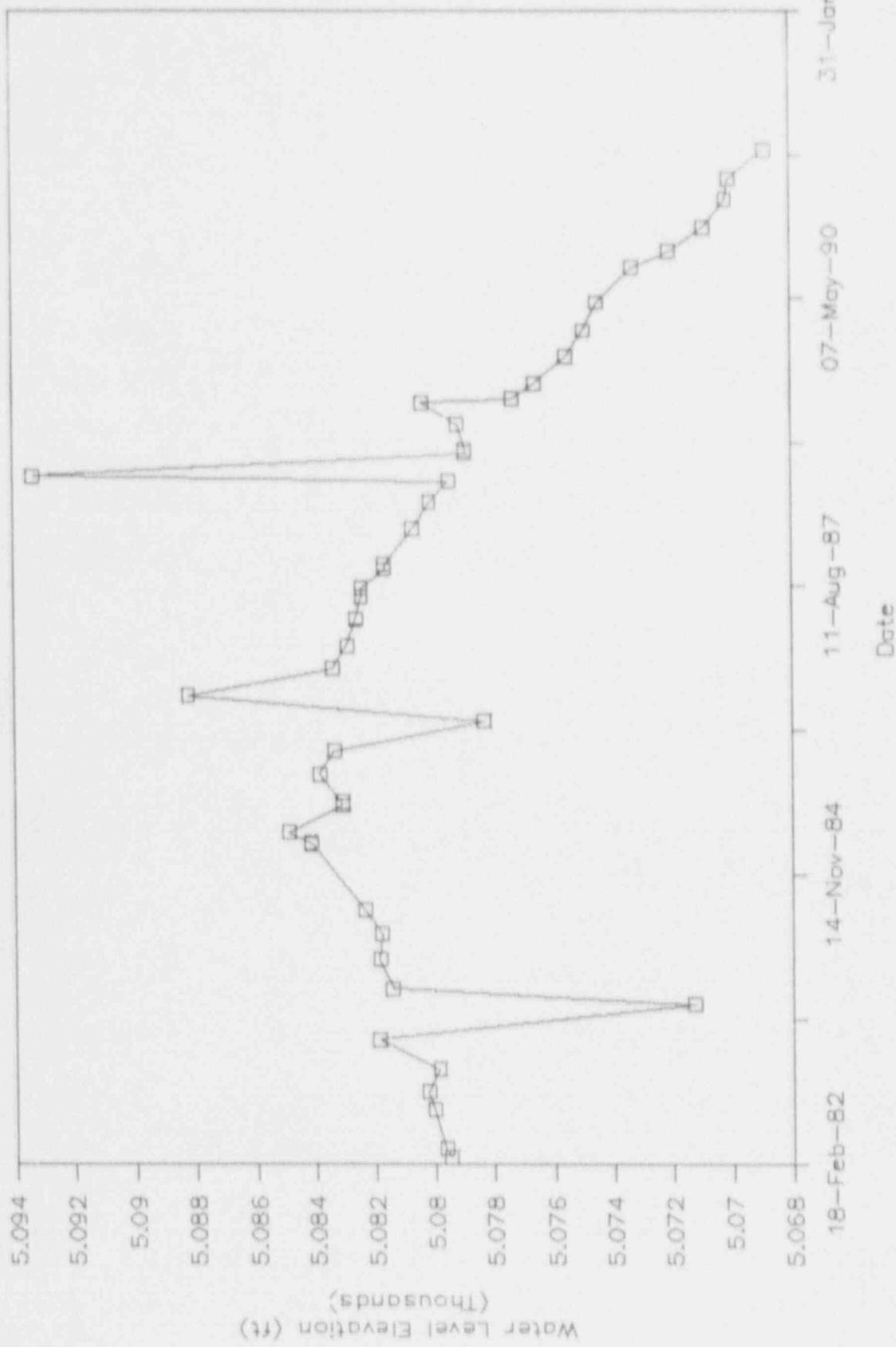
ID: 128 (TDM XXIX  
(29))

FORMATION: 50SS



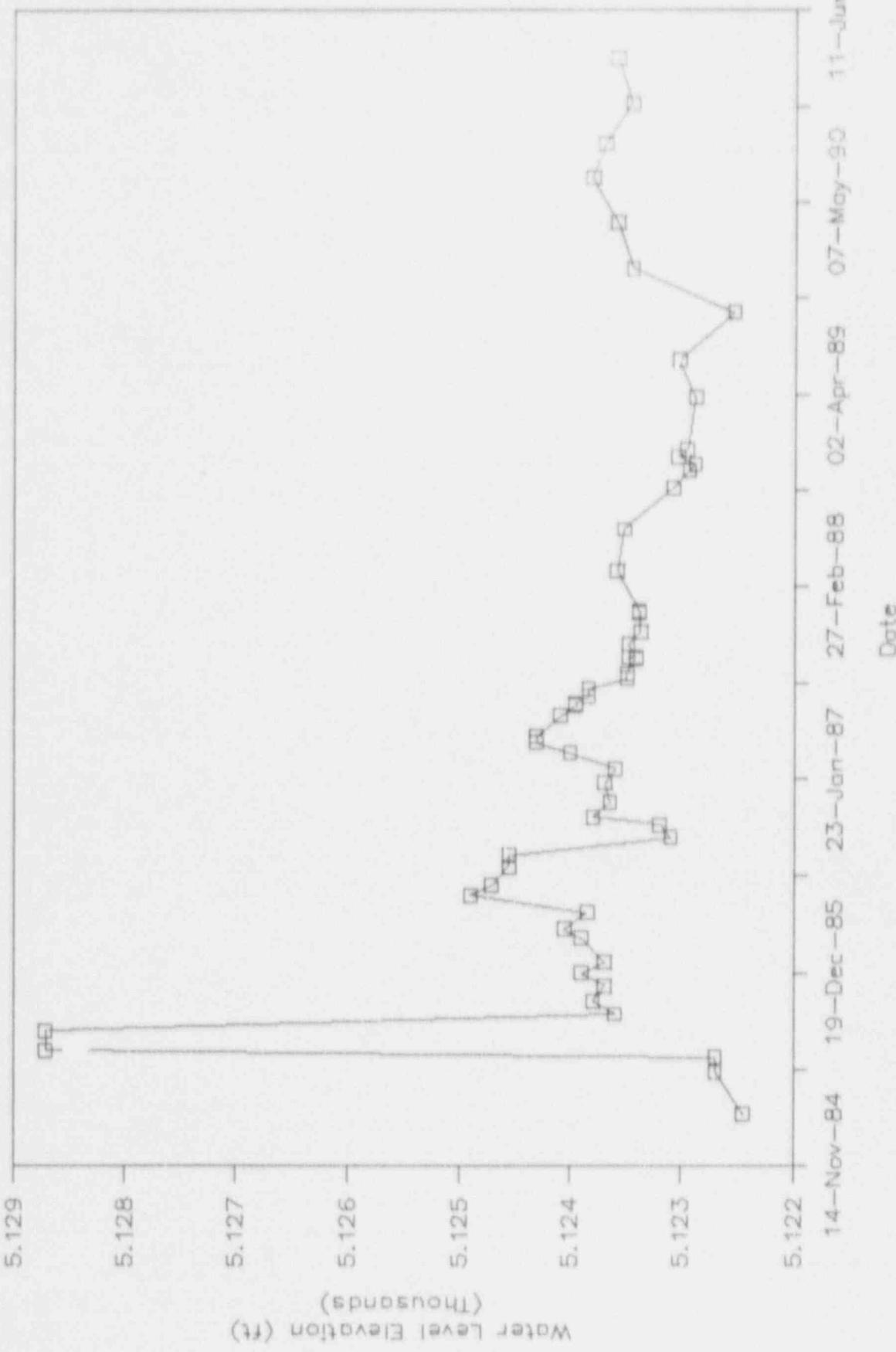
ID: 129 (TDM XXX  
(30))

FORMATION: 50SS



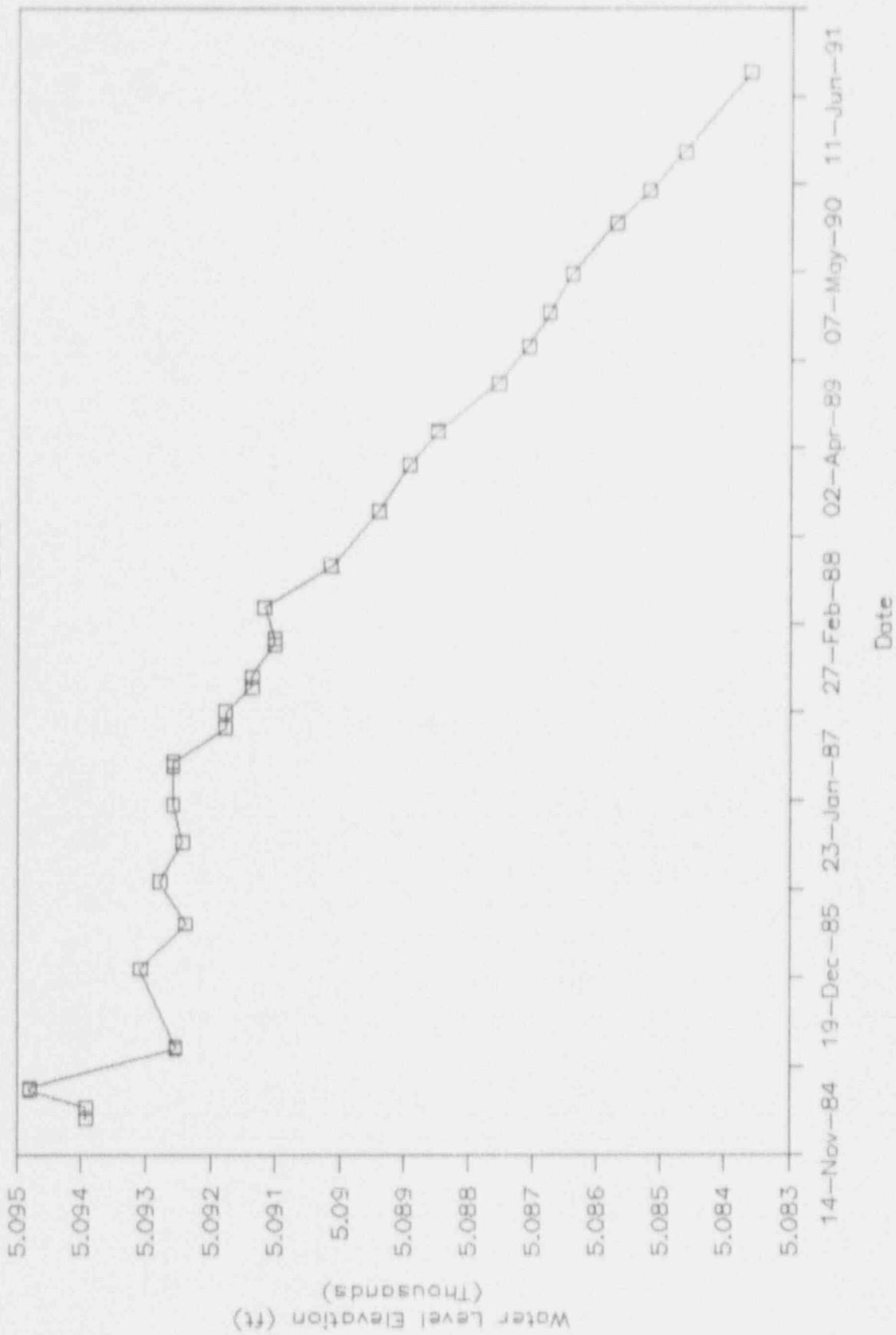
ID: 134 (RM-4 BACKGROUND)

FORMATION: TDSS



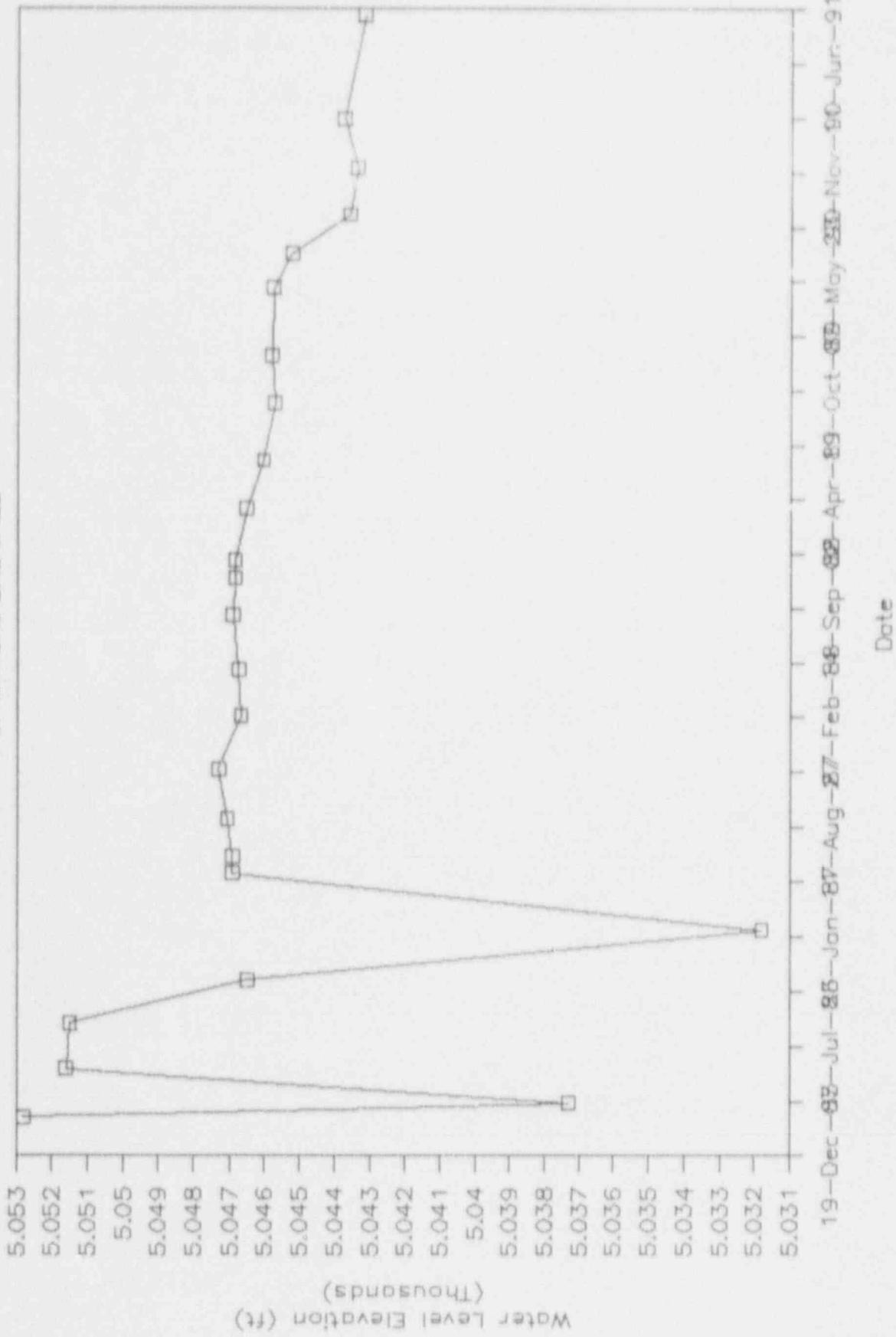
ID: 148 (TDM XXXII  
(32))

FORMATION: 50SS



ID: 171 (TDM XXXVII) (38))

FORMATION: BACKFILL

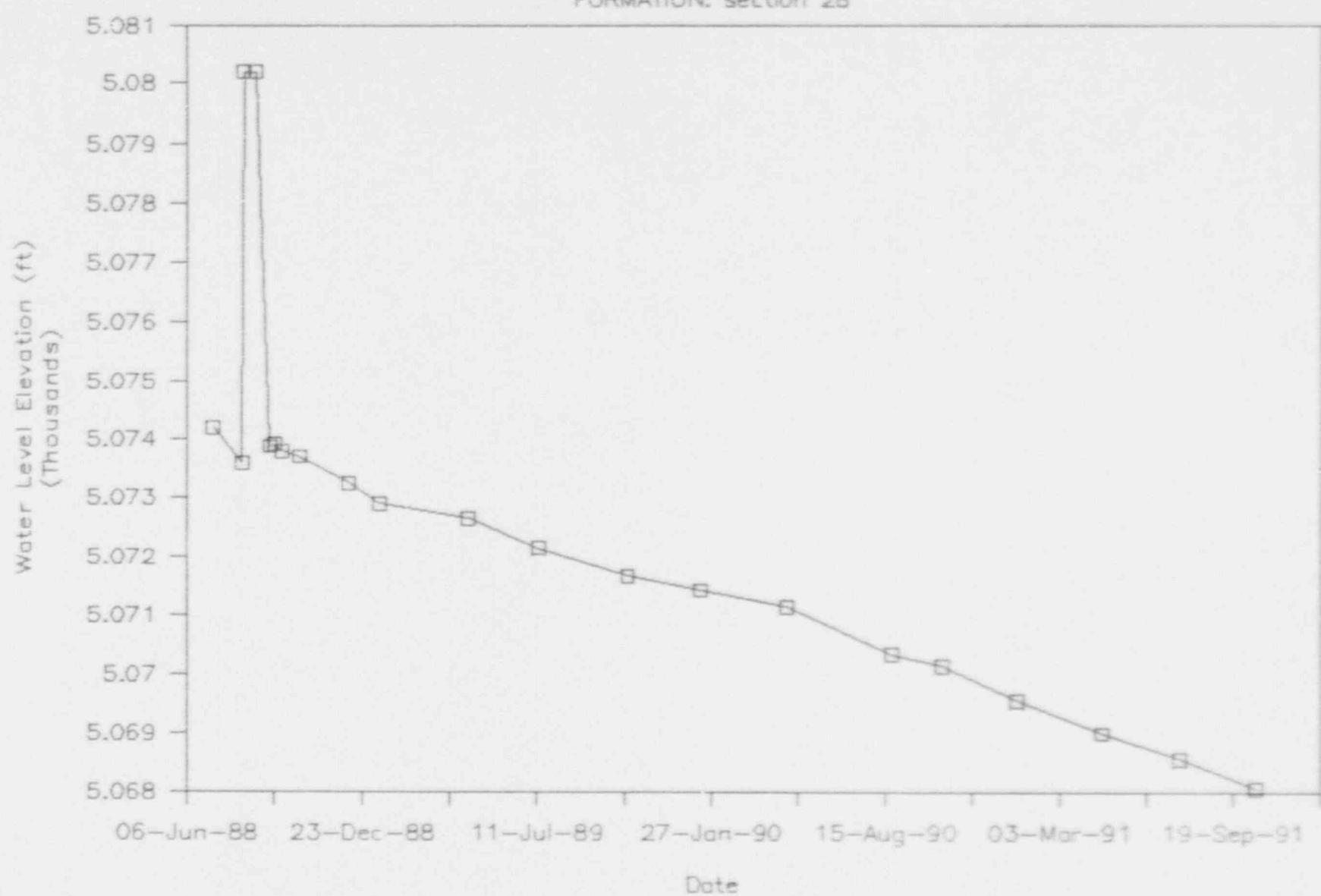


ID: 172 (SM - EM-5 drilled December 79)

FORMATION: TDSS

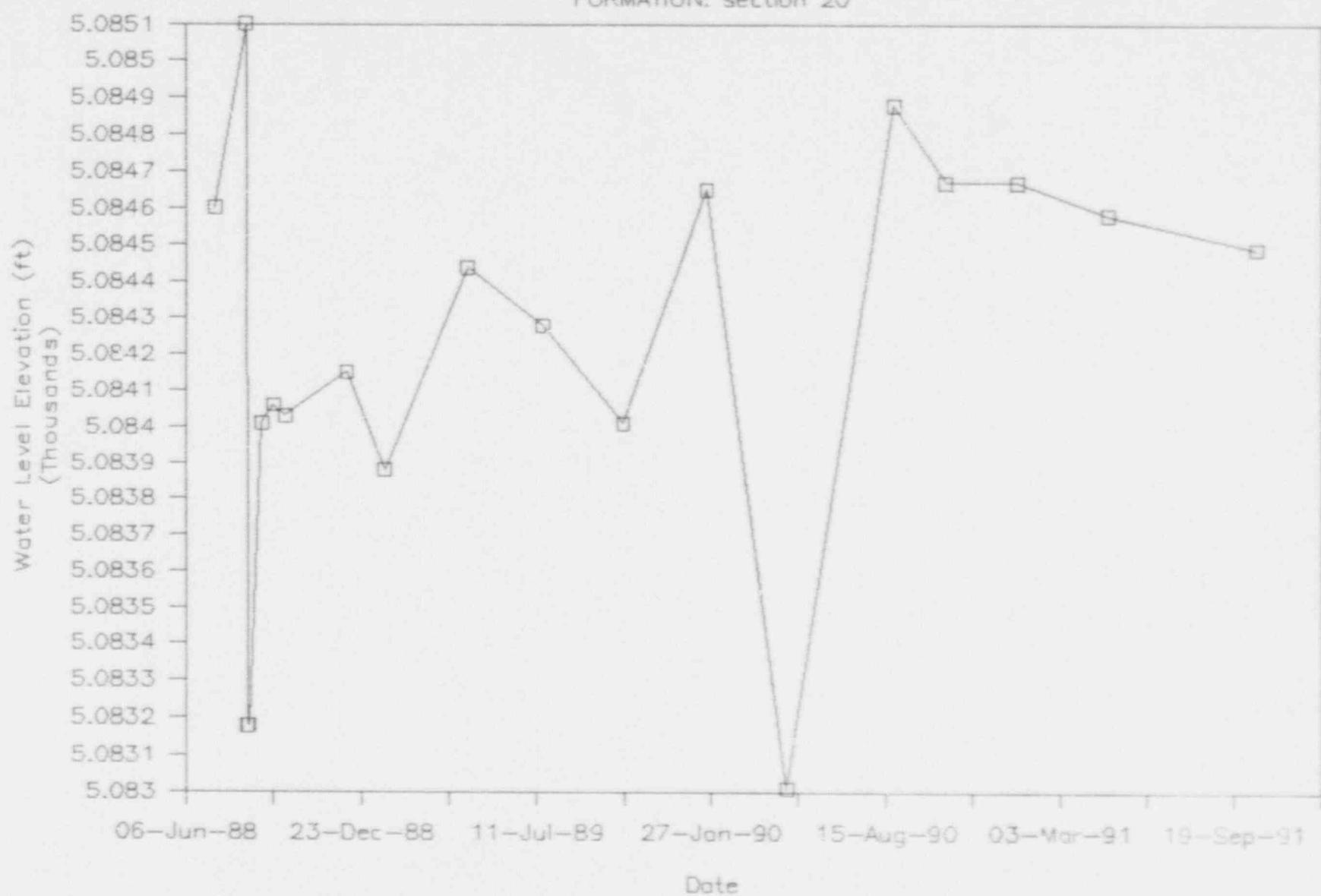
ID: 173 (TDM XXXIX)

FORMATION: section 28



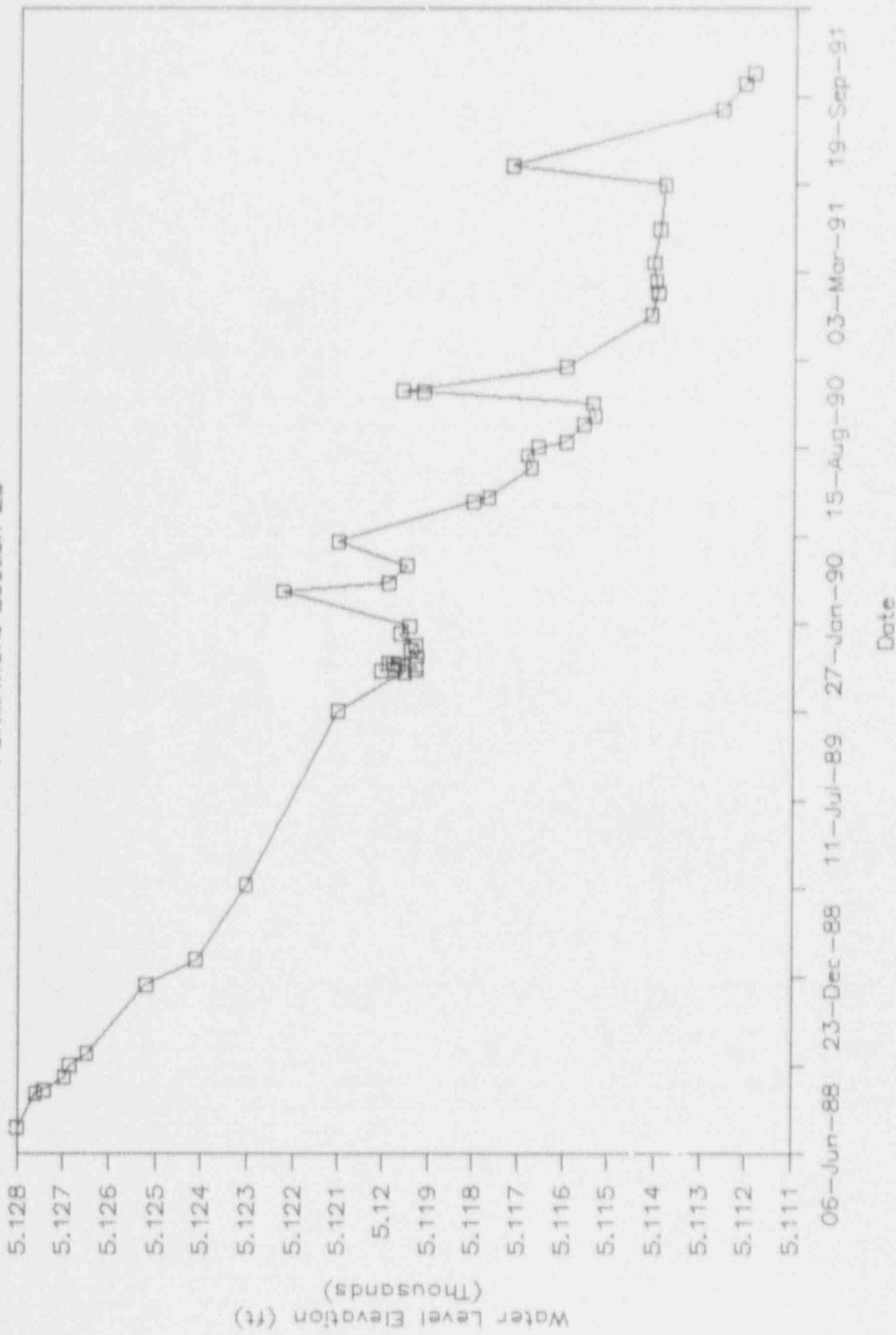
ID: 174 (TDMXL)

FORMATION: section 20



ID: 175 (TDM XLI)

FORMATION: Section 28

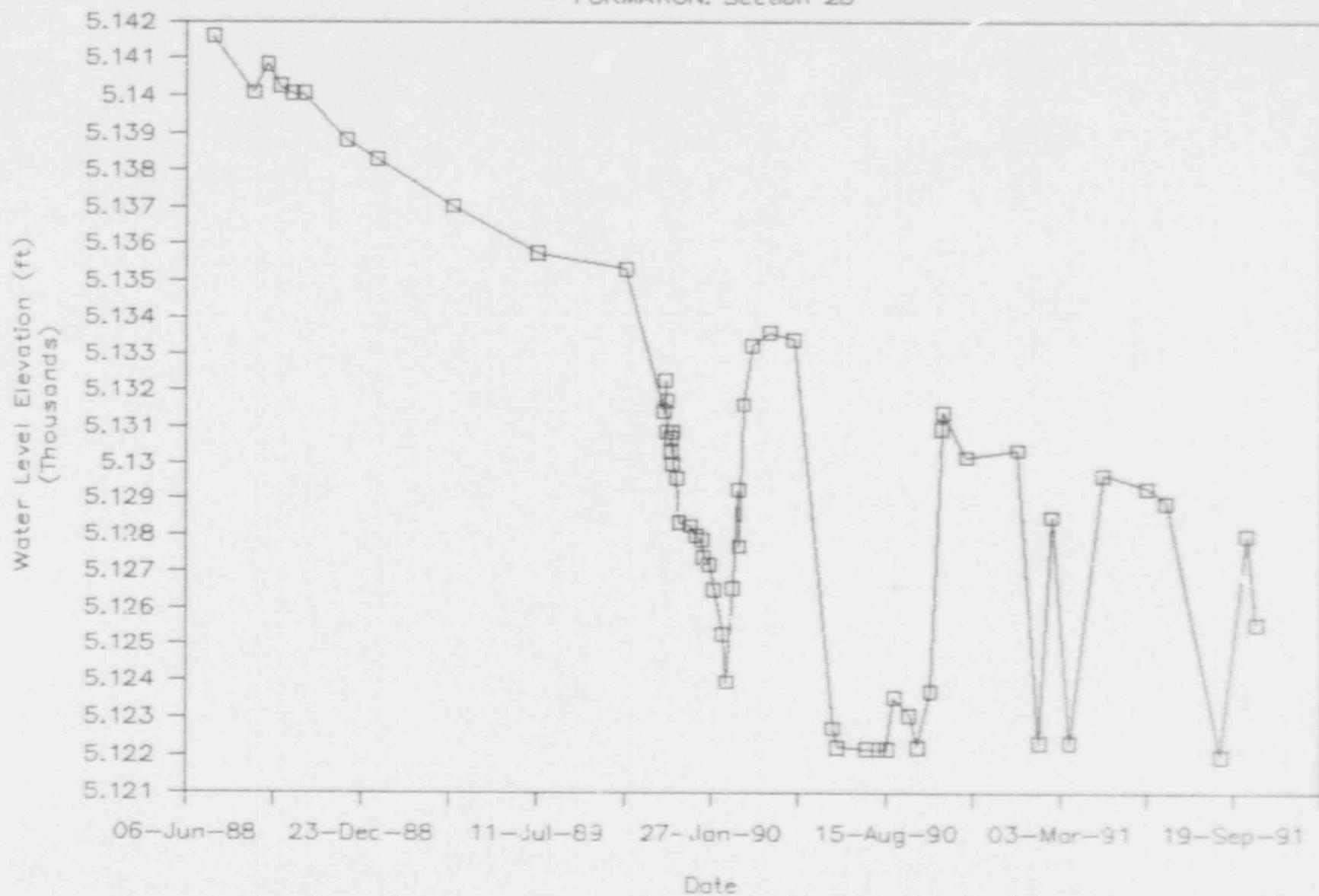


ID: 176 (TDM\_XLII)

FORMATION: Section 21

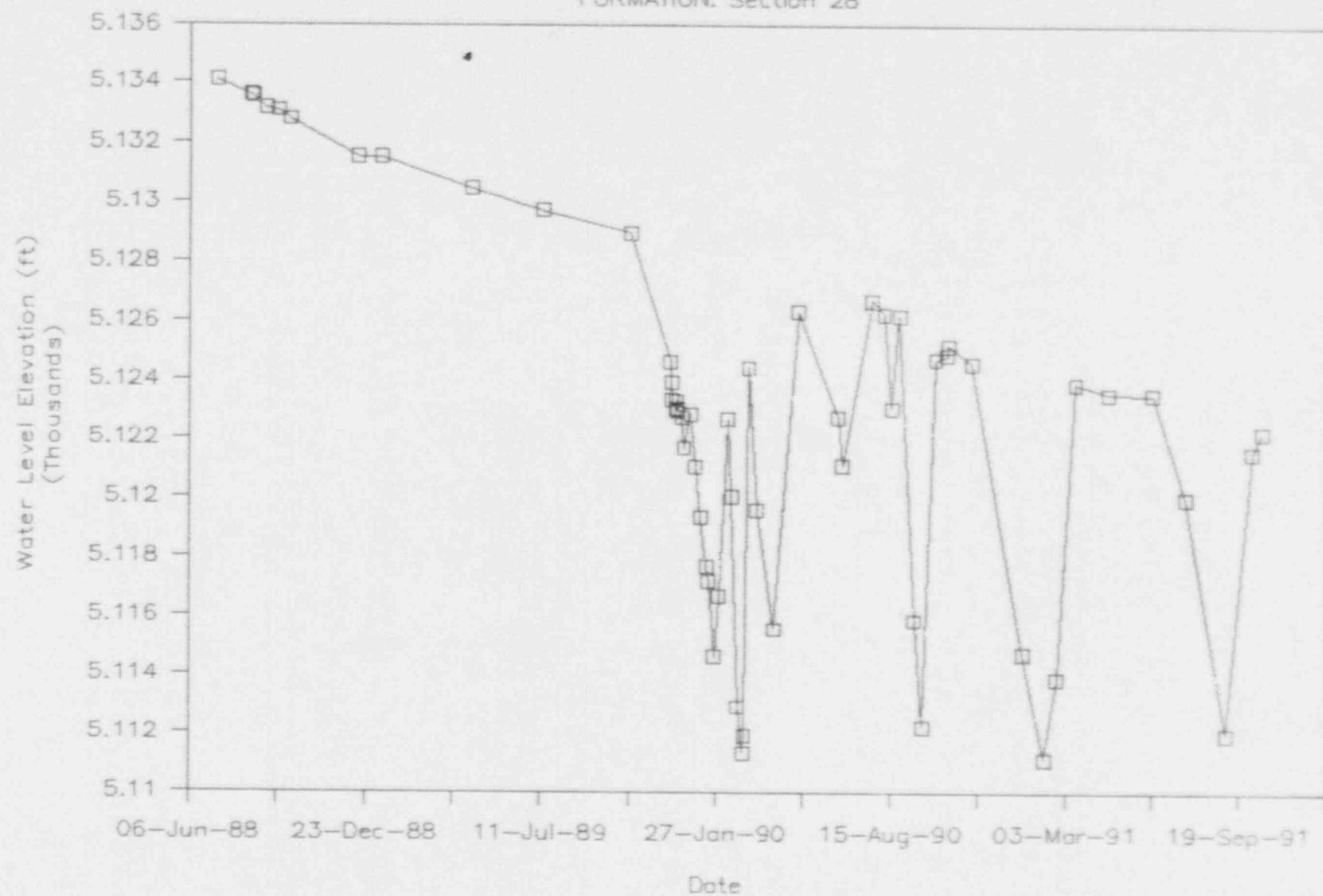
ID: 177 (TDM XLIII)

FORMATION: Section 28



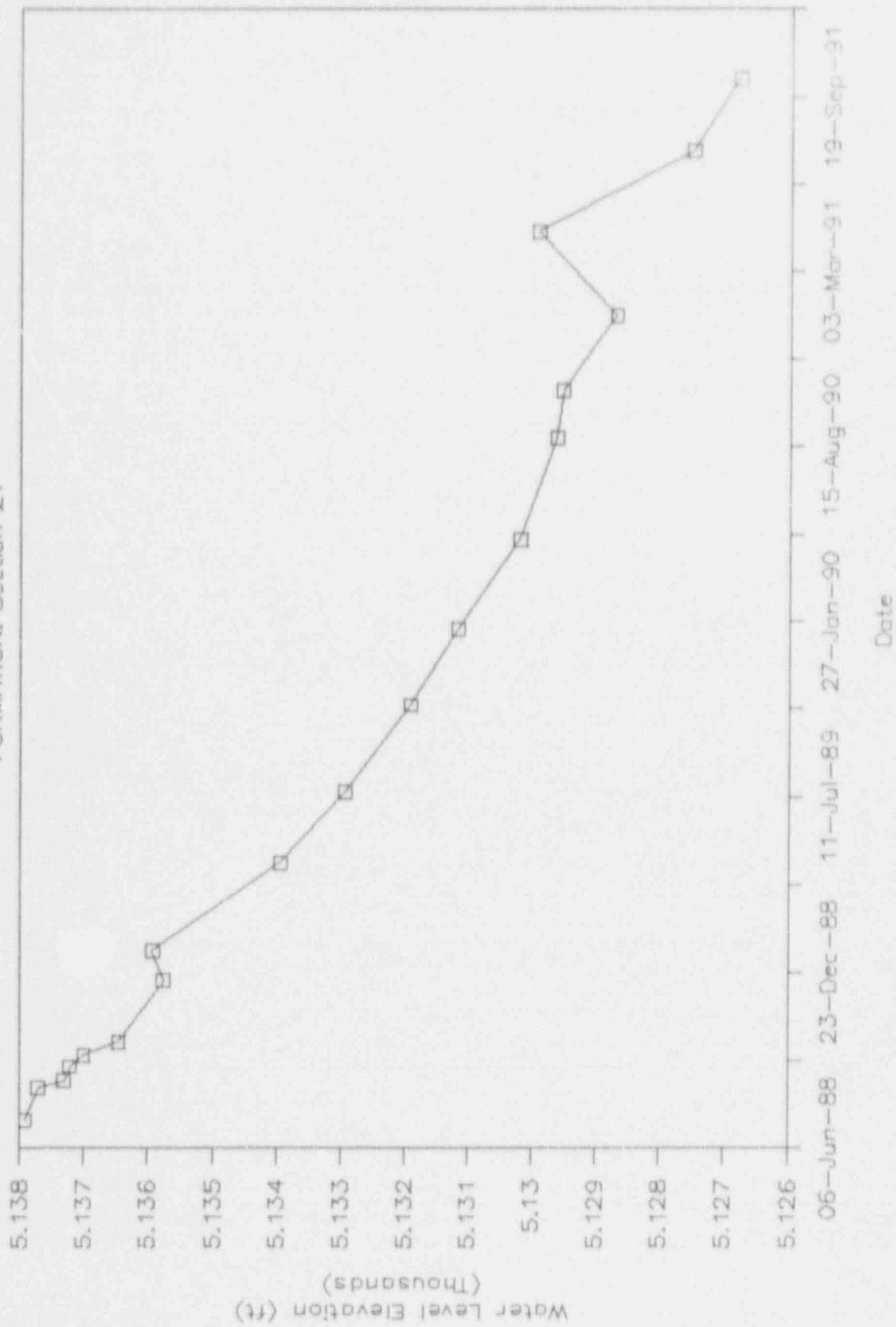
ID: 178 (TDM XLIV)

FORMATION: Section 28



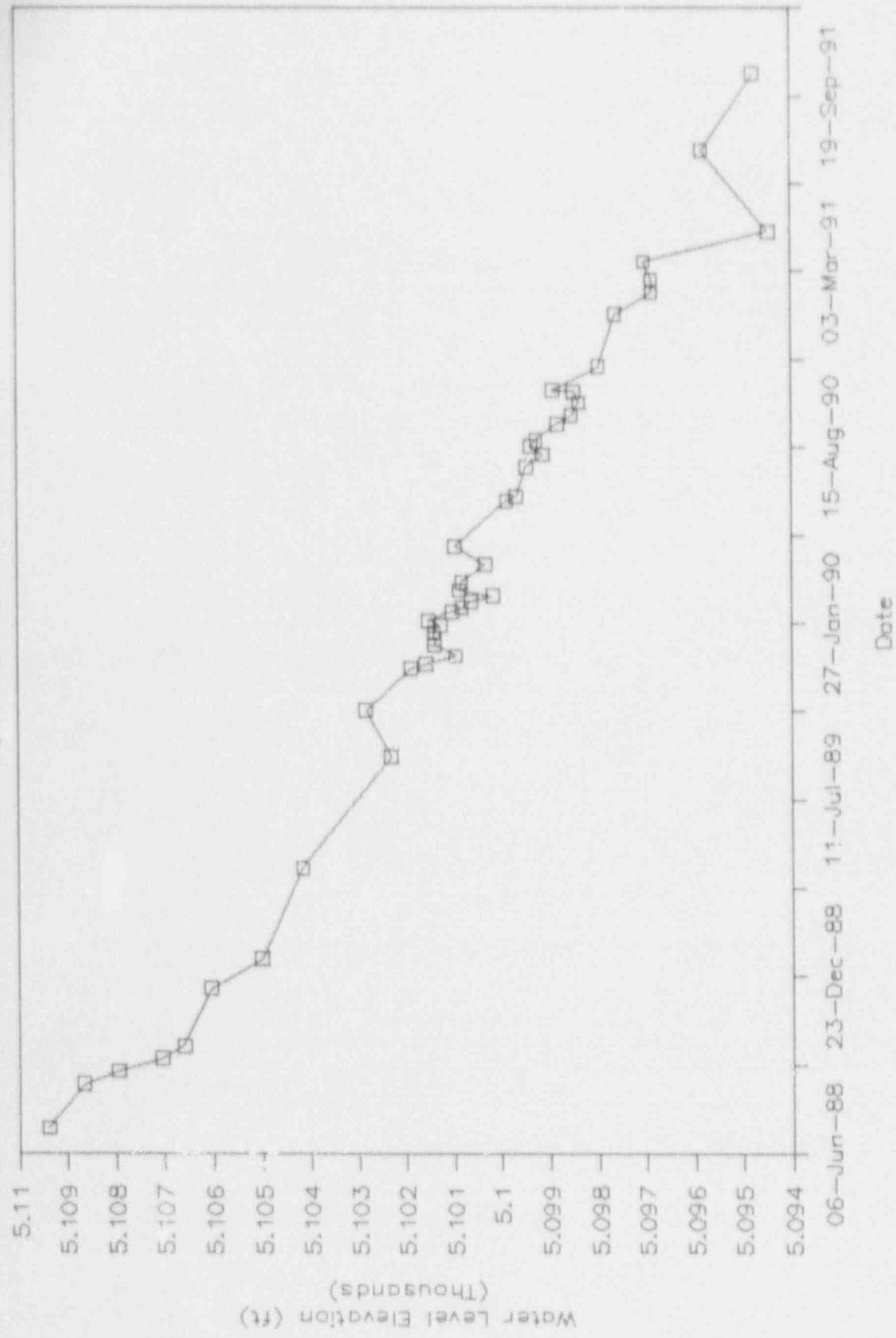
ID: 179 (TDM XLV)

FORMATION: Section 21



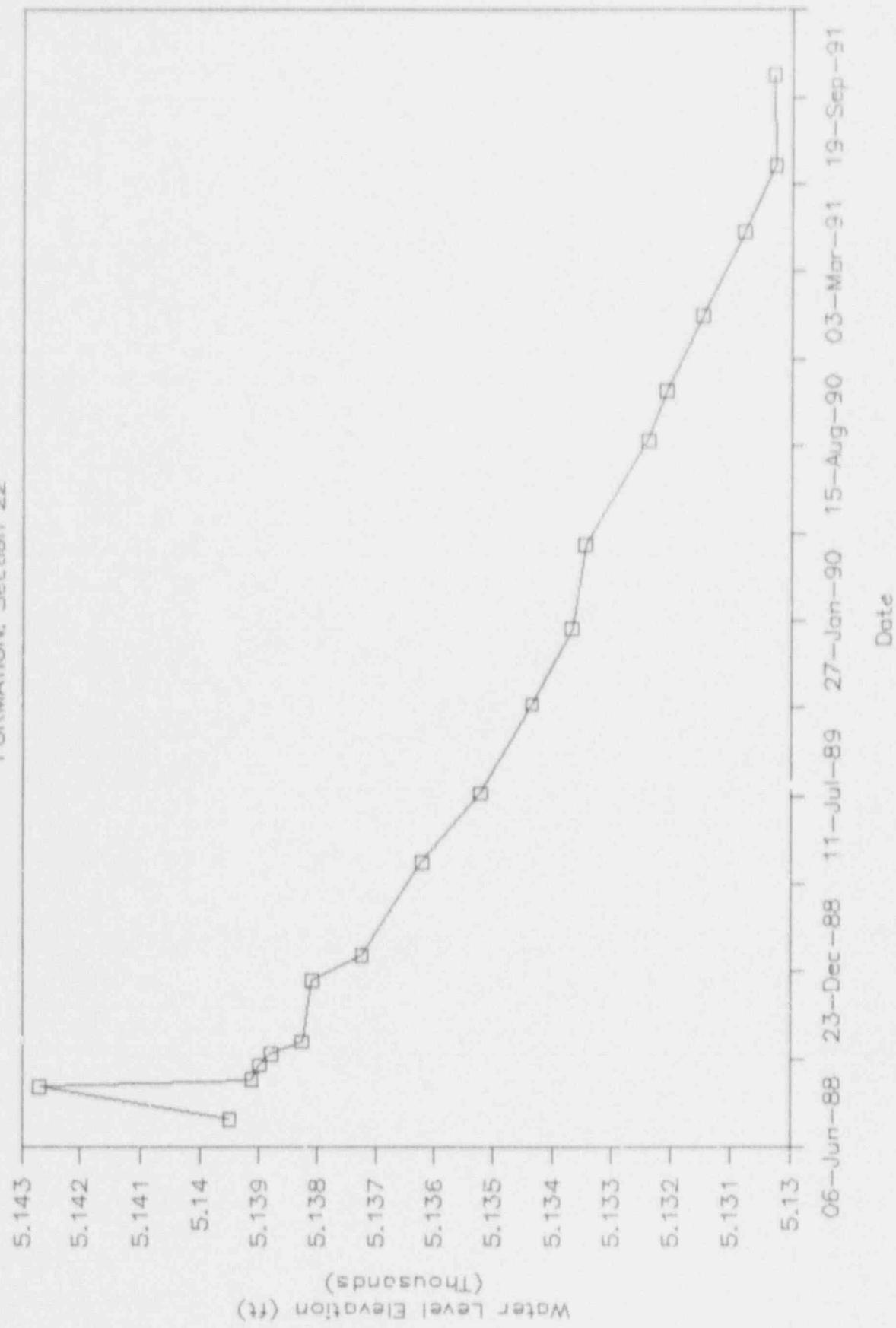
ID: T80 (IDM XLVI)

FORMATION: Section 28



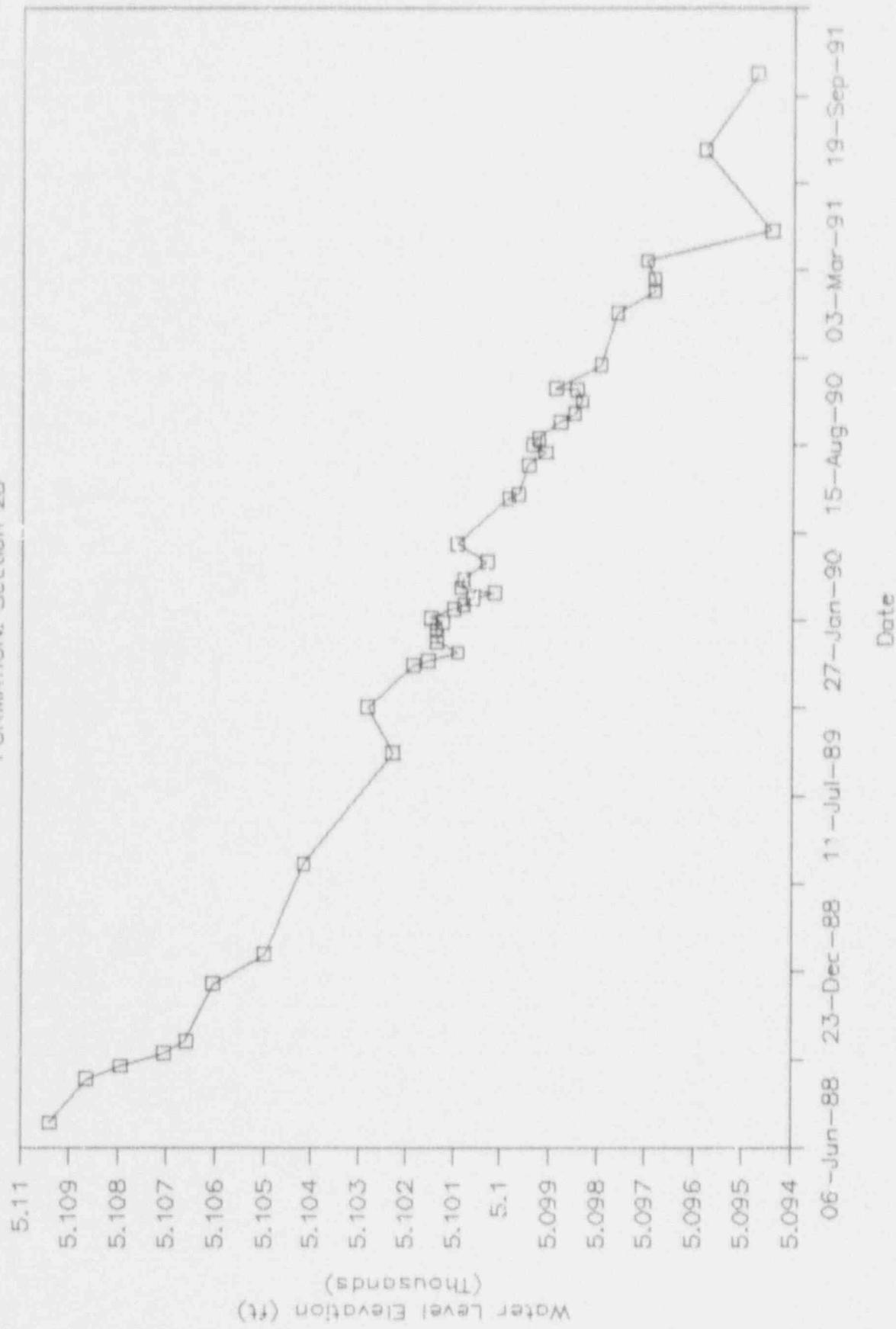
ID: 181 (TDM XLVII)

FORMATION: Section 22



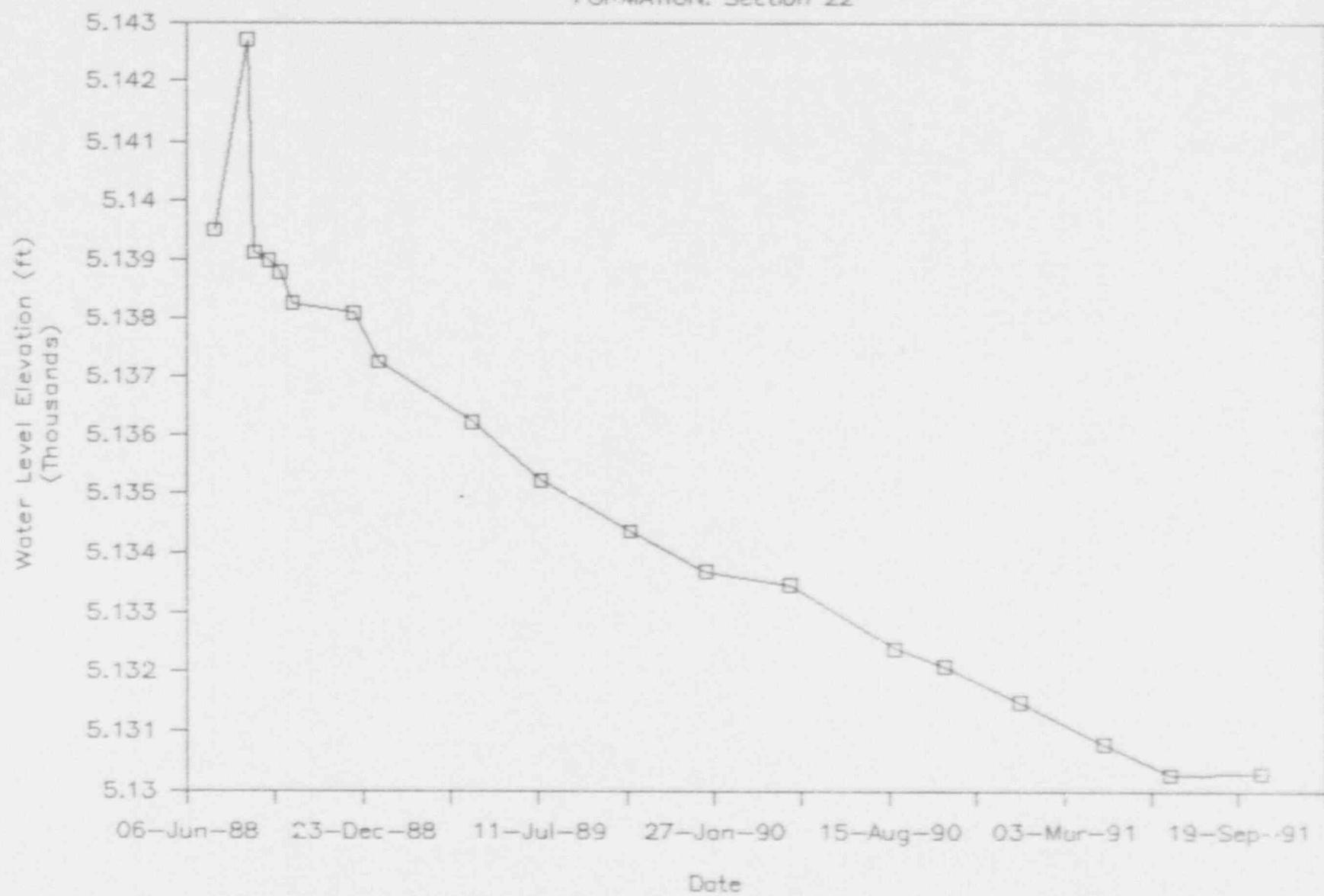
ID: 180 (TDM XLVI)

FORMATION: Section 28



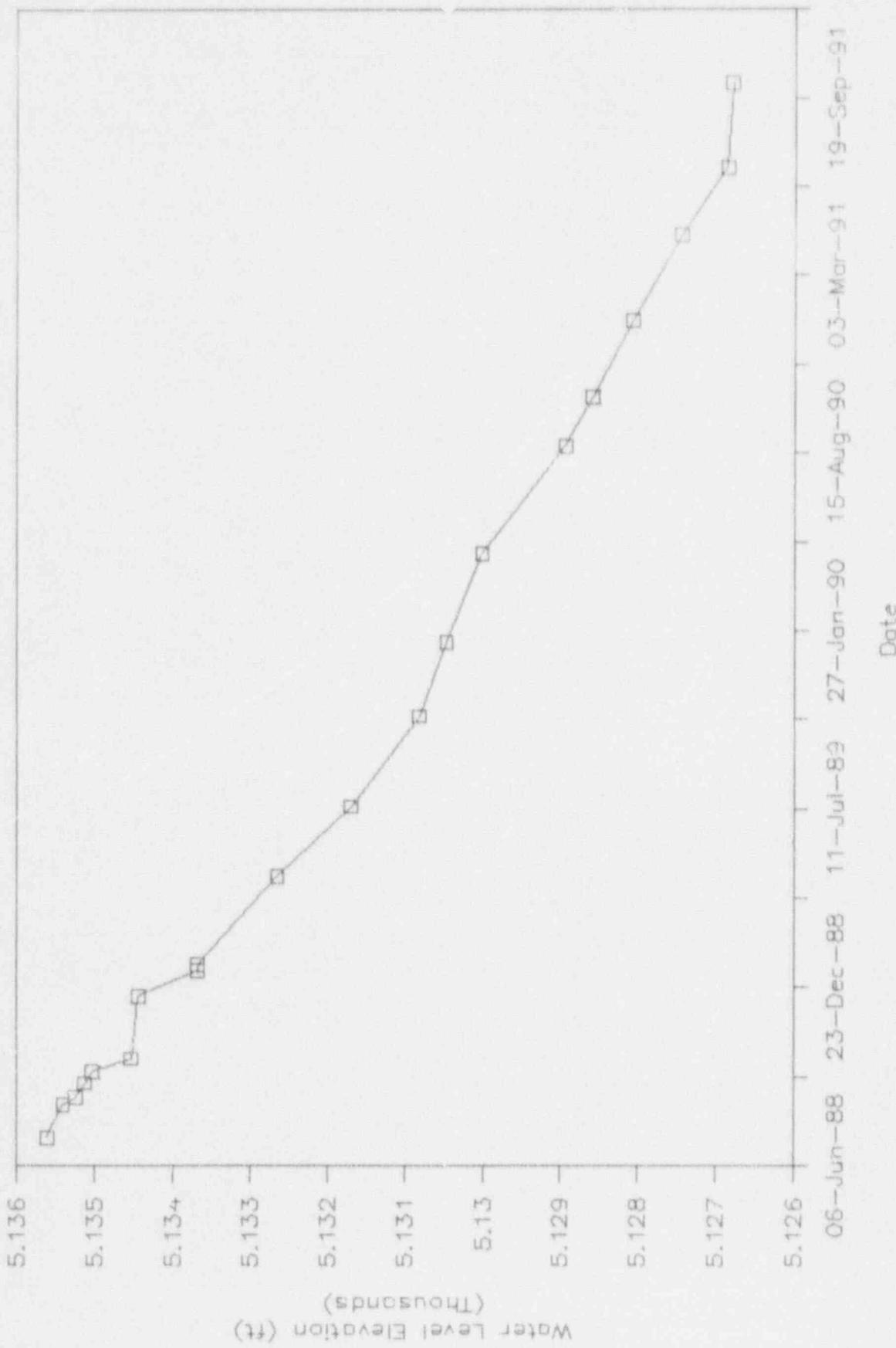
ID: 181 (TDM XLVII)

FORMATION: Section 22



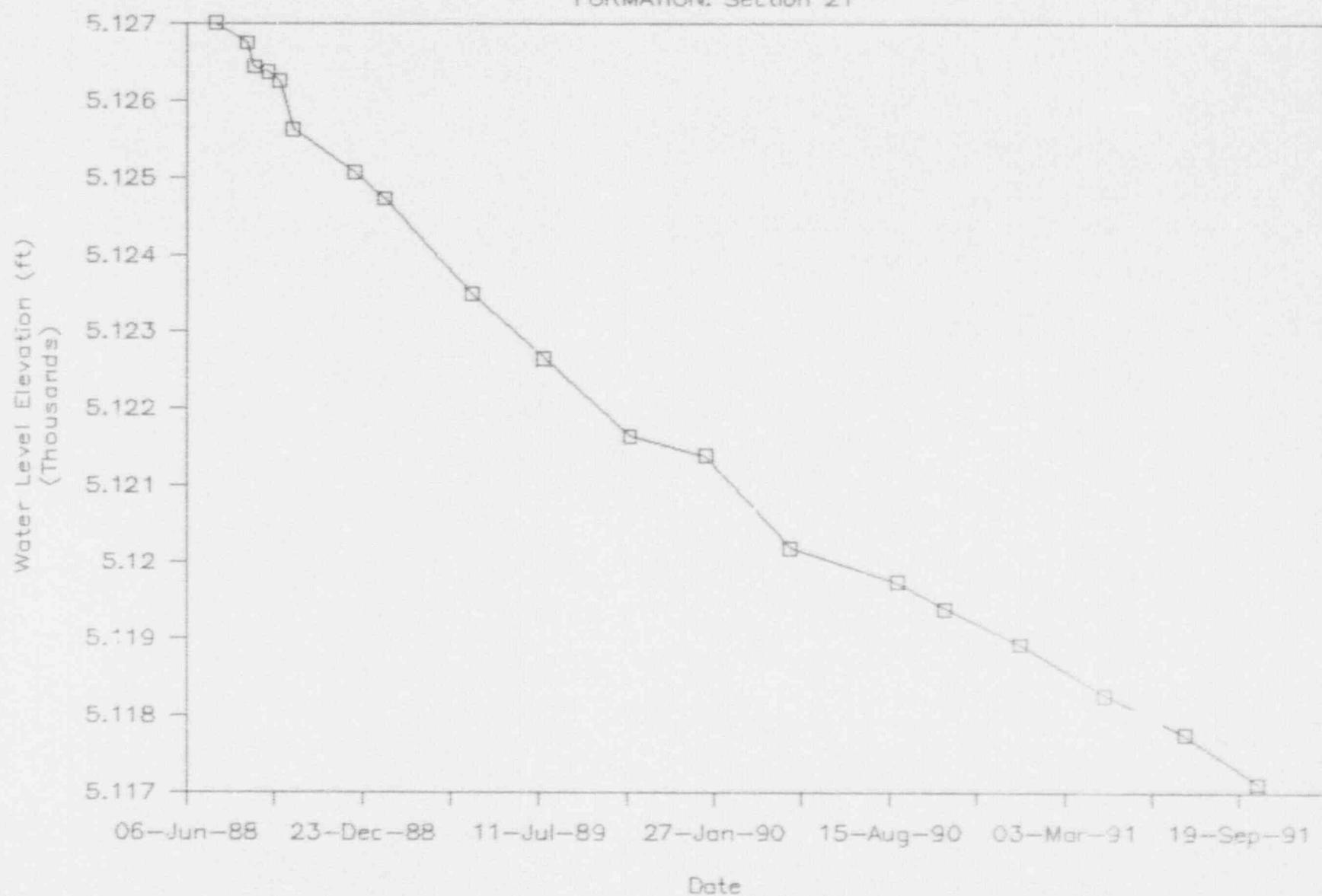
ID: 182 (TDM X LVIII)

FORMATION: Section 22



ID: 183 (TDM XLIX)

FORMATION: Section 21



ID: 167 (HIGHLAND LAKE SURFACE)

FORMATION: PIT 3-4 RESERVOIR

