



January 28, 1991

R. Davis Hurt
Advanced Fuel & Special Facilities Section
Fuel Cycle Safety Branch
Division of Industrial & Medical
Nuclear Safety
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Radioactive Material Storage Area
Parkersburg, West Virginia

Dear Mr. Hurt:

In June 1990, several representatives from the Nuclear Regulatory Commission, Department of Energy, and Amax met in Parkersburg, West Virginia and visited the Amax radioactive material storage area. The purpose of the meeting was to discuss what further action or information is required in order to transfer title and custody of the Amax radioactive material storage site to DOE as authorized in the Nuclear Waste Policy Act of 1982.

The DOE representatives raised questions regarding the construction of the four monitoring wells at the Amax site and the capability of these wells to measure water levels. DOE also raised some questions with respect to construction of the storage area cap. Jim Kerrigan of our office provided information on the monitoring wells and construction of the cap under cover of October 23, 1990 to Mrs. Lorie Cahn with Chem-Nuclear Geotech, consultant to DOE. In addition, Amax has had its contractor measure water levels in the four monitoring wells during June and October 1990 and January 1991. Those data and a cover memo from Jim Kerrigan to me are enclosed (a copy of this letter and data are being forwarded to Mrs. Cahn).

We understand that DOE and the NRC are still waiting to receive a report from Chem-Nuclear Geotech with respect to any additional information or requirements that should be satisfied before the Amax storage area is transferred to DOE. As you are aware, this matter has been pending for two years and we hope that it can be concluded in the near future. We suggest another meeting of the parties is appropriate in order to review any outstanding issues and set a schedule for completing the site transfer.

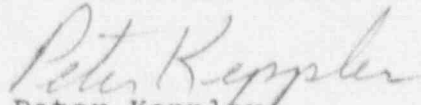
AMAX Inc. Western Area Law Department
1626 Cole Boulevard, Golden, Colorado 80401-3293 USA
Telephone (303)-234-9020; Facsimile (303)-231-0222

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PDR ADDCK 04008820
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I will call you in the next few days to schedule another meeting among NRC, DOE, and Amax.

Yours truly,



Peter Keppler
Assistant General Counsel

cc: Ms. Lorie Cahn
Chem-Nuclear Geotech
P. O. Box 1400
Grand Junction, CO 81502



Memorandum

To: Peter Keppler
From: Jim Kerrigan
Subject: **Wood County Stabilization Site
Groundwater Levels**

January 23, 1991

Here are the data on the groundwater levels measured at the site since June 22, 1990, with the graphical presentation of the results.

The results were not available earlier because of questionable elevations reported on the topographic map dated October 25, 1982. Poor weather conditions in West Virginia during December and early January made it difficult to run a survey to check the reported elevations. The new survey completed on January 18, 1991, indicated only negligible differences for monitoring wells MW2, MW3 and MW4, but a major error for the elevation of MW1 located in the northeastern corner of the stabilized area. The correct elevation for the top of the casing for MW1 is 638.00 M.S.L., 1.55 feet above the previously reported elevation.

The reach of the Ohio River bordering on the west of the property is controlled by a lock system. The river was measured at elevation 584.74 on January 18, 1991, under high flow conditions. The normal operating level is closer to elevation 580.

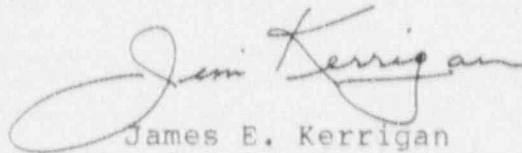
A review of the data indicates that the average water level elevation is increasing with time as the region recovers from the record-breaking drought condition experienced two years ago.

Generally the water table is relatively flat, especially for October 26, 1990 when the potential for movement was to the northwest. The water level measurements for June 22, 1990 and January 18, 1991 were less consistent and the potential for flow was to the north-northwest.

Wood County Stabilization Site
Groundwater Levels
January 23, 1991 - Page 2

The area is naturally impacted by recharge from direct precipitation around the site, groundwater flow from the hills to the east, bank storage in the gravel-sand aquifer and the Ohio River. Record drought conditions experienced in West Virginia in 1989 had a significant impact and caused the water levels to decline below the pumps in the monitoring wells. Also, the industrial well operated by the firm north of the site impacted the water levels and direction of flow. The ability of the underlying aquifer to respond rapidly to the various hydraulic potential indicates the high hydraulic conductivity of the aquifer. Therefore, the water levels reported are not surprising and support the need for the four monitoring wells at the site.

These measurements are of interest to the staff and consultants reviewing the project for NRC and DOE. If anyone has any questions, please don't hesitate to contact me at (303) 231-0204.



James E. Kerrigan

JEK/jb
Attachments (9)

cc: K. Paulsen



Figure 1 Location of Property

1/23/91 (1)

0 400'

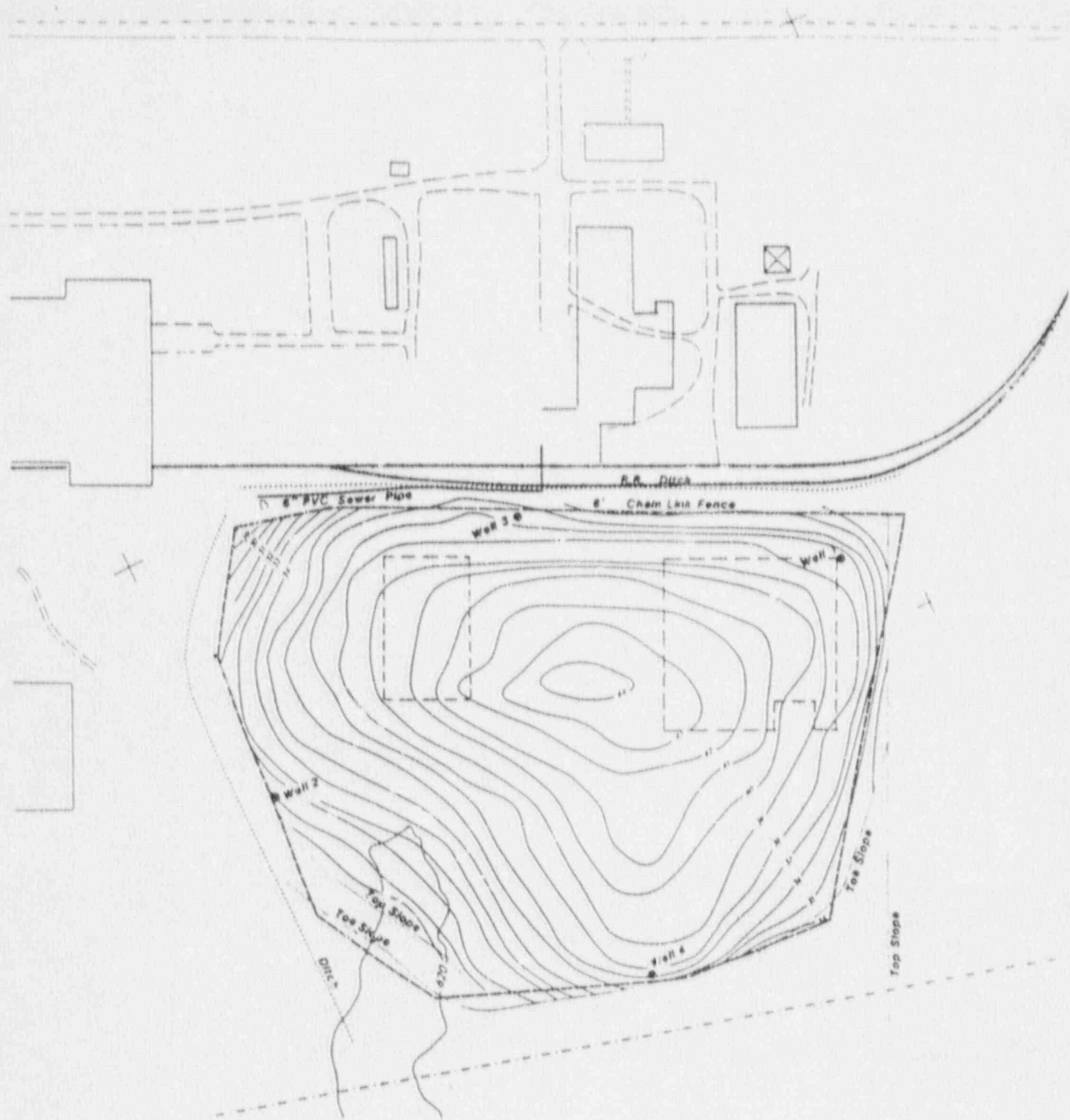


Figure 2 Monitoring Wells

1/23/91 (2)

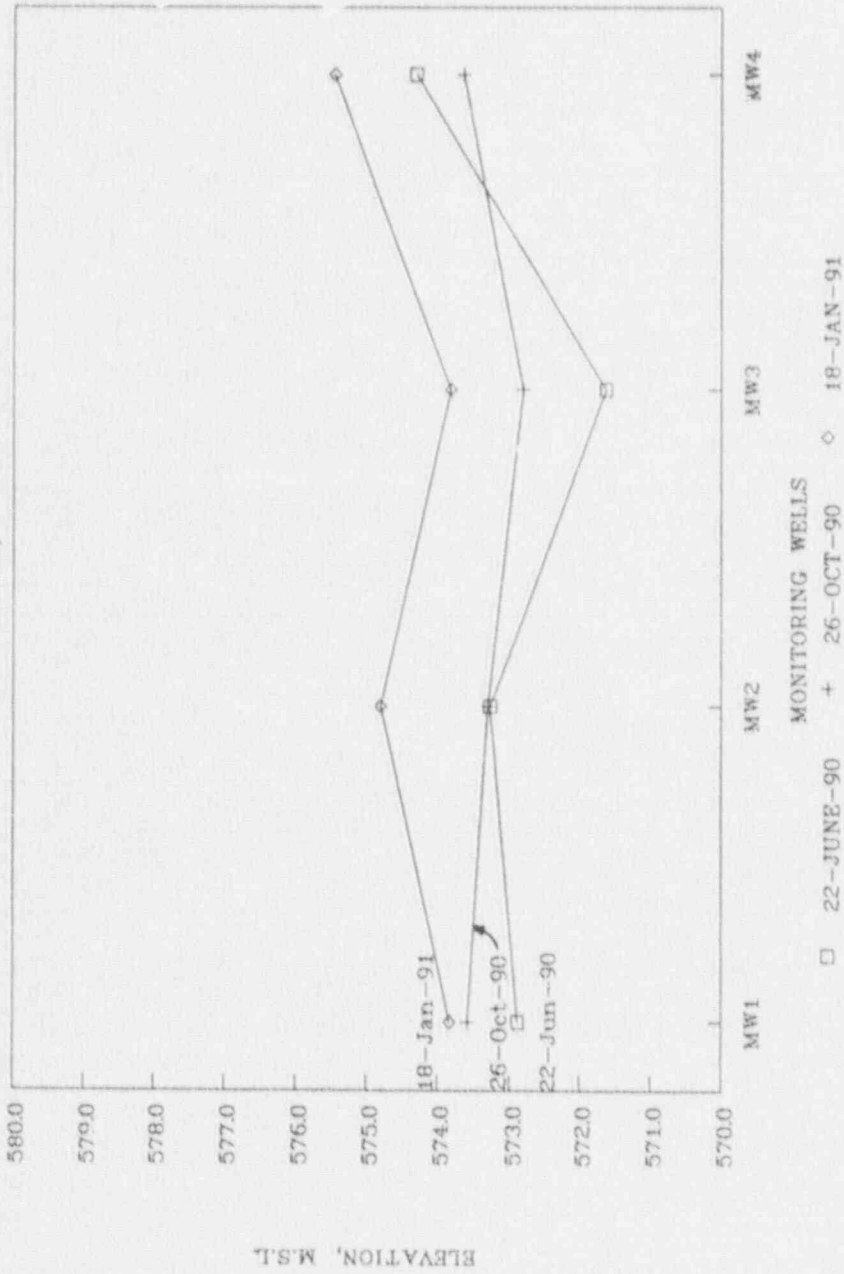
WOOD COUNTY STABILIZATION SITE
 PARKERSBURG, WEST VIRGINIA

MEASUREMENTS OF WATER ELEVATION IN MONITORING WELLS

	DATE	MW1	MW2	MW3	MW4	AVERAGE
TOP OF MONITORING WELL CASING						
TOPO MAP	25-NOV-82	636.45	633.54	638.36	639.70	
		***** ERROR IN REPORTED ELEVATION				
NEW SURVEY	18-JAN-91	638.00	633.47	638.32	639.64	
WATER ELEVATIONS FOR WELLS ON						
	22-Jun-90	572.89	573.27	571.63	574.31	573.03
	26-Oct-90	573.58	573.3	572.82	573.64	573.34
	18-Jan-91	573.83	574.80	573.82	575.46	574.48

COMPARISON OF WATER LEVELS

WOOD COUNTY, WV



WOOD COUNTY STABILIZATION SITE
PARKERSBURG, WEST VIRGINIA

MEASUREMENTS OF WATER ELEVATION IN MONITORING WELLS

DATE	1/18/91					
WELL NUMBER		MW1	MW2	MW3	MW4	Average
TOP OF WELL CASING		638.00	633.47	638.32	639.64	
GROUND ELEVATION		636.80	631.30	635.70	637.00	
TOP OF CASING TO GROUND LEVEL		1.20	2.17	2.62	2.64	
TOP OF CASING TO WATER		62.97	56.50	61.38	61.54	
WATER ELEVATION		573.83	574.80	573.82	575.46	574.48
DIFFERENCE W/ MEAN WATER LEVEL		0.648	(0.322)	0.658	(0.982)	
TOP OF CASING TO PUMP		93.83	89.83	68.00	71.42	
TOP OF PUMP ELEVATION		544.17	543.64	570.32	568.22	
TOP OF CASING TO WELL BOTTOM		99.42	96.25	70.25	78.11	
BOTTOM OF WELL ELEVATION		538.58	537.22	568.07	561.53	
OHIO RIVER ELEVATION	584.74					

DATE	10/26/90					
WELL NUMBER		MW1	MW2	MW3	MW4	Average
TOP OF WELL CASING		638.00	633.47	638.32	639.64	
GROUND ELEVATION		636.80	631.30	635.70	637.00	
TOP OF CASING TO GR.		1.20	2.17	2.62	2.64	
TOP OF CASING TO WATER		64.42	60.17	65.50	66.00	
WATER ELEVATION		573.58	573.30	572.82	573.64	573.34
DIFFERENCE W/ MEAN WATER LEVEL		(0.247)	0.033	0.517	(0.303)	
TOP OF CASING TO PUMP		93.83	89.83	68.00	71.42	
TOP OF PUMP ELEVATION		544.17	543.64	570.32	568.22	
TOP OF CASING TO WELL BOTTOM		99.42	96.25	70.25	78.11	
BOTTOM OF WELL ELEVATION		538.58	537.22	568.07	561.53	

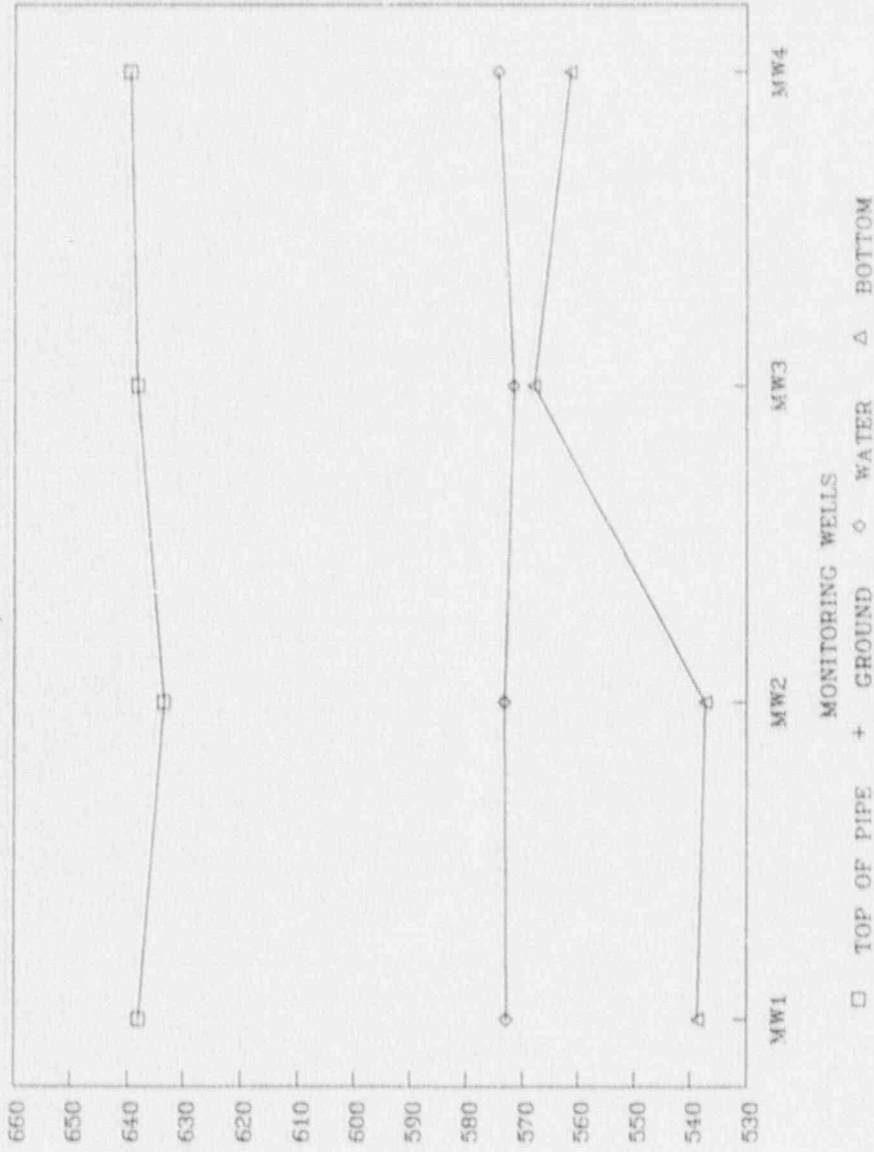
1/23/91 (5)

MEASUREMENTS OF WATER ELEVATION IN MONITORING WELLS
(CONTINUED)

DATE	WELL NUMBER	MW1	MW2	MW3	MW4	Average
6/22/90						
	TOP OF WELL CASING	638.00	633.47	638.32	639.64	
	GROUND ELEVATION	636.80	631.30	635.70	637.00	
	TOP OF CASING TO GR.	1.20	2.17	2.62	2.64	
	TOP OF CASING TO WATER	65.11	60.20	66.69	65.33	
	WATER ELEVATION	572.89	573.27	571.63	574.31	573.03
	DIFFERENCE W/ MEAN WATER LEVEL	0.135	(0.245)	1.395	(1.285)	
	TOP OF CASING TO PUMP	93.83	89.83	68.00	71.42	
	TOP OF PUMP ELEVATION	544.17	543.64	570.32	568.22	
	TOP OF CASING TO WELL BOTTOM	99.42	96.25	70.25	78.11	
	BOTTOM OF WELL ELEVATION	538.58	537.22	568.07	561.53	

WATER ELEVATIONS AT MW WELLS

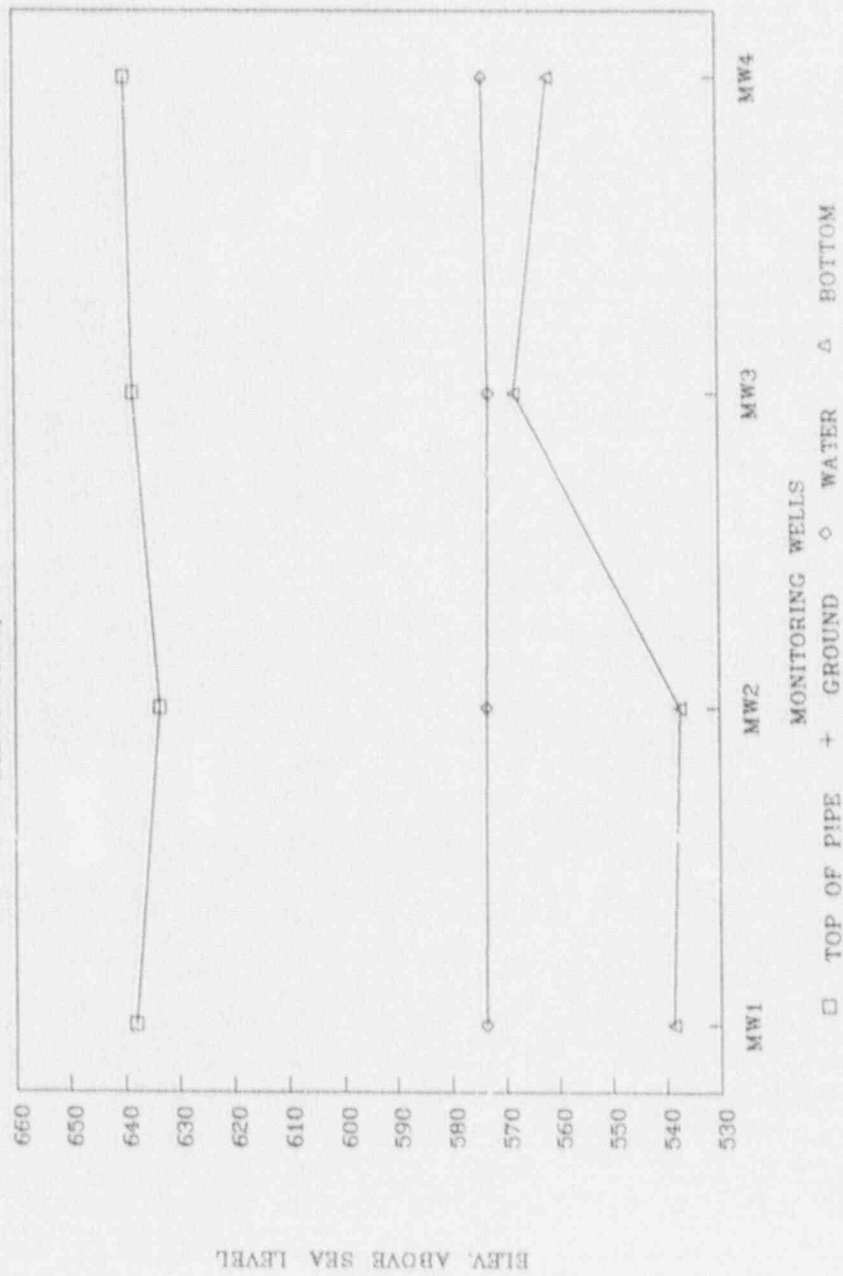
WOOD COUNTY, WY 22-JUN-90



ELEV. ABOVE SEA LEVEL

WATER ELEVATIONS AT MW WELLS

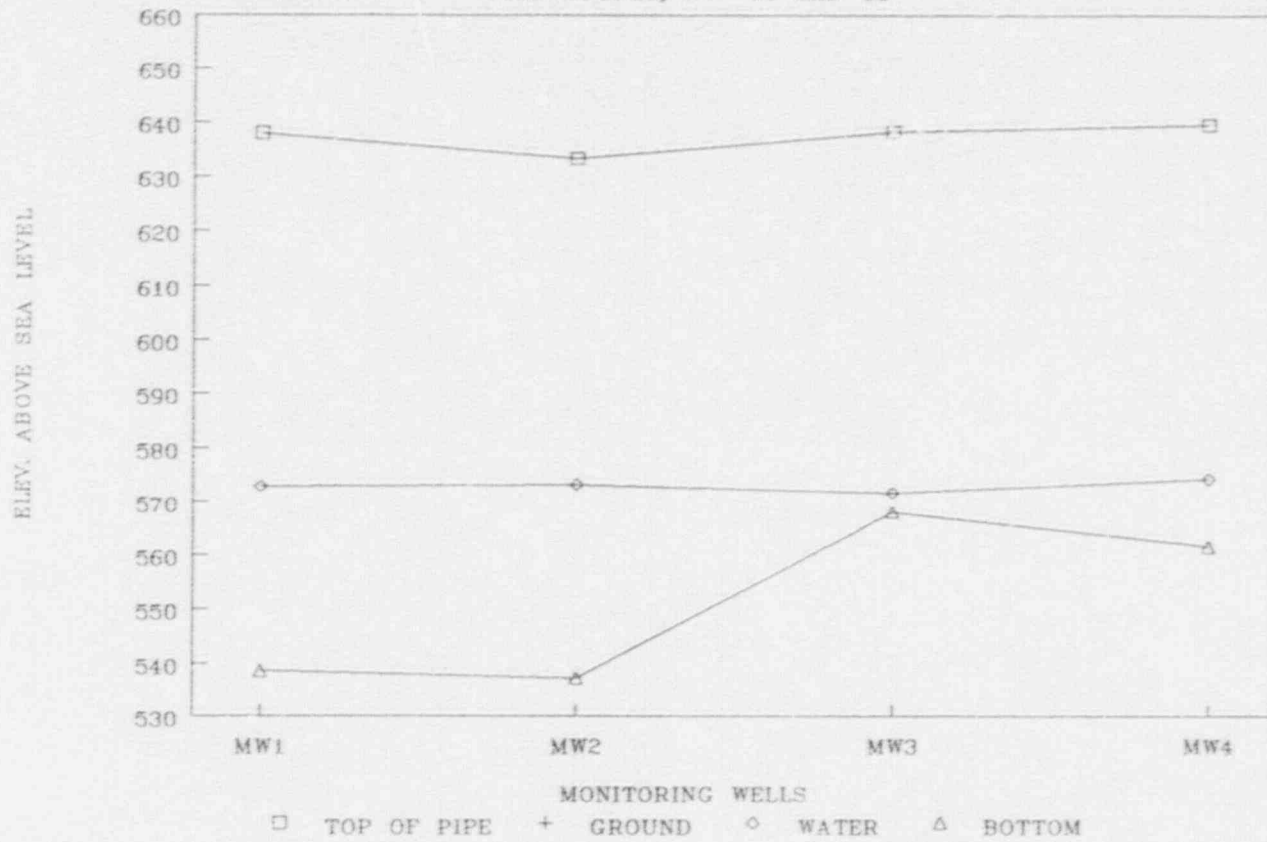
WOOD COUNTY, WV 26-OCT-90



ELEV. ABOVE SEA LEVEL

WATER ELEVATIONS AT MW WELLS

WOOD COUNTY, WV 18-JAN-91



1/23/91 (9)