

1R - 124

REPORTS

DATE:

10-29-1998



5309 Wurzbach, Suite 100
San Antonio, Texas 78238
(210) 680-3767
(210) 680-3763 FAX

October 29, 1998

Mr. Tony Savoie
TEXAS - NEW MEXICO PIPE LINE COMPANY
P. O. Box 1030
Jal, New Mexico 88252

RECEIVED

DEC 07 1998

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Re: Groundwater Monitoring Event
Texas - New Mexico Pipe Line Company
Monument Site No. 18
Monument, New Mexico
KEI Job No. 610057-6-18

Dear Mr. Savoie:

Transmitted with this letter is the ground water binder update packet for the third quarter of 1998 ground water monitoring event conducted at Monument Site No. 10, located near Monument, New Mexico. One copy has been submitted to OCD Hobbs and OCD Santa Fe.

The packet contains the following:

- Revised Table of Contents
- Updated gauging tables and general notes
- Updated ground water laboratory results tables
- Updated figures
- A copy of the laboratory ground water results and chain-of-custody documentation
- A dated "tab" for the new event

Please remove and replace the former Table of Contents and tables. Add the new dated tab and place the updated figures, laboratory reports, and chain-of-custody documentation behind this tab.

Please call me at (210) 680-3767 if you have any questions or comments.

Respectfully,

A handwritten signature in cursive script that reads 'Theresa Nix'.

Theresa Nix
Project Manager

Enclosure

cc: Marc Oler, Equilon
J. Michael Hawthorne, KEI
OCD Hobbs
OCD Santa Fe, William Olson ✓

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TABLE I

**SUMMARY OF GROUND WATER RESULTS - BTEX
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO**

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL- BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW18-2	05/02/97	0.010	ND	0.060	0.022	0.092
MW18-2	08/15/97	ND	ND	ND	ND	ND
MW18-2	11/02/97	0.002	ND	0.004	ND	0.006
MW18-2	02/19/98	0.003	ND	0.004	ND	0.007
MW18-2	05/12/98	0.006	0.004	0.005	ND	0.015
MW18-2	08/18/98	ND	ND	0.006	0.008	0.014
MW18-3	05/02/97	0.006	ND	ND	ND	0.006
MW18-5	09/19/97	ND	ND	ND	ND	ND
MW18-5	11/02/97	ND	ND	ND	ND	ND
MW18-5	02/19/98	ND	ND	ND	ND	ND
MW18-5	05/12/98	ND	ND	ND	ND	ND
MW18-5	08/18/98	ND	ND	ND	ND	ND
MW18-6	09/19/97	ND	ND	ND	ND	ND
MW18-6	11/02/97	ND	ND	ND	ND	ND
MW18-6	02/19/98	ND	ND	ND	ND	ND
MW18-6	05/12/98	ND	ND	ND	ND	ND
MW18-6	08/18/98	ND	ND	ND	ND	ND
MW18-7	08/18/98	ND	ND	0.001	0.005	0.006
MW18-8	08/18/98	ND	ND	ND	ND	ND

TABLE II

MONITORING WELL MW18-1

SUMMARY OF GROUND WATER MONITORING

TEXAS - NEW MEXICO PIPE LINE COMPANY

MONUMENT SITE NO. 18

LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,557.59	32.07	3525.52	3526.10	0.68
07/23/97	3,557.59	19.99	3537.60	—	—
08/15/97	3,557.59	33.86	3523.73	3525.96	2.62
10/23/97	3,558.71	34.47	3524.24	3527.04	3.18
11/02/97	3,558.71	34.55	3524.16	3527.02	3.24
12/09/97	3,558.71	34.02	3524.69	3526.99	2.61
12/17/97	3,558.71	33.97	3524.74	3527.00	2.56
01/02/98	3,558.71	31.37	3527.34	3528.53	1.35
01/30/98	3,558.71	33.90	3524.81	3527.03	2.52
02/06/98	3,558.71	33.76	3524.95	3527.03	2.36
02/13/98	3,558.71	33.66	3525.05	3527.03	2.25
02/21/98	3,558.71	33.62	3525.09	3527.03	2.20
02/25/98	3,558.71	33.40	3525.31	3527.05	1.97
03/04/98	3,558.71	33.36	3525.35	3527.04	1.92
03/13/98	3,558.71	33.51	3525.20	3527.02	2.07
03/17/98	3,558.71	33.11	3525.60	3527.05	1.65
03/24/98	3,558.71	33.20	3525.51	3526.95	1.64
03/31/98	3,558.71	33.33	3525.38	3527.03	1.87
04/07/98	3,558.71	33.11	3525.60	3527.03	1.62
04/17/98	3,558.71	33.52	3525.19	3527.02	2.08
04/21/98	3,558.71	33.16	3525.55	3527.02	1.67
04/28/98	3,558.71	33.11	3525.60	3527.02	1.61
05/06/98	3,558.71	33.27	3525.44	3527.02	1.79
05/12/98	3,558.71	33.30	3525.41	3527.02	1.83
05/18/98	3,558.71	33.25	3525.46	3526.99	1.74
05/27/98	3,558.71	33.59	3525.12	3527.01	2.14
06/01/98	3,558.71	33.28	3525.43	3527.00	1.78
06/08/98	3,558.71	33.46	3525.25	3526.96	1.94
06/17/98	3,558.71	33.71	3525.00	3526.93	2.19
06/23/98	3,558.71	33.62	3525.09	3526.93	2.09
07/01/98	3,558.71	33.76	3524.95	3526.92	2.24
07/16/98	3,558.71	34.05	3524.66	3526.90	2.54
07/21/98	3,558.71	33.86	3524.85	3526.88	2.30
07/29/98	3,558.71	33.96	3524.75	3526.86	2.40
08/05/98	3,558.71	33.98	3524.73	3526.82	2.37
08/12/98	3,558.71	34.01	3524.70	3526.81	2.39

TABLE II
(continued)

MONITORING WELL MW18-1
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/18/98	3,558.71	33.96	3524.75	3526.79	2.31
08/28/98	3,558.71	34.11	3524.60	3526.78	2.47
09/01/98	3,558.71	33.92	3524.79	3526.75	2.22
09/10/98	3,558.71	34.07	3524.64	3526.73	2.37
09/16/98	3,558.71	33.96	3524.75	3526.71	2.22
09/22/98	3,558.71	33.85	3524.86	3526.65	2.03
09/30/98	3,558.71	33.91	3524.80	3526.68	2.13

TABLE II
(continued)

**MONITORING WELL MW18-2
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO**

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,558.54	32.67	3525.87	---	---
07/23/97	3,558.54	21.60	3536.94	---	---
08/15/97	3,558.54	32.52	3526.02	---	---
10/23/97	3,559.64	32.60	3527.04	---	---
11/02/97	3,559.64	32.63	3527.01	---	---
12/03/97	3,559.64	32.63	3527.01	---	---
01/02/98	3,559.64	32.62	3527.02	---	---
02/06/98	3,559.64	32.61	3527.03	---	---
02/19/98	3,559.64	32.62	3527.02	---	---
03/04/98	3,559.64	32.59	3527.05	---	---
04/07/98	3,559.64	32.63	3527.01	---	---
05/12/98	3,559.64	32.56	3527.08	---	---
06/01/98	3,559.64	32.66	3526.98	---	---
07/01/98	3,559.64	32.74	3526.90	---	---
08/18/98	3,559.64	32.85	3526.79	---	---
09/01/98	3,559.64	32.92	3526.72	---	---

TABLE II
(continued)

**MONITORING WELL MW18-3
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO**

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,557.43	31.26	3526.17	3526.36	0.22
07/23/97	3,557.43	21.78	3535.65	3535.66	0.01
08/15/97	3,557.43	33.65	3523.78	3526.08	2.70
10/23/97	3,558.53	33.80	3524.73	3527.15	2.75
11/02/97	3,558.53	33.80	3524.73	3527.13	2.73
12/03/97	3,558.53	33.81	3524.72	3527.13	2.74
12/09/97	3,558.53	33.52	3525.01	3527.12	2.40
12/17/97	3,558.53	33.58	3524.95	3527.13	2.48
01/02/98	3,558.53	33.60	3524.93	3527.13	2.50
01/30/98	3,558.53	33.49	3525.04	3527.15	2.40
02/06/98	3,558.53	33.38	3525.15	3527.14	2.26
02/13/98	3,558.53	33.36	3525.17	3527.14	2.24
02/21/98	3,558.53	33.35	3525.18	3527.22	2.32
02/25/98	3,558.53	33.26	3525.27	3527.15	2.14
03/04/98	3,558.53	33.32	3525.21	3527.15	2.21
03/13/98	3,558.53	33.41	3525.12	3527.13	2.29
03/17/98	3,558.53	33.18	3525.35	3527.16	2.06
03/24/98	3,558.53	33.24	3525.29	3527.17	2.14
03/31/98	3,558.53	33.38	3525.15	3527.16	2.28
04/07/98	3,558.53	33.37	3525.16	3527.13	2.24
04/17/98	3,558.53	33.47	3525.06	3527.14	2.36
04/21/98	3,558.53	33.21	3525.32	3527.13	2.06
04/28/98	3,558.53	33.37	3525.16	3527.13	2.24
05/06/98	3,558.53	33.38	3525.15	3527.13	2.25
05/12/98	3,558.53	33.34	3525.19	3527.12	2.20
05/18/98	3,558.53	33.33	3525.20	3527.11	2.17
05/27/98	3,558.53	33.48	3525.05	3527.11	2.34
06/01/98	3,558.53	33.28	3525.25	3527.11	2.12
06/08/98	3,558.53	33.51	3525.02	3527.08	2.34
06/17/98	3,558.53	33.62	3524.91	3527.05	2.43
06/23/98	3,558.53	33.59	3524.94	3527.03	2.38
07/01/98	3,558.53	33.61	3524.92	3527.04	2.41
07/16/98	3,558.53	33.70	3524.83	3526.99	2.46
07/21/98	3,558.53	33.57	3524.96	3526.97	2.29

TABLE II
(continued)

MONITORING WELL MW18-3
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
07/29/98	3,558.53	33.68	3524.85	3526.96	2.40
08/05/98	3,558.53	33.66	3524.87	3526.93	2.34
08/12/98	3,558.53	33.70	3524.83	3526.91	2.37
08/18/98	3,558.53	33.67	3524.86	3526.91	2.33
08/28/98	3,558.53	33.79	3524.74	3526.87	2.42
09/01/98	3,558.53	33.59	3524.94	3526.86	2.18
09/10/98	3,558.53	33.80	3524.73	3526.84	2.40
09/16/98	3,558.53	33.72	3524.81	3526.83	2.30
09/22/98	3,558.53	33.58	3524.95	3526.81	2.11
09/30/98	3,558.53	33.79	3524.74	3526.80	2.34

TABLE II
(continued)

MONITORING WELL MW18-4
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
09/19/97	3,558.14	30.90	3527.24	3527.25	0.01
10/23/97	3,558.14	30.92	3527.22	---	---
11/02/97	3,558.14	30.94	3527.20	3527.21	0.01
12/03/97	3,558.14	30.95	3527.19	---	Sheen
12/09/97	3,558.14	30.95	3527.19	---	Sheen
12/17/97	3,558.14	30.94	3527.20	---	Sheen
01/02/98	3,558.14	30.96	3527.18	---	Sheen
01/30/98	3,558.14	30.94	3527.20	---	Sheen
02/06/98	3,558.14	30.95	3527.19	---	---
02/13/98	3,558.14	30.95	3527.19	---	Sheen
02/19/98	3,558.14	30.93	3527.21	---	Sheen
02/25/98	3,558.14	30.93	3527.21	---	Sheen
03/04/98	3,558.14	30.94	3527.20	---	Sheen
03/13/98	3,558.14	30.96	3527.18	---	Sheen
03/17/98	3,558.14	30.93	3527.21	---	Sheen
03/24/98	3,558.14	30.94	3527.20	---	Sheen
03/31/98	3,558.14	30.94	3527.20	---	Sheen
04/07/98	3,558.14	30.95	3527.19	---	Sheen
04/17/98	3,558.14	30.91	3527.23	---	Sheen
04/21/98	3,558.14	30.96	3527.18	---	Sheen
04/28/98	3,558.14	30.96	3527.18	---	Sheen
05/06/98	3,558.14	30.96	3527.18	---	Sheen
05/12/98	3,558.14	30.96	3527.18	---	Sheen
05/18/98	3,558.14	31.00	3527.14	---	Sheen
05/27/98	3,558.14	30.98	3527.16	---	Sheen
06/01/98	3,558.14	30.99	3527.15	---	Sheen
06/08/98	3,558.14	31.02	3527.12	---	Sheen
06/17/98	3,558.14	31.05	3527.09	---	Sheen
06/23/98	3,558.14	31.06	3527.08	---	Sheen
07/01/98	3,558.14	31.06	3527.08	---	Sheen
07/16/98	3,558.14	31.10	3527.04	---	Sheen
07/21/98	3,558.14	31.12	3527.02	---	Sheen
07/29/98	3,558.14	31.14	3527.00	---	Sheen
08/05/98	3,558.14	31.17	3526.97	---	Sheen

TABLE II
(continued)

MONITORING WELL MW18-4
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/12/98	3,558.14	31.19	3526.95	---	Sheen
08/18/98	3,558.14	31.21	3526.93	---	Sheen
08/28/98	3,558.14	31.22	3526.92	---	Sheen
09/01/98	3,558.14	31.25	3526.89	---	Sheen
09/16/98	3,558.14	31.28	3526.86	---	Sheen
09/22/98	3,558.14	31.30	3526.84	---	Sheen

TABLE II
(continued)

MONITORING WELL MW18-5
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
09/19/97	3,560.07	33.19	3526.88	---	---
10/23/97	3,560.07	33.20	3526.87	---	---
11/02/97	3,560.07	33.23	3526.84	---	---
12/03/97	3,560.07	33.23	3526.84	---	---
01/02/98	3,560.07	33.23	3526.84	---	---
02/06/98	3,560.07	33.22	3526.85	---	---
02/19/98	3,560.07	33.22	3526.85	---	---
03/04/98	3,560.07	33.20	3526.87	---	---
04/07/98	3,560.07	33.23	3526.84	---	---
05/12/98	3,560.07	33.16	3526.91	---	---
06/01/98	3,560.07	33.26	3526.81	---	---
07/01/98	3,560.07	33.34	3526.73	---	---
08/18/98	3,560.07	33.40	3526.67	---	---
09/01/98	3,560.07	33.51	3526.56	---	---

TABLE II
(continued)

**MONITORING WELL MW18-6
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE 18
LEA COUNTY, NEW MEXICO**

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
09/19/97	3,557.64	30.41	3527.23	---	---
10/23/97	3,557.64	30.44	3527.20	---	---
11/02/97	3,557.64	30.46	3527.18	---	---
12/03/97	3,557.64	30.47	3527.17	---	---
01/02/98	3,557.64	30.47	3527.17	---	---
02/06/98	3,557.64	30.45	3527.19	---	---
02/19/98	3,557.64	30.45	3527.19	---	---
03/04/98	3,557.64	30.43	3527.21	---	---
04/07/98	3,557.64	30.46	3527.18	---	---
05/12/98	3,557.64	30.48	3527.16	---	---
06/01/98	3,557.64	30.49	3527.15	---	---
07/01/98	3,557.64	30.57	3527.07	---	---
08/18/98	3,557.64	30.70	3526.94	---	---
09/01/98	3,557.64	30.76	3526.88	---	---

TABLE II
(continued)

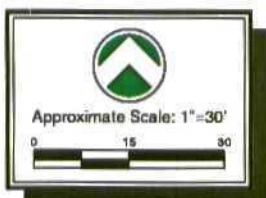
MONITORING WELL MW18-7
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/18/98	3,558.65	31.63	3527.02	---	---
09/01/98	3,558.65	31.68	3526.97	---	---

TABLE II
(continued)

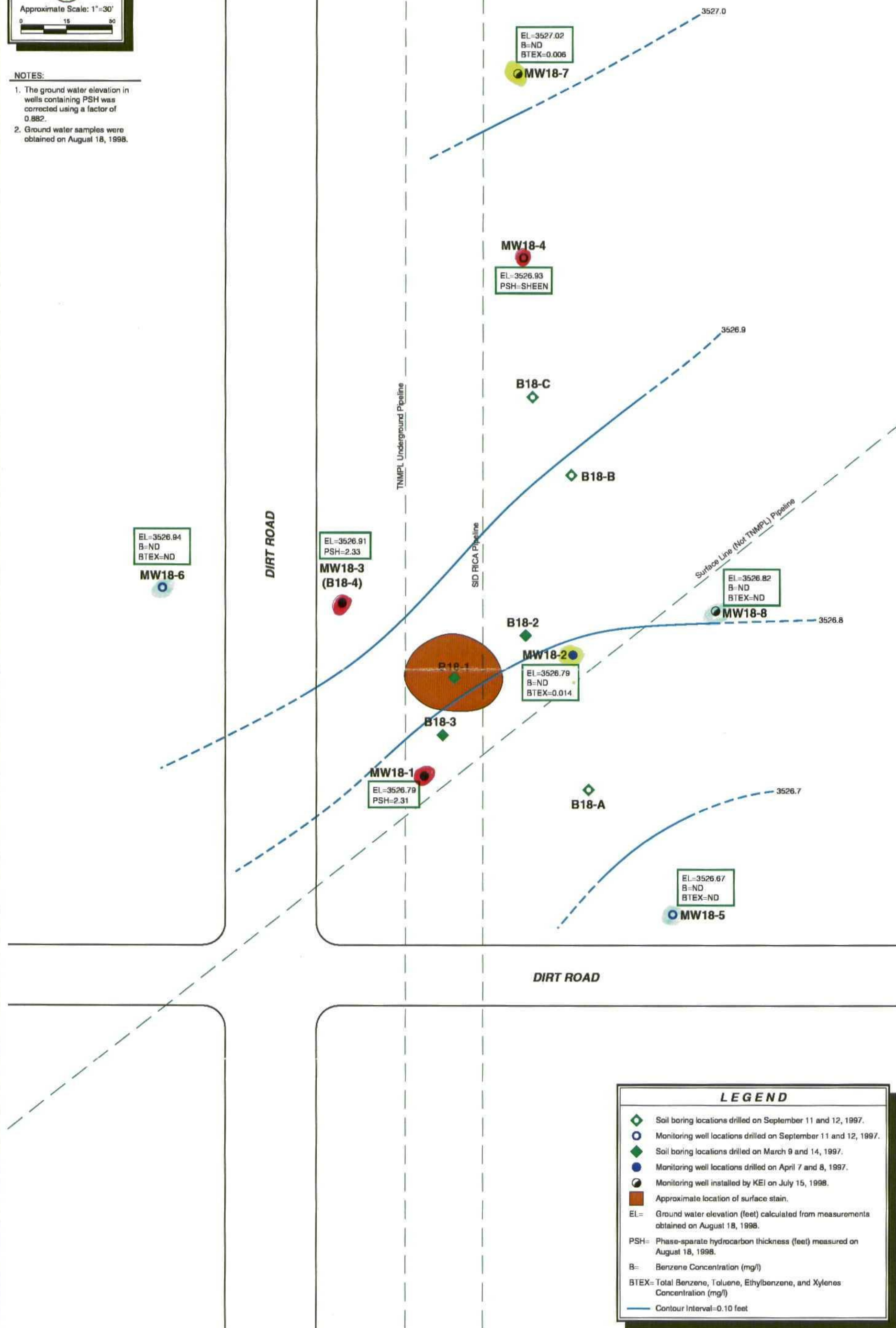
MONITORING WELL MW18-8
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE 18
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/18/98	3,559.30	32.48	3526.82	---	---
09/01/98	3,559.30	32.61	3526.69	---	---



NOTES:

1. The ground water elevation in wells containing PSH was corrected using a factor of 0.882.
2. Ground water samples were obtained on August 18, 1998.



08/09/98-PM 03:54:07 PROJECTS\TNPPL\US10057\SITE\6\MONTHLY\GW-AUG98

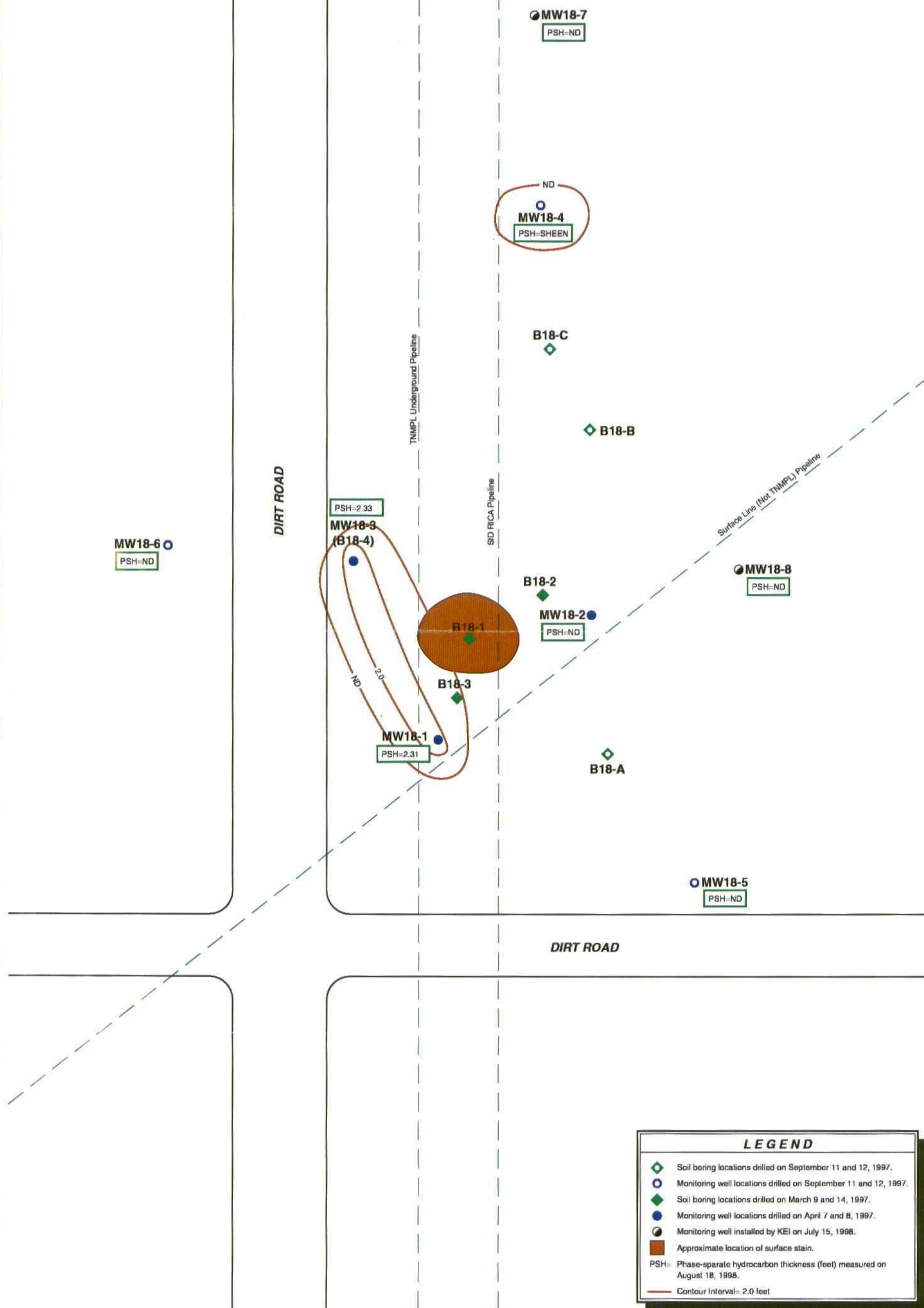


GROUND WATER CONTOURS / CONCENTRATIONS MAP - AUGUST 1998

TEXAS - NEW MEXICO PIPE LINE CO. MONUMENT SITE NO. 18 LEA COUNTY, NEW MEXICO

610057

FIG 1



LEGEND	
	Soil boring locations drilled on September 11 and 12, 1997.
	Monitoring well locations drilled on September 11 and 12, 1997.
	Soil boring locations drilled on March 9 and 14, 1997.
	Monitoring well locations drilled on April 7 and 8, 1997.
	Monitoring well installed by KEI on July 15, 1998.
	Approximate location of surface stain.
PSH= Phase-separate hydrocarbon thickness (feet) measured on August 18, 1998.	
— Contour Interval= 2.0 feet	

09/16/98-JM: CUSA DTP PROJECT 18 TNMPL SITE (MONTHLY) (CWA-AUG98)

FIGURE 3
AVERAGE GROUND WATER DATA

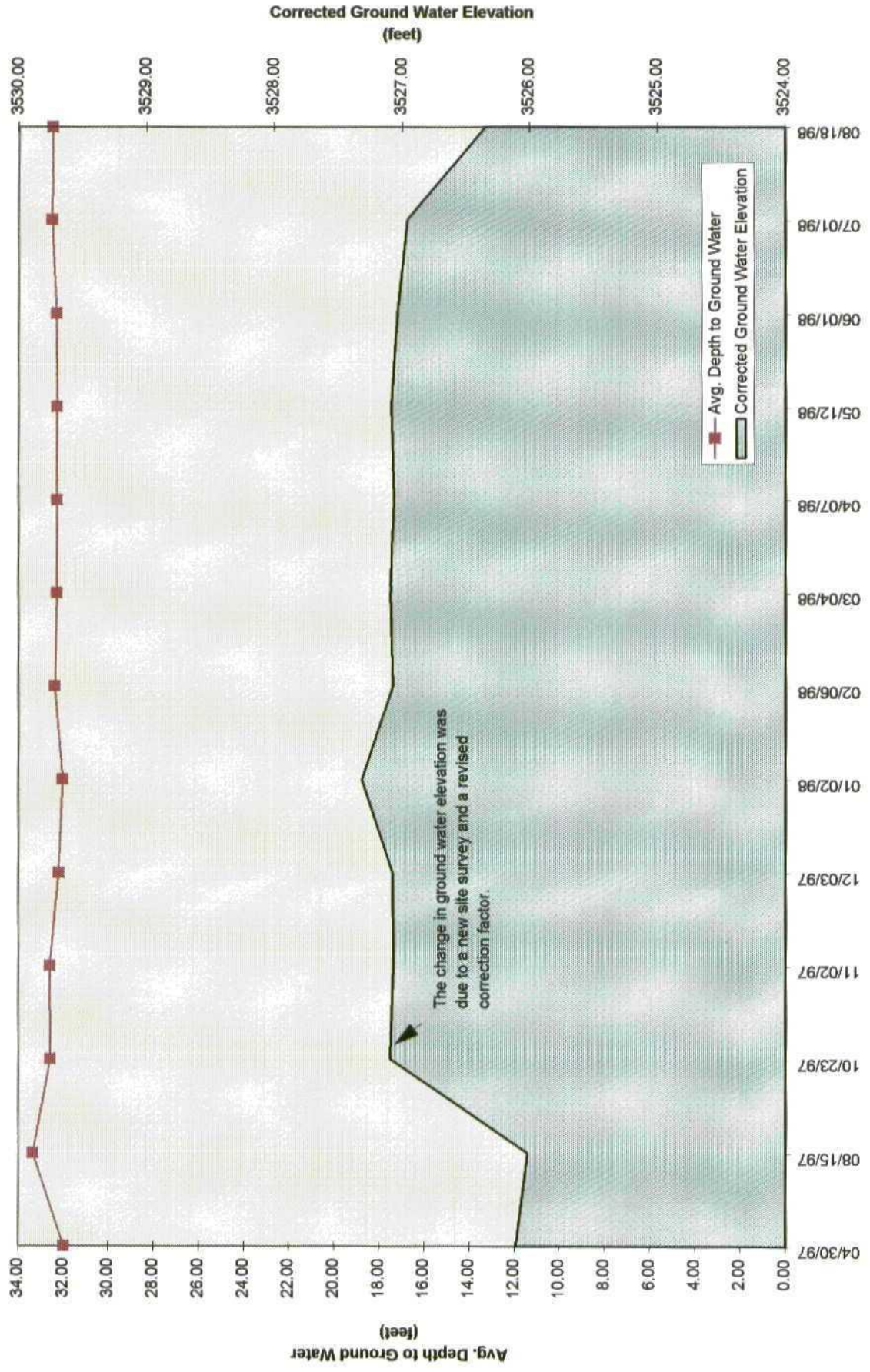


FIGURE 4
DISSOLVED PHASE CONCENTRATIONS

