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REPORTS

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INVESTIGATION AND ABATEMENT PROGRAM REPORT TEXAS-NEW MEXICO PIPELINE MONUMENT, NEW MEXICO 27 April, 1987

Prepared for:

Mr. Bernie Lednicky
Manager,
Texas-New Mexico Pipeline
Hobbs, New Mexico

Prepared by:

James E. Goetz
District Manager
Groundwater Technology, Inc.
Englewood, Colorado

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INTRODUCTION

This report presents the results of Groundwater Technology Inc's. (GTI) continued monitoring of the Monument Field assessment/abatement program for the subsurface loss of crude oil. This report is prepared in part from information supplied to GTI by Mr. Bernie Lednicky, Texas-New Mexico Pipeline (TNM), Hobbs, New Mexico. Other sources of information include the two previous reports prepared by GTI for Texas-New Mexico Pipeline plus other published and non-published public information. This report will address:

* an estimate of the total crude oil loss from the pipeline break;

* an estimate of total product recovered to date;

* operational changes for either recovery or monitoring of subsurface hydrocarbons;

* weekly measurements of depth to liquid and product thickness;

* chemical analyses of water samples from the site;

* any other physical or chemical information relating to the contamination;

* other phase separated hydrocarbons which exist in the area attributable to other causes;

* impact of continued cleanup on other phase separated hydrocarbons;

* effects of continued aquifer restoration with regard to improved water quality and with respect to the apparent existence of other contamination.

Texas-New Mexico Pipeline personnel have supplied GTI with their field records of liquid level measurements taken since April, 1985. A tabulation of all the data can be found in Appendix I.

GTI PREVIOUS ACTIVITY

In late September, 1984, Groundwater Technology, Inc. (GTI) was notified of a pipeline loss of crude oil in the Monument Field (Figure 1). GTI's investigation and remedial response resulted in the installation of monitor wells (MW) and recovery wells (RW) (Figure 2, Site Map), and was described in the report entitled "Preliminary Hydrogeological Investigation and Recovery Efforts Report" (December, 1984). One of the two recovery wells was created in an existing municipal drinking water well (RW-1) for the City of Monument. Recovery equipment was also temporarily installed in existing MW-11 (Figure 2, Site Map with well locations).

In the December, 1984 GTI report, we first noted that more than one source for subsurface accumulation of phase-separated hydrocarbons existed in the area. Figure 3 shows product thickness at the site for 15 November, 1984, when two distinct plumes were present. Further investigation by GTI and Texas-New Mexico Pipeline in October/November, 1984, concluded that the two plumes of free product were unrelated (GTI, December, 1984).

Additional work was performed by GTI in December, 1984 and January, 1985. This work resulted in the April 16, 1985 report entitled "Further Investigation And Abatement Report". Some of the actions taken included the installation of a permanent recovery well #2 (RW-2) next to the temporary recovery well MW-11, and additional monitor well installations.

GTI confirmed the presence of two distinct plumes of subsurface phase separated hydrocarbons. Both GTI reports concluded the plumes were separate but noted the potential coalescing of the two plumes.

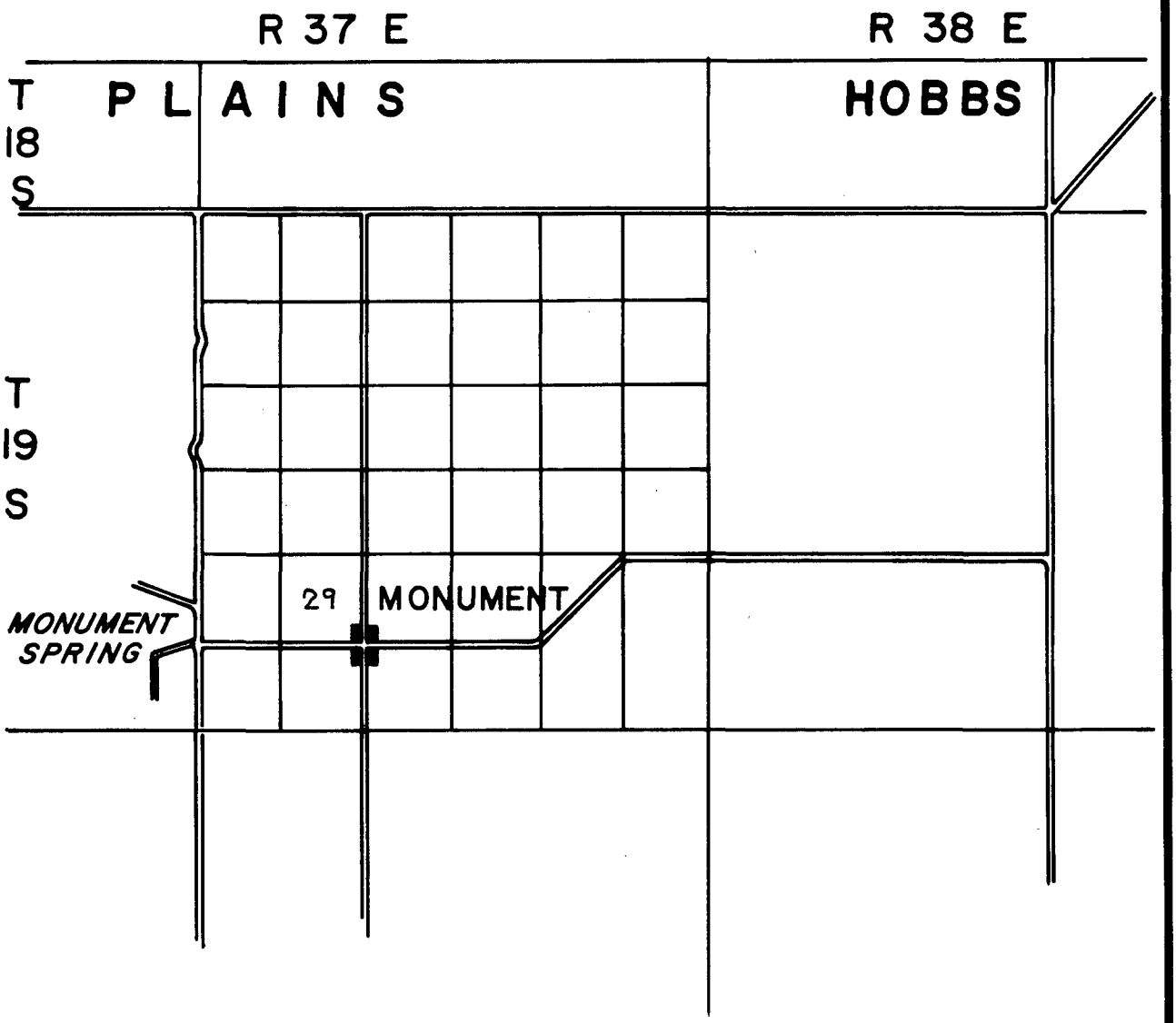
HISTORICAL PERSPECTIVE OF THE AREA

Historical information relating to the groundwater quality for the Monument area was obtained from the following information sources;

* USGS Ground-Water Report #6 entitled "Geology and Ground-Water Conditions in Southern Lea County, New Mexico" (Nicholson, 1961);

* Engineering and Feasibility Report for the Monument Water Users Cooperative (2 January, 1987);

* previous GTI reports.



LOCATION MAP

N

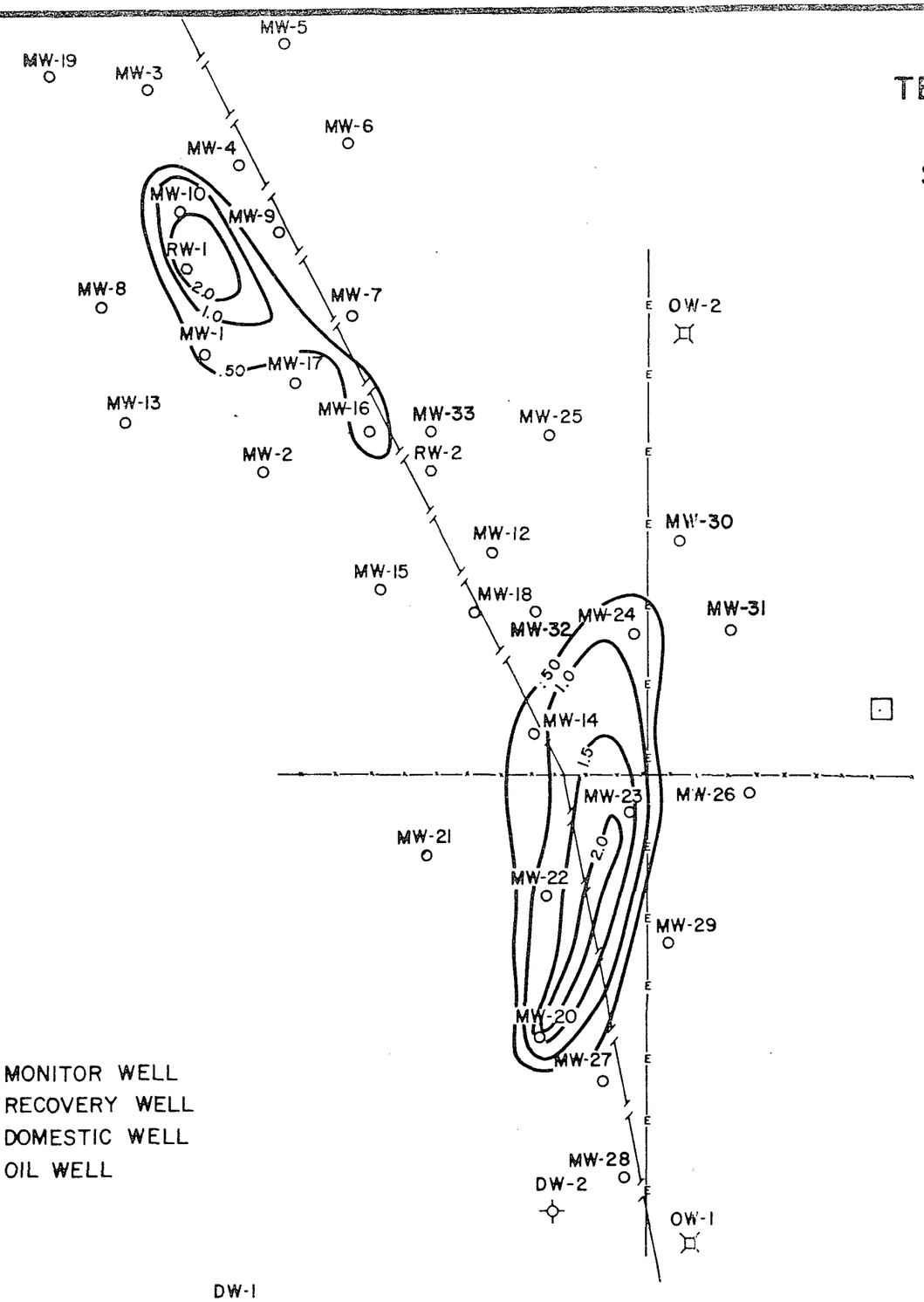
NO SCALE

Figure 1

GROUNDWATER TECHNOLOGY
CONSULTING GROUNDWATER GEOLOGISTS

TEXAS-NEW MEXICO PIPELINE CO.
MONUMENT TEST WELLS
SEC. 29 T 19 S, R 37 E, M.M.P.M.

PRODUCT THICKNESS MAP
15 NOVEMBER 1984



LEGEND

- ○ MW - MONITOR WELL
- ⬡ RW - RECOVERY WELL
- ⊹ DW - DOMESTIC WELL
- ⌑ OW - OIL WELL

N

NO SCALE

FIGURE 3.

GROUNDWATER TECHNOLOGY
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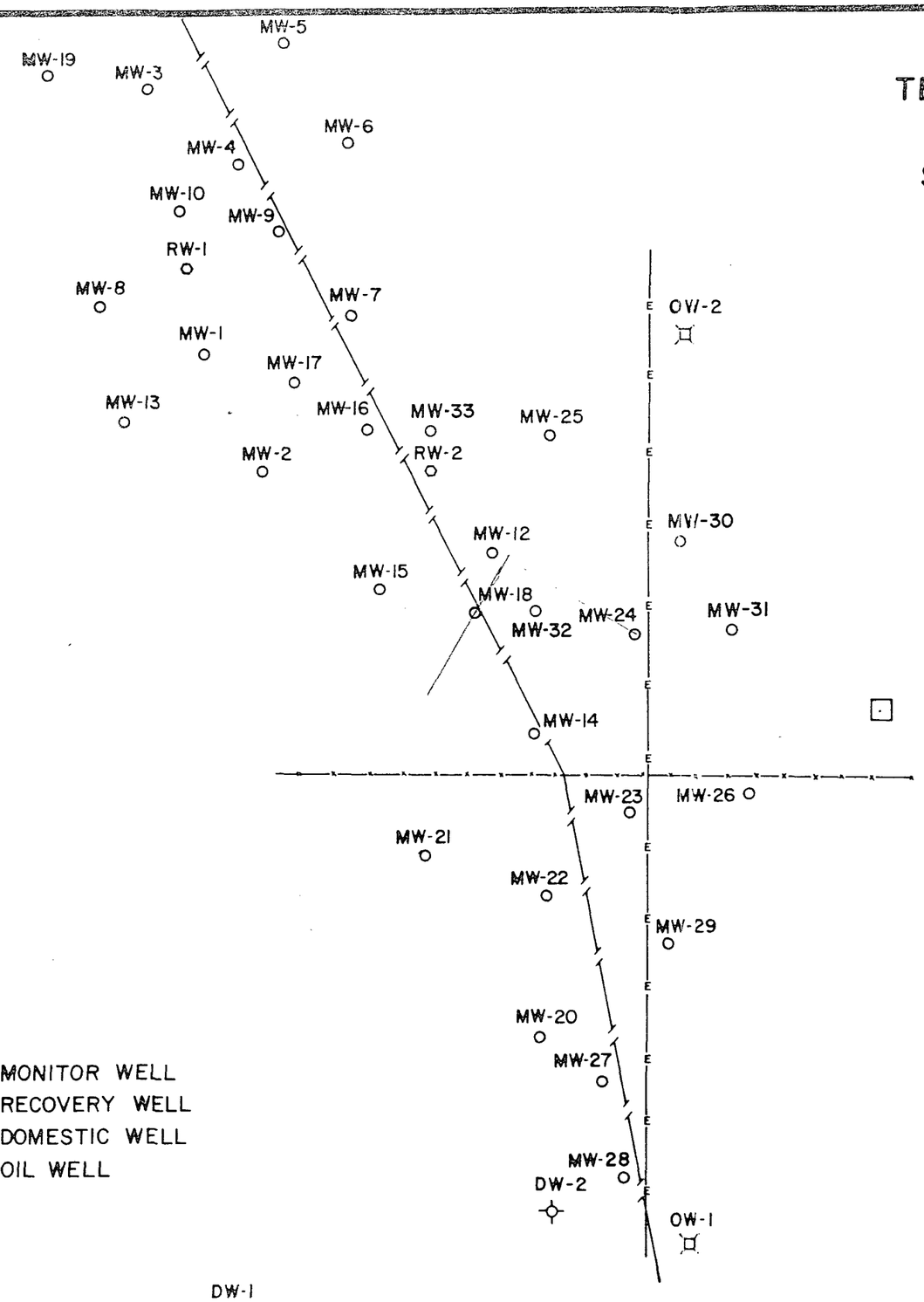
TEXAS-NEW MEXICO PIPELINE CO.
MONUMENT TEST WELLS
SEC. 29 T 19 S, R 37 E, M.M.P.M.

SITE MAP



LEGEND

- ○ MW - MONITOR WELL
- ⬡ RW - RECOVERY WELL
- DW - DOMESTIC WELL
- OW - OIL WELL

N

NO SCALE

FIGURE 2.

GROUNDWATER TECHNOLOGY
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A partial summary (by GTI) from the previously referenced "Ground-Water Report #6" (Nicholson, 1961) states that the aquifer beneath the High Plains province is recharged largely by infiltration, with most groundwater withdrawal coming from pumping wells. The net effect is a depletion of storage in the aquifer in the southern part of Lea County because the low precipitation rates are unable to recharge the aquifer. In the Monument area water is obtained from private shallow wells. As reported in 1961 the area wells are susceptible to contamination due to proximity to oil production wells. "The wells in the area are adequate, but there is danger of contamination" (Nicholson, 1961, pg. 69). Additional references are made with regard to brine production along with the recovery of oil from the wells in the Monument area. The report notes (Nicholson, 1961, pg.71):

> "Most of the oil wells in southern Lea County produce brine with the oil. (Data on brine production have been obtained from the annual reports of the New Mexico Oil Conservation Commission.) The quantity of brine produced exceeds the quantity of oil recovered.
>
> "The customary method of disposing of the brine is to discharge it into evaporation pits at or near the well sites. The evaporation pits are unlined dug pits, which are usually constructed by bulldozing a depression in the ground and surrounding it with an earth embankment (see Fig. 24)."

In many cases one pit will contain brine from more than one well. Through January 1, 1956, brine production for southern Lea County was 577 million barrels compared to 559 million barrels of oil produced to that date (Nicholson, 1961).

Organic constituents of the brines have been recently investigated by the United States Environmental Protection Agency (USEPA) (Pers. Comm. Mr. D. Boyer, December, 1986). The study was conducted less than a mile west of Monument and analyzed production brines for dissolved hydrocarbon concentrations. The USEPA analysis of production brine from a

City Service well located in T19S, R37E, S30, SW1/4, yielded the following results:

(B = benzene, T = toluene, EB = ethyl benzene)
(concentrations in parts per billion (ppb)).

Date	B	T	EB	Total Xylene
27June86	34	68	46	82
29Aug86(1)	27	69	ND*	ND
29Aug86(2)	ND	68	52	96

* ND = below detection limits
(Per teleconference with Mr. David G. Boyer, Oil Conservation Division, 18 Feb. 1987)

Many other organic compounds were present but were not identified because of the nature of the analysis requested.

The above data imply that the brine pits may be responsible for hydrocarbon contamination of the shallow groundwater aquifer. Some of the hydrocarbons will adsorb to the soil and rock matrix during percolation, to be released later by fluctuations in the groundwater table or percolation of rain water. Additional hydrocarbon contamination may also occur after inadvertent release of crude oil into the brine pit. If sufficient oil was released with the brine water a free floating layer of oil can develop beneath the brine pits and potentially impact the nearby water wells.

Unlined brine evaporation pits have had proven deleterious effects on shallow aquifer groundwater systems because of infiltration via percolation of the dissolved components, including dissolved hydrocarbons in the brine, to the water table. Even though evaporation eliminates some of the water in the brine pit, the water retains a high concentration of salts plus some dissolved hydrocarbons, with the potential for contaminating the aquifer if the pit leaks. Because early pits were unlined their contribution to degradation of groundwater quality would have been continuous for most of the pits' existence.

Report #6 summarized some of the above information in its Figure 25 entitled "Oil-field brine production in Southern Lea County, N. Mex., 1952" (Please see Figure 4). Figure 4 shows Monument to be on the edge of a plume of brine contaminated

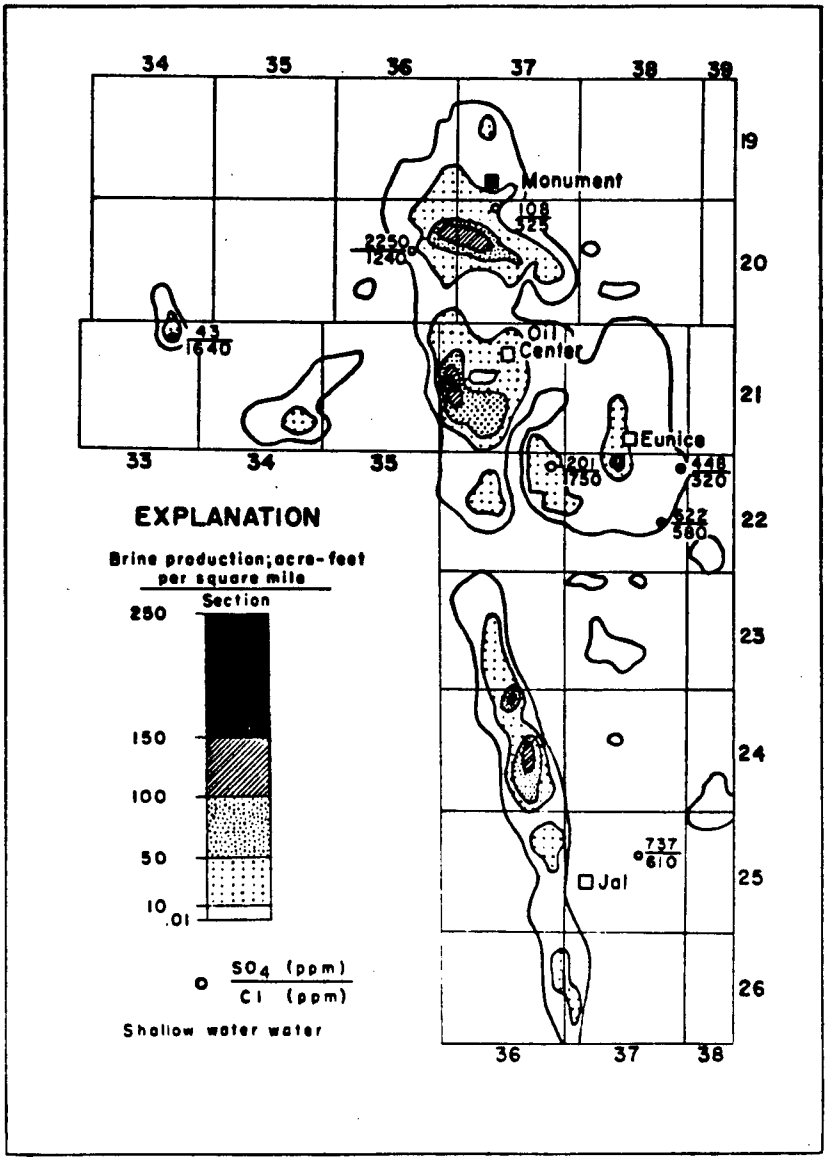


Figure 25

OIL-FIELD BRINE PRODUCTION IN SOUTHERN LEA COUNTY, N. MEX., 1952

Showing locations of selected water wells that have been contaminated by brine. Upper figure adjacent to well symbol is sulfate concentration; lower figure is chloride concentration.

Figure 4

GROUNDWATER TECHNOLOGY
CONSULTING GROUNDWATER GEOLOGISTS

shallow groundwater. The well shown, approximately 1 mile south of Monument, was drilled to a depth of 40 feet and was sampled for this study. The data indicate that the Monument area has been subjected to shallow groundwater quality degradation due to the impact of brine infiltration and other oil production activity.

A report titled "New Water Supply to Replace Contaminated Wells" was prepared for the Monument Water User's Cooperative, Monument, New Mexico, by Dennis Engineering Company, submitted January 2, 1987 to the Cooperative. In this report the authors obtained a more recent map (Figure 5) from the New Mexico State Engineers Office showing "Areas of known groundwater contamination". The contamination consists of dissolved hydrocarbons and chlorides. Both Figures 4 and 5, from two separate sources, show similarities in subsurface groundwater contamination in the area of Monument.

INVESTIGATIVE PROCEDURES

WATER SAMPLING AND ANALYSES

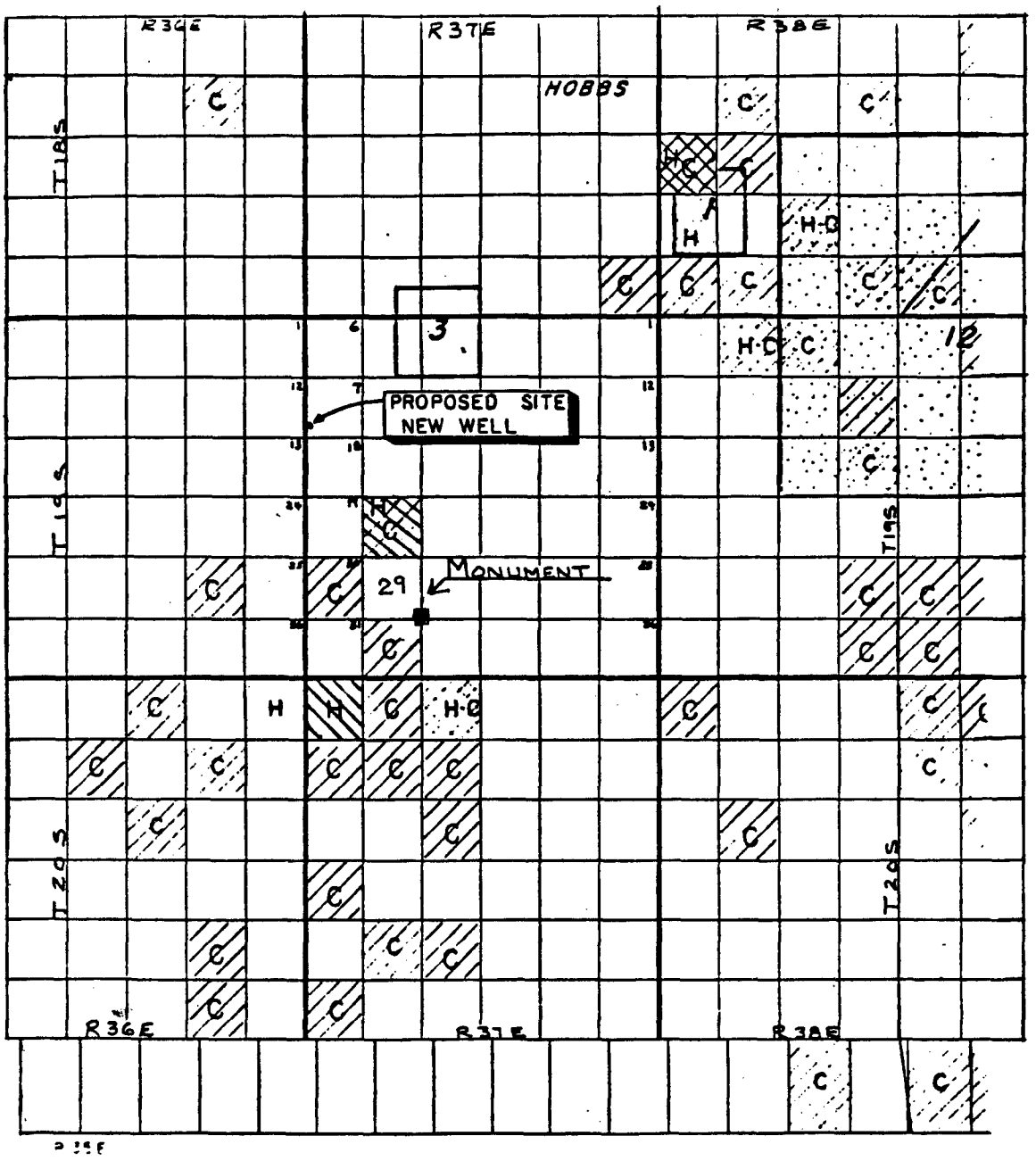
Water samples were collected by TNM personnel and analyzed by Groundwater Technology Environmental Laboratory (GTEL). Water samples designated "NW" and "MCW" contained 2 parts per billion (ppb) and 5 ppb Benzene respectively. Toluene, Ethyl Benzene and Xylene were all below detection limits. The complete laboratory report of analysis is contained in Appendix II.

Analyses for dissolved hydrocarbons were conducted on samples collected during October-December, 1984 and January, 1985, from monitor wells which did not contain phase-separated hydrocarbons. Results of the analyses were discussed in the previous GTI reports which noted that the dissolved hydrocarbon plume is slightly larger than the phase-separated product plume. The results of the analyses can be found in Appendix II.

GROUNDWATER MONITORING

Liquid level measurements of the depth to groundwater and depth to product were taken by Texas-New Mexico Pipeline personnel. The organized data can be found in Appendix I of this report.

The liquid level data show a steady decline of product thickness over the entire study area for the last twelve months. The data indicate the steady decline of measurable product to



AREAS OF KNOWN GROUNDWATER CONTAMINATION
STATE ENGINEERS OFFICE
NOV. 7, 1985
C = CHLORIDES H = HYDROCARBONS
SCALE: 1" = 2 MI.

Figure 5

GROUNDWATER TECHNOLOGY
CONSULTING GROUNDWATER GEOLOGISTS

coincide with product recovery. Figures 6 and 7 are hydrographs with product thicknesses for recovery wells RW-1 and RW-2.

As previously noted two distinct plumes were evident on 15 November, 1984 (Fig. 3). On 3 October, 1985 the two product plumes were still evident. Maximum product thicknesses of the 18 wells reporting product were approximately 3-4 feet, mostly near the recovery wells and MW 20 in the southern plume. By 3 October, 1986 the maximum reported product thickness was 0.11 feet in RW-2, 0.08 feet in RW-1, and 0.02 feet in the three other wells containing product. The remaining 30 monitor wells had no product accumulations.

PRODUCT RECOVERY OPERATIONS

Automatic phase-separated hydrocarbon recovery continued until 8 October, 1986, in recovery well RW-1 and until 4 April, 1986, in RW-2. Water was pumped and the cone of depression maintained in RW-2 until 8 October, 1986. The total product recovered is 10,344 gallons for RW-1 and 8,578 gallons for RW-2. A summary of recovered product data for recovery wells 1 and 2 can be found in Appendix III.

A conservative estimate was made in the GTI report of December, 1984 that 42,000 gallons of product were removed in late 1984 when soil saturated with product was excavated and removed from the site immediately following the pipeline break. Total estimated product recovered to date by soil removal and combined recovery well operations is 60,922 gallons. Total product lost due to the pipeline break cannot be determined (personnel communication, 18 February, 1987 with Texas-New Mexico Pipeline).

Cessation of product recovery operations was authorized by Mr. David Boyer, Environmental Bureau Chief of the Energy and Minerals Department, OCD, in a letter to TNM, 3 October, 1986. Permission was given to remove controls, pumps, and other similar equipment which could be vandalized if left on site.

Hydrographs with product thicknesses were plotted for recovery wells RW-1 (Fig. 6) and RW-2 (Fig. 7) which show the decline in product thickness due to product recovery. Cumulative product recovery from October, 1984 (RW-1) and January, 1985 (RW-2) to shut down for both wells can be found in Figure 8. The recovery curves for both RW-1 and RW-2 show typical recovery characteristics with the majority of the product recovered immediately following the activation of the recovery systems. More than 93% of the total product recovered occurred in the first eight months of operation for both wells.

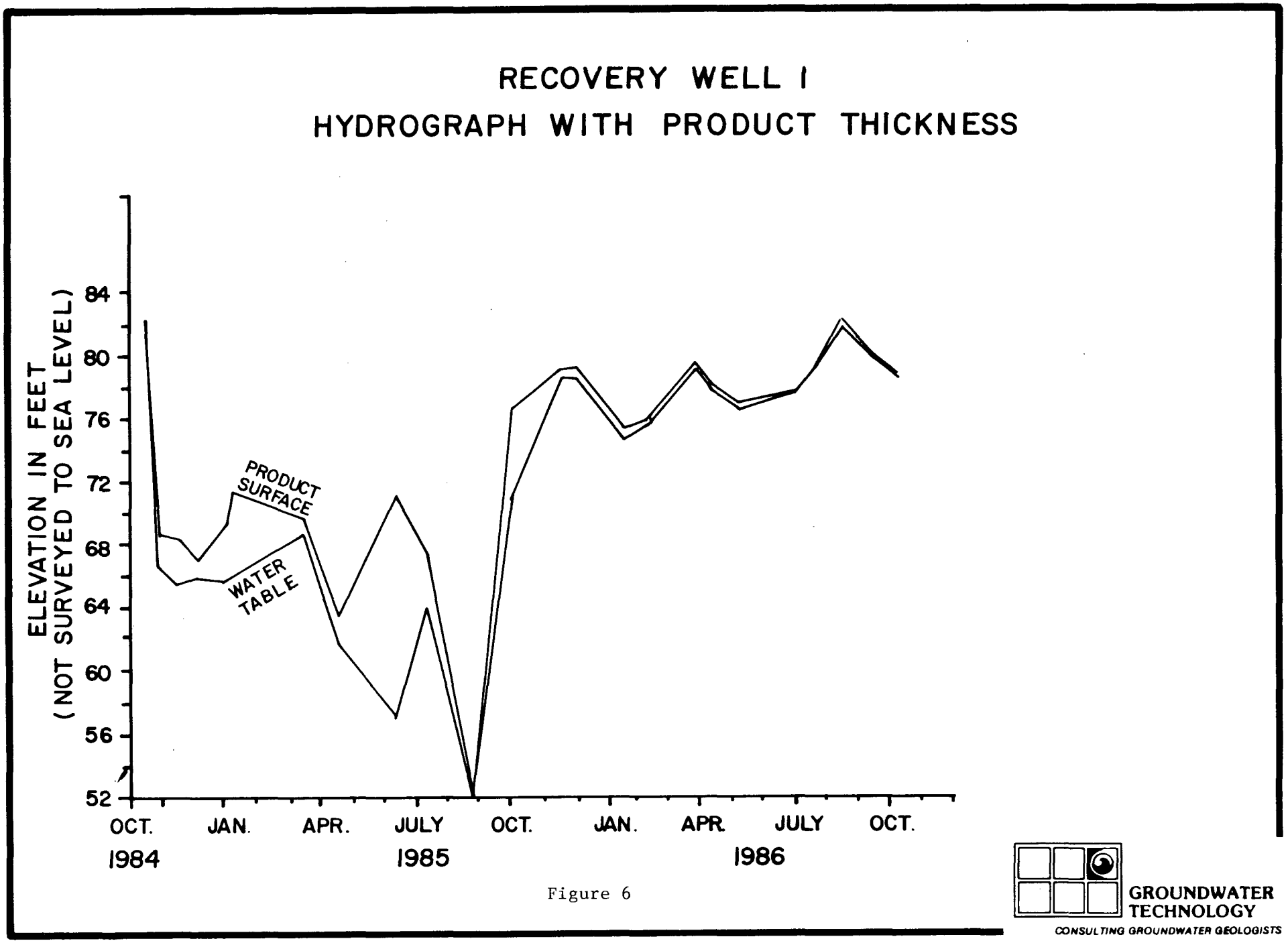


Figure 6

GROUNDWATER TECHNOLOGY
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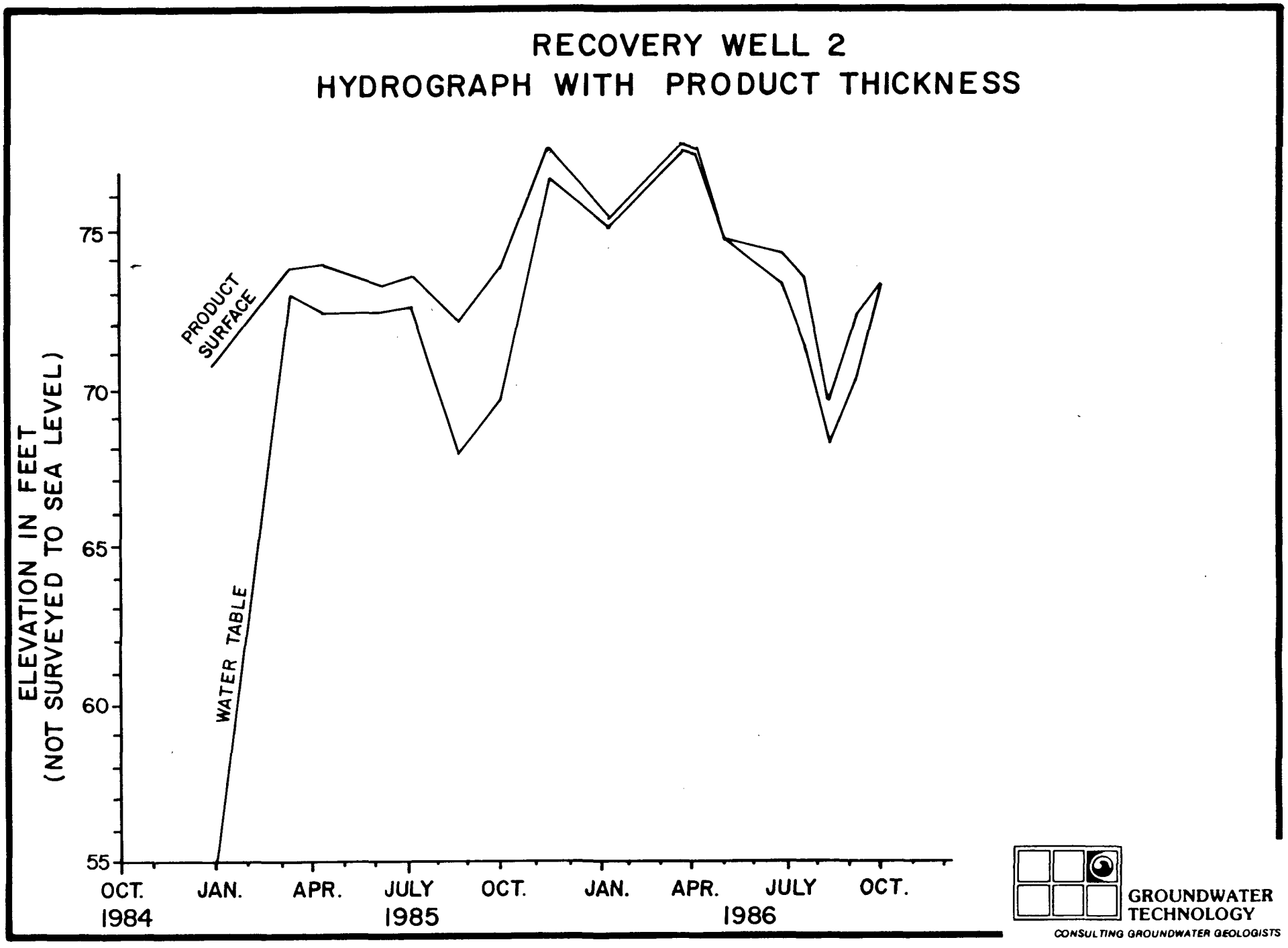
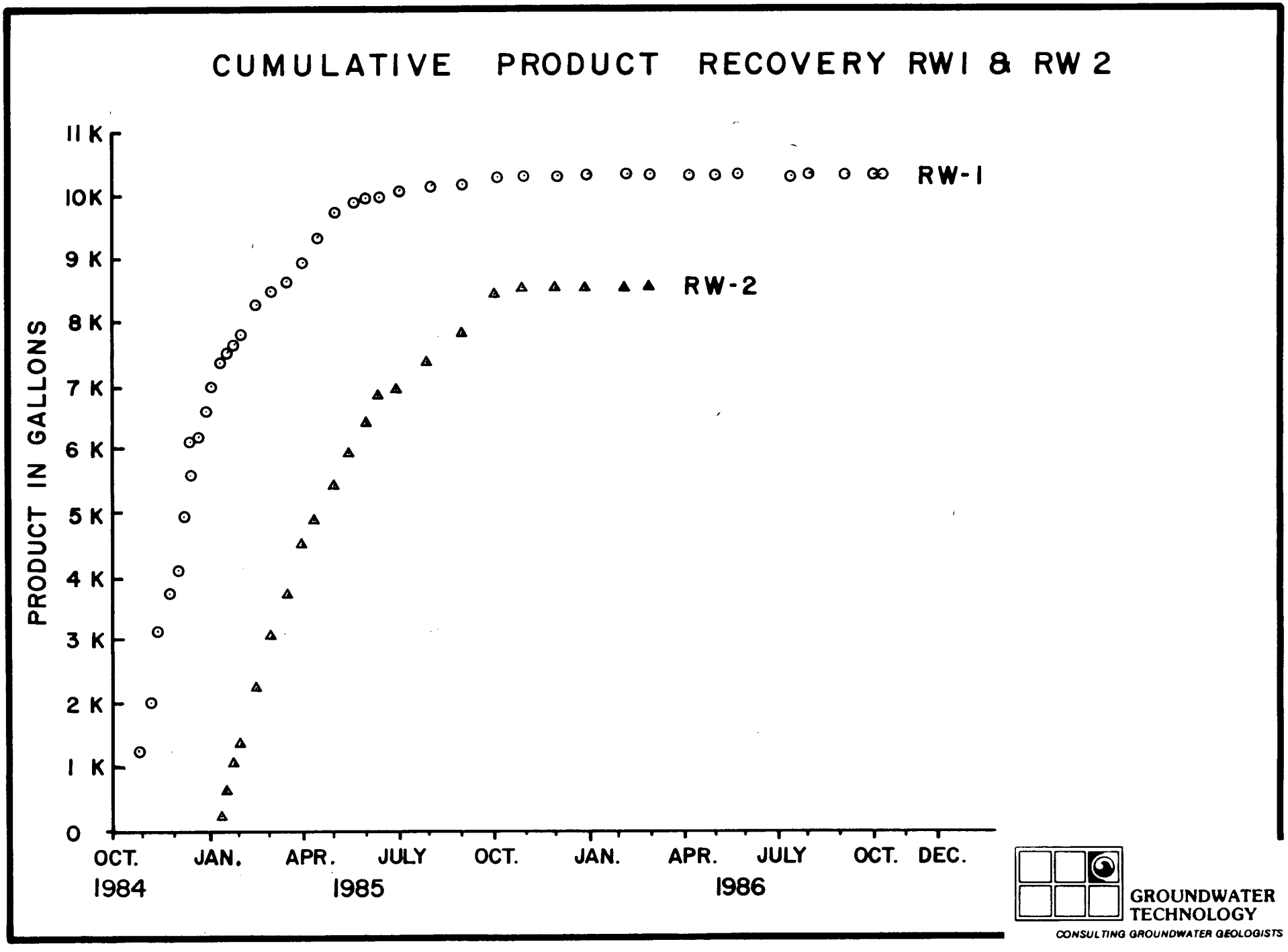

RECOVERY WELL 2
HYDROGRAPH WITH PRODUCT THICKNESS
ELEVATION IN FEET
(NOT SURVEYED TO SEA LEVEL)
75
70
65
60
55
PRODUCT SURFACE
WATER TABLE
OCT.
1984
JAN.
APR.
JULY
1985
OCT.
JAN.
APR.
JULY
1986
OCT.
GROUNDWATER TECHNOLOGY
CONSULTING GROUNDWATER GEOLOGISTS

Figure 7



GROUNDWATER TECHNOLOGY
CONSULTING GROUNDWATER GEOLOGISTS

Figure 8

SUMMARY AND CONCLUSIONS

The groundwater quality in the vicinity of Monument, New Mexico has long been impacted by oil production activities. The extent of contamination of the shallow groundwater aquifer by brine pit leakage is detailed in Nicholson, 1961, and the Dennison report to the Monument Water User's Cooperative. Information from the two sources previously cited shows that brine pits and other oil field activities have had a deleterious effect on the shallow groundwater aquifer.

Groundwater gradient data document steady declines in phase-separated product thicknesses in all of the 35 wells installed for this project. On 3 October, 1986 only five wells contained measurable product ranging from 0.11 feet (RW-2) to 0.02 feet in three other wells. On 8 October, 1986 only two wells contained measurable amounts of free product.

Available water quality data for two samples collected on 6 June, 1986, show that both samples met New Mexico groundwater standards for dissolved hydrocarbons (Teleconference with Dennis McQuillan, New Mexico EID, 10 July, 1986). (Please see Appendix II for laboratory report.)

Physical evidence documented in GTI's two previous reports of December, 1984 and April, 1985 noted the possibility of two separate plumes of subsurface contamination. Data indicated that the plumes were of two separate, non-related origins. Subsequent mapping of subsurface data supplied by Texas-New Mexico confirmed the separate plume theory (please see Fig. 3).

Recovery operations in the northern plume have apparently affected and may have recovered some product from the southern plume. Data for October, 1986 shows the virtual elimination of recoverable quantities of free product from either plume.

Other significant points addressed in this report include the following:

* Texas-New Mexico Pipeline is unable to document a total crude oil loss for this spill (personal communication, Mr. B. Lednicky, January, 1987).

* A conservative estimate of the total crude oil recovered is 60,922 gallons by a): Adsorbed product removed with contaminated soil (42,000 gallons), and b): Phase-separated product from RW-1 (10,344 gallons) and RW-2 (8,578 gallons).

* No operational changes were made for product recovery or monitoring of subsurface hydrocarbons except that TNM was granted permission to remove equipment which could be vandalized if left on site.

* Weekly and monthly measurements of depth to product and product thickness can be found in Appendix I.

* Results of analysis of water samples collected from the site during 1984, 1985, and 1986 are presented in Appendix II. Wells containing phase-separated hydrocarbons were not sampled.

* Only minor amounts of phase-separated hydrocarbons remain in the subsurface with measurable product being present in three wells on 3 October, 1986.

Based upon the facts that the area is a) documented to be impacted by oil production activities (i.e. brine pits and production casing leakage) and b) the recovery of phase-separated product by the two pumping recovery wells is completed (i.e. remaining product is to small to be recovered by pumping), and, c) a new water source has been supplied to Monument residents, Groundwater Technology, Inc. concludes that the product lost by the pipeline leak has been recovered to the extent possible by pumping operations. The remaining contamination is of less a concern than other sources of groundwater degradation. Furthermore, natural biodegradation should remove the remaining dissolved or adsorbed hydrocarbons and restore the aquifer to its previous condition if all sources of contamination were removed.

OK

GTI's recommendation is to reduce all field activity to quarterly (every three months) monitoring for one year to see if product returns. No additional investigations are warranted.

If will but keep that

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Groundwater Technology Inc., Further investigation and abatement program report, Texas - New Mexico Pipeline, Monument, New Mexico; to Bernie Lednicky, Texas - New Mexico Pipeline Co., April 16, 1985.

Dennis Engineering Company, Engineering and Feasibility Report to the Monument Water User's Cooperative, Jan. 2, 1987.

APPENDIX I

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 11, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	36.82	35.76	1.06	0.85	35.97	64.03	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.08	19.38	0.70	0.56	19.52	81.28	
MW2	99.40	18.56		0.00	0.00	18.56	80.84	
MW3	99.50	15.34		0.00	0.00	15.34	84.16	
MW4	98.60	15.76		0.00	0.00	15.76	82.84	
MW5	100.70	16.52		0.00	0.00	16.52	84.18	
MW6	99.30	16.42		0.00	0.00	16.42	82.88	
MW7	99.50	18.07		0.00	0.00	18.07	81.43	
MW8	102.10	19.78		0.00	0.00	19.78	82.32	
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 12, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00		17.79					
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	19.46	19.20	0.26	0.21	19.25		
MW2	99.40	18.58		0.00	0.00	18.58	80.82	
MW3	99.50	15.25		0.00	0.00	15.25	84.25	
MW4	98.60	15.64		0.00	0.00	15.64	82.96	
MW5	100.70	16.50		0.00	0.00	16.50	84.20	
MW6	99.30	16.40		0.00	0.00	16.40	82.90	
MW7	99.50	18.06		0.00	0.00	18.06	81.44	
MW8	102.10	19.67		0.00	0.00	19.67	82.43	
MW9	97.80			0.00	0.00	0.00	97.80	
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Oct. 15,1984

MONITORING WELL

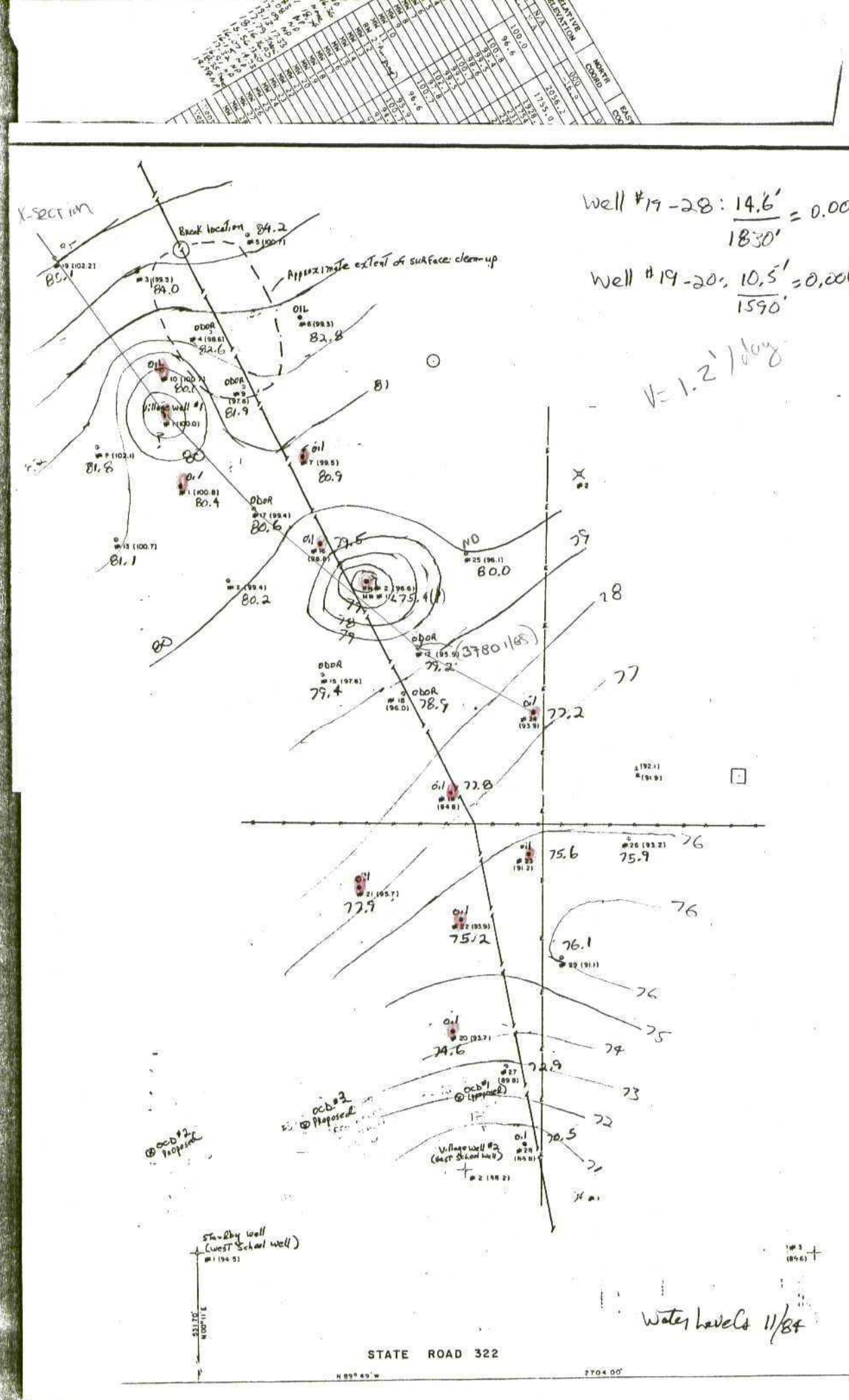
NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	17.99	17.88	0.11	0.09	17.90	82.10	PUMP NOT RUNNING
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	19.44	19.23	0.21	0.17	19.27	81.53	
MW2	99.40	18.62		0.00	0.00	18.62	80.78	
MW3	99.50	15.25		0.00	0.00	15.25	84.25	
MW4	98.60	15.64		0.00	0.00	15.64	82.96	
MW5	100.70	16.51		0.00	0.00	16.51	84.19	
MW6	99.30	16.41		0.00	0.00	16.41	82.89	SL ORDOR
MW7	99.50	18.08		0.00	0.00	18.08	81.42	ORDOR
MW8	102.10	19.69		0.00	0.00	19.69	82.41	
MW9	97.80	16.61		0.00	0.00	16.61	81.19	NEW WELL
MW10	100.7	18.7	17.98	0.72	0.58	18.12	82.58	NEW WELL
MW11/RW2	96.6	16.41	16.37	0.04	0.03	16.38	80.22	NEW WELL
MW12	95.98	16.04		0.00	0.00	16.04	79.94	NEW WELL
MW13	100.70	19.12		0.00	0.00	19.12	81.58	NEW WELL
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 16, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	37.15	27.83	9.32	7.46	29.69	70.31	WTDP RUNNING @
RW2/MW11	96.60			0.00	0.00	0.00		1200HRS10/15/84
MW1	100.80	19.92	19.40	0.52	0.42	19.50	81.30	
MW2	99.40	18.64		0.00	0.00	18.64	80.76	
MW3	99.50	15.31		0.00	0.00	15.31	84.19	
MW4	98.60	15.75		0.00	0.00	15.75	82.85	
MW5	100.70	16.42		0.00	0.00	16.42	84.28	
MW6	99.30	16.42		0.00	0.00	16.42	82.88	
MW7	99.50	18.11		0.00	0.00	18.11	81.39	
MW8	102.10	19.83		0.00	0.00	19.83	82.27	
MW9	97.80	15.71		0.00	0.00	15.71	82.09	
MW10	100.7	19.83	18.44	1.39	1.11	18.72	81.98	
MW11/RW2	96.6	16.46	16.36	0.10	0.08	16.38	80.22	
MW12	95.98	16.05		0.00	0.00	16.05	79.93	
MW13	100.70	19.19		0.00	0.00	19.19	81.51	
MW14	94.80	15.93		0.00	0.00	15.93	78.87	
MW15	97.60			0.00	0.00	0.00		NOT COMPLETED
MW16	98.80			0.00	0.00	0.00		NOT COMPLETED
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		


X-SECTION
Break location
Approximate extent of surface clean-up
Well #19-28: 14.6' / 1830' = 0.0080
Well #19-20: 10.5' / 1590' = 0.0066
V = 1.2'/day
Village well #1
Village well #2 (east school well)
Standby well (west school well)
OCD #1 Proposed
OCD #2 Proposed
3780 1/65
1475.4 (?)
LEGEND
Monitor Well
Recovery Well
Relative Elevation
Electric Line
Vent
Domestic Well
Oil Well
Storage Tank
Tank Battery
Fence
Buried Pipeline
Water Levels 11/84
STATE ROAD 322
N 89° 49' W
2704.00'
29 28
32 33

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 17, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	32.64	30.48	2.16	1.73	30.91	69.09	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.17	19.54	0.63	0.50	19.67	81.13	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.40		0.00	0.00	15.40	84.10	
MW4	98.60	15.81		0.00	0.00	15.81	82.79	
MW5	100.70	15.50		0.00	0.00	15.50	85.20	
MW6	99.30	16.41		0.00	0.00	16.41	82.89	
MW7	99.50	18.17	18.16	0.01	0.01	18.16	81.34	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.75		0.00	0.00	15.75	82.05	
MW10	100.7	20.31	18.6	1.71	1.37	18.94	81.76	
MW11/RW2	96.6	16.94	16.36	0.58	0.46	16.48	80.12	
MW12	95.98	16.07		0.00	0.00	16.07	79.91	
MW13	100.70	19.29		0.00	0.00	19.29	81.41	
MW14	94.80	15.94		0.00	0.00	15.94	78.86	
MW15	97.60			0.00	0.00	0.00		
MW16	98.80	18.21	18.18	0.03	0.02	18.19	80.61	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Oct. 24,1984

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	29.15	28.39	0.76	0.61	28.54	71.46	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.27	19.74	0.53	0.42	19.85	80.95	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.40		0.00	0.00	15.40	84.10	
MW4	98.60	15.87		0.00	0.00	15.87	82.73	
MW5	100.70	16.51		0.00	0.00	16.51	84.19	
MW6	99.30	16.43		0.00	0.00	16.43	82.87	
MW7	99.50	18.45	18.41	0.04	0.03	18.42	81.08	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	20.34	18.6	1.74	1.39	18.95	81.75	
MW11/RW2	96.6		21.55					
MW12	95.98	16.47		0.00	0.00	16.47	79.51	
MW13	100.70	19.48		0.00	0.00	19.48	81.22	
MW14	94.80	16.25		0.00	0.00	16.25	78.55	
MW15	97.60	18.02		0.00	0.00	18.02	79.58	
MW16	98.80	19.24		0.00	0.00	19.24	79.56	
MW17	99.4	18.68		0.00	0.00	18.68	80.72	
MW18	96.00	16.87		0.00	0.00	16.87	79.13	
MW19	102.20	17.02		0.00	0.00	17.02	85.18	
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Oct. 25,1984

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	29.15	28.14	1.01	0.81	28.34	71.66	
RW2/MW11	96.60			0.00	0.00	0.00		
MW 1	100.80	20.26	19.75	0.51	0.41	19.85	80.95	
MW 2	99.40			0.00	0.00	0.00		
MW 3	99.50	15.40		0.00	0.00	15.40	84.10	
MW 4	98.60	15.86		0.00	0.00	15.86	82.74	
MW 5	100.70	16.52		0.00	0.00	16.52	84.18	
MW 6	99.30	16.44		0.00	0.00	16.44	82.86	
MW 7	99.50	18.43	18.40	0.03	0.02	18.41	81.09	
MW 8	102.10			0.00	0.00	0.00		
MW 9	97.80			0.00	0.00	0.00		
MW 10	100.7	20.27	18.58	1.69	1.35	18.92	81.78	
MW 11	96.6		18.42					
MW 12	95.9	16.48		0.00	0.00	16.48	79.42	
MW 13	100.70	19.50		0.00	0.00	19.50	81.20	
MW 14	94.80	16.29	16.27	0.02	0.02	16.27	78.53	
MW 15	97.60	19.50		0.00	0.00	19.50	78.10	
MW 16	98.80	19.23	18.54	0.69	0.55	18.68	80.12	
MW 17	99.4	18.69		0.00	0.00	18.69	80.71	
MW 18	96.00	16.89		0.00	0.00	16.89	79.11	
MW 19	102.20	17.02		0.00	0.00	17.02	85.18	
MW 20	93.70			0.00	0.00	0.00		
MW 21	95.70			0.00	0.00	0.00		
MW 22	93.90			0.00	0.00	0.00		
MW 23	91.20			0.00	0.00	0.00		
MW 24	93.30			0.00	0.00	0.00		
MW 25	96.10			0.00	0.00	0.00		
MW 26	93.20			0.00	0.00	0.00		
MW 27	89.80			0.00	0.00	0.00		
MW 28	88.80			0.00	0.00	0.00		
MW 29	91.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: October 26, 1984

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	33.20	31.29	1.91	1.53	31.67	68.33	
RW2/MW11	96.60			0.00	0.00	0.00		
MW 1	100.80	20.35	19.78	0.57	0.46	19.89	80.91	
MW 2	99.40			0.00	0.00	0.00		
MW 3	99.50			0.00	0.00	0.00		
MW 4	98.60			0.00	0.00	0.00		
MW 5	100.70			0.00	0.00	0.00		
MW 6	99.30			0.00	0.00	0.00		
MW 7	99.50			0.00	0.00	0.00		
MW 8	102.10			0.00	0.00	0.00		
MW 9	97.80			0.00	0.00	0.00		
MW 10	100.7	20.6	18.68	1.92	1.54	19.06	81.64	
MW 11	96.6		24.52					
MW 12	95.9			0.00	0.00	0.00		
MW 13	100.70			0.00	0.00	0.00		
MW 14	94.80	16.32	16.30	0.02	0.02	16.30	78.50	
MW 15	97.60			0.00	0.00	0.00		
MW 16	98.80	19.30	18.63	0.67	0.54	18.76	80.04	
MW 17	99.4	18.45	18.43	0.02	0.02	18.43	80.97	
MW 18	96.00			0.00	0.00	0.00		
MW 19	102.20			0.00	0.00	0.00		
MW 20	93.70			0.00	0.00	0.00		
MW 21	95.70			0.00	0.00	0.00		
MW 22	93.90			0.00	0.00	0.00		
MW 23	91.20			0.00	0.00	0.00		
MW 24	93.30			0.00	0.00	0.00		
MW 25	96.10			0.00	0.00	0.00		
MW 26	93.20			0.00	0.00	0.00		
MW 27	89.80			0.00	0.00	0.00		
MW 28	88.80			0.00	0.00	0.00		
MW 29	91.10			0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 27, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	29.18	28.20	0.98	0.78	28.40	71.60	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	19.67	19.61	0.06	0.05	19.62	81.18	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.33		0.00	0.00	15.33	84.17	
MW4	98.60	15.74		0.00	0.00	15.74	82.86	
MW5	100.70	16.50		0.00	0.00	16.50	84.20	
MW6	99.30	16.43		0.00	0.00	16.43	82.87	
MW7	99.50	18.40		0.00	0.00	18.40	81.10	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	18.94	18.27	0.67	0.54	18.37	82.33	
MW11/RW2	96.6		22.3					
MW12	95.98	16.6		0.00	0.00	16.60	79.38	
MW13	100.70	19.42		0.00	0.00	19.42	81.28	
MW14	94.80	16.36	16.34	0.02	0.02	16.34	78.46	
MW15	97.60	18.14		0.00	0.00	18.14	79.46	
MW16	98.80	19.30	18.64	0.66	0.53	18.77	80.03	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 28, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	28.72	27.12	1.60	1.28	27.44	72.56	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	19.52	19.44	0.08	0.06	19.46	81.34	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.28		0.00	0.00	15.28	84.22	
MW4	98.60	15.67		0.00	0.00	15.67	82.93	
MW5	100.70	16.50		0.00	0.00	16.50	84.20	
MW6	99.30	16.42		0.00	0.00	16.42	82.88	
MW7	99.50	18.26		0.00	0.00	18.26	81.24	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	19.94	18.14	1.80	1.44	18.50	82.20	
MW11/RW2	96.6		23.47					
MW12	95.98	16.56		0.00	0.00	16.56	79.42	
MW13	100.70	19.28		0.00	0.00	19.28	81.42	
MW14	94.80	16.38	16.36	0.02	0.02	16.36	78.44	
MW15	97.60	18.11		0.00	0.00	18.11	79.49	
MW16	98.80	19.25	18.58	0.67	0.54	18.71	80.09	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 29, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	30.75	26.30	4.45	3.56	27.19	72.81	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.62	20.46	0.16	0.13	20.49	80.31	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.29		0.00	0.00	15.29	84.21	
MW4	98.60	15.70		0.00	0.00	15.70	82.90	
MW5	100.70	16.50		0.00	0.00	16.50	84.20	
MW6	99.30	16.41		0.00	0.00	16.41	82.89	
MW7	99.50	18.25	18.23	0.02	0.02	18.23	81.27	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	18.98	18.2	0.78	0.62	18.36	82.34	
MW11/RW2	96.6		20.85					
MW12	95.98	16.47		0.00	0.00	16.47	79.51	
MW13	100.70	19.28		0.00	0.00	19.28	81.42	
MW14	94.80	16.37	16.35	0.02	0.02	16.35	78.45	
MW15	97.60	18.03		0.00	0.00	18.03	79.57	
MW16	98.80	19.17	18.45	0.72	0.58	18.59	80.21	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 30, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	28.69	28.13	0.56	0.45	28.24	71.76	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.51	20.42	0.09	0.07	20.44	80.36	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.29		0.00	0.00	15.29	84.21	
MW4	98.60	15.70		0.00	0.00	15.70	82.90	
MW5	100.70	16.51		0.00	0.00	16.51	84.19	
MW6	99.30	16.42		0.00	0.00	16.42	82.88	
MW7	99.50	18.22	18.21	0.01	0.01	18.21	81.29	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	18.9	18.16	0.74	0.59	18.31	82.39	
MW11/RW2	96.6		22.41					
MW12	95.98	16.47		0.00	0.00	16.47	79.51	
MW13	100.70	19.26		0.00	0.00	19.26	81.44	
MW14	94.80	16.35	16.33	0.02	0.02	16.33	78.47	
MW15	97.60	18.00		0.00	0.00	18.00	79.60	
MW16	98.80	19.13	18.44	0.69	0.55	18.58	80.22	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: OCT. 31, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	30.87	27.78	3.09	2.47	28.40	71.60	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	19.86	19.52	0.34	0.27	19.59	81.21	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50	15.32		0.00	0.00	15.32	84.18	
MW4	98.60	15.75	15.74	0.01	0.01	15.74	82.86	
MW5	100.70	16.50		0.00	0.00	16.50	84.20	
MW6	99.30	16.42		0.00	0.00	16.42	82.88	
MW7	99.50	18.26	18.25	0.01	0.01	18.25	81.25	
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	19.19	18.41	0.78	0.62	18.57	82.13	
MW11/RW2	96.6		20.68					
MW12	95.98	16.49		0.00	0.00	16.49	79.49	
MW13	100.70	19.30		0.00	0.00	19.30	81.40	
MW14	94.80	16.34	16.32	0.02	0.02	16.32	78.48	
MW15	97.60	17.98		0.00	0.00	17.98	79.62	
MW16	98.80	19.12	18.45	0.67	0.54	18.58	80.22	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 13, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.19	31.42	2.77	2.22	31.97	68.03	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.46	19.91	0.55	0.44	20.02	80.78	
MW2	99.40	19.25		0.00	0.00	19.25	80.15	
MW3	99.50	15.50		0.00	0.00	15.50	84.00	
MW4	98.60	15.98	15.98	0.00	0.00	15.98	82.62	
MW5	100.70	16.52		0.00	0.00	16.52	84.18	
MW6	99.30	16.47		0.00	0.00	16.47	82.83	
MW7	99.50	18.67	18.55	0.12	0.10	18.57	80.93	
MW8	102.10	20.27		0.00	0.00	20.27	81.83	
MW9	97.80	15.92		0.00	0.00	15.92	81.88	
MW10	100.7	20.73	18.75	1.98	1.58	19.15	81.55	
MW11/RW2	96.6		21.1					
MW12	95.98	16.7		0.00	0.00	16.70	79.28	
MW13	100.70	19.65		0.00	0.00	19.65	81.05	
MW14	94.80	17.03	16.40	0.63	0.50	16.53	78.27	
MW15	97.60	18.25		0.00	0.00	18.25	79.35	
MW16	98.80	19.37	18.77	0.60	0.48	18.89	79.91	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 14, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.78	31.50	3.28	2.62	32.16	67.84	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.45	19.92	0.53	0.42	20.03	80.77	
MW2	99.40	19.28		0.00	0.00	19.28	80.12	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	16.01		0.00	0.00	16.01	82.59	
MW5	100.70	16.56		0.00	0.00	16.56	84.14	
MW6	99.30	16.47		0.00	0.00	16.47	82.83	
MW7	99.50	18.70	18.56	0.14	0.11	18.59	80.91	
MW8	102.10	20.29		0.00	0.00	20.29	81.81	
MW9	97.80	15.95		0.00	0.00	15.95	81.85	
MW10	100.7	20.75	18.75	2.00	1.60	19.15	81.55	
MW11/RW2	96.6		21.05					
MW12	95.98	16.74		0.00	0.00	16.74	79.24	
MW13	100.70	19.67		0.00	0.00	19.67	81.03	
MW14	94.80	17.05	16.40	0.65	0.52	16.53	78.27	
MW15	97.60	18.29		0.00	0.00	18.29	79.31	
MW16	98.80	19.38	18.78	0.60	0.48	18.90	79.90	
MW17	99.4	18.87		0.00	0.00	18.87	80.53	
MW18	96.00	17.13		0.00	0.00	17.13	78.87	
MW19	102.20	17.10		0.00	0.00	17.10	85.10	
MW20	93.70	19.30	17.32	1.98	1.58	17.72	75.98	
MW21	95.70	17.86		0.00	0.00	17.86	77.84	
MW22	93.90	18.19	16.95	1.24	0.99	17.20	76.70	
MW23	91.20	15.68	13.73	1.95	1.56	14.12	77.08	
MW24	93.30	16.13	14.77	1.36	1.09	15.04	78.26	
MW25	96.10	16.22		0.00	0.00	16.22	79.88	
MW26	93.20	17.35		0.00	0.00	17.35	75.85	
MW27	89.80	16.49		0.00	0.00	16.49	73.31	
MW28	88.80	17.11		0.00	0.00	17.11	71.69	
MW29	91.10	15.01		0.00	0.00	15.01	76.09	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 15, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.50	31.66	2.84	2.27	32.23	67.77	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.48	19.95	0.53	0.42	20.06	80.74	
MW2	99.40	19.31		0.00	0.00	19.31	80.09	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	16.00		0.00	0.00	16.00	82.60	
MW5	100.70	16.53		0.00	0.00	16.53	84.17	
MW6	99.30	16.48		0.00	0.00	16.48	82.82	
MW7	99.50	18.73	18.59	0.14	0.11	18.62	80.88	
MW8	102.10	20.30		0.00	0.00	20.30	81.80	
MW9	97.80	15.96		0.00	0.00	15.96	81.84	
MW10	100.7	20.76	18.78	1.98	1.58	19.18	81.52	
MW11/RW2	96.6		23.58					
MW12	95.98	16.77		0.00	0.00	16.77	79.21	
MW13	100.70	19.67		0.00	0.00	19.67	81.03	
MW14	94.80	17.10	16.43	0.67	0.54	16.56	78.24	
MW15	97.60	18.31		0.00	0.00	18.31	79.29	
MW16	98.80	19.35	18.82	0.53	0.42	18.93	79.87	
MW17	99.4	18.9		0.00	0.00	18.90	80.50	
MW18	96.00	17.15		0.00	0.00	17.15	78.85	
MW19	102.20	17.10		0.00	0.00	17.10	85.10	
MW20	93.70	19.35	17.32	2.03	1.62	17.73	75.97	
MW21	95.70	17.84		0.00	0.00	17.84	77.86	
MW22	93.90	18.21	16.97	1.24	0.99	17.22	76.68	
MW23	91.20	15.71	13.75	1.96	1.57	14.14	77.06	
MW24	93.30	16.16	14.80	1.36	1.09	15.07	78.23	
MW25	96.10	16.26		0.00	0.00	16.26	79.84	
MW26	93.20	17.35		0.00	0.00	17.35	75.85	
MW27	89.80	16.40		0.00	0.00	16.40	73.40	
MW28	88.80	16.96		0.00	0.00	16.96	71.84	
MW29	91.10	15.03		0.00	0.00	15.03	76.07	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 16, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.55	31.75	2.80	2.24	32.31	67.69	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.47	19.96	0.51	0.41	20.06	80.74	
MW2	99.40	19.32		0.00	0.00	19.32	80.08	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	16.02		0.00	0.00	16.02	82.58	
MW5	100.70	16.54		0.00	0.00	16.54	84.16	
MW6	99.30	16.48		0.00	0.00	16.48	82.82	
MW7	99.50	18.76	18.60	0.16	0.13	18.63	80.87	
MW8	102.10	20.32		0.00	0.00	20.32	81.78	
MW9	97.80	15.97		0.00	0.00	15.97	81.83	
MW10	100.7	20.79	18.79	2.00	1.60	19.19	81.51	
MW11/RW2	96.6		20.79					
MW12	95.98	16.78		0.00	0.00	16.78	79.20	
MW13	100.70	19.68		0.00	0.00	19.68	81.02	
MW14	94.80	17.11	16.46	0.65	0.52	16.59	78.21	
MW15	97.60	18.33		0.00	0.00	18.33	79.27	
MW16	98.80	19.34	18.82	0.52	0.42	18.92	79.88	
MW17	99.4	18.92		0.00	0.00	18.92	80.48	
MW18	96.00	17.17		0.00	0.00	17.17	78.83	
MW19	102.20	17.11		0.00	0.00	17.11	85.09	
MW20	93.70	19.39	17.26	2.13	1.70	17.69	76.01	
MW21	95.70	17.85		0.00	0.00	17.85	77.85	
MW22	93.90	18.24	16.98	1.26	1.01	17.23	76.67	
MW23	91.20	15.72	13.77	1.95	1.56	14.16	77.04	
MW24	93.30	16.18	14.81	1.37	1.10	15.08	78.22	
MW25	96.10	16.27		0.00	0.00	16.27	79.83	
MW26	93.20	17.34		0.00	0.00	17.34	75.86	
MW27	89.80	16.28		0.00	0.00	16.28	73.52	
MW28	88.80	16.76		0.00	0.00	16.76	72.04	
MW29	91.10	15.03		0.00	0.00	15.03	76.07	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 17, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.20	31.76	2.44	1.95	32.25	67.75	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.48	19.97	0.51	0.41	20.07	80.73	
MW2	99.40	19.35		0.00	0.00	19.35	80.05	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	16.01		0.00	0.00	16.01	82.59	
MW5	100.70	16.53		0.00	0.00	16.53	84.17	
MW6	99.30	16.48	16.47	0.01	0.01	16.47	82.83	
MW7	99.50	18.79	18.60	0.19	0.15	18.64	80.86	
MW8	102.10	20.31		0.00	0.00	20.31	81.79	
MW9	97.80	15.98		0.00	0.00	15.98	81.82	
MW10	100.7	20.75	18.79	1.96	1.57	19.18	81.52	
MW11/RW2	96.6		22.6					
MW12	95.98	16.82		0.00	0.00	16.82	79.16	
MW13	100.70	19.69		0.00	0.00	19.69	81.01	
MW14	94.80	17.24	16.46	0.78	0.62	16.62	78.18	
MW15	97.60	18.36		0.00	0.00	18.36	79.24	
MW16	98.80	19.32	18.82	0.50	0.40	18.92	79.88	
MW17	99.4	18.94		0.00	0.00	18.94	80.46	
MW18	96.00	17.22		0.00	0.00	17.22	78.78	
MW19	102.20	17.09		0.00	0.00	17.09	85.11	
MW20	93.70	19.45	17.20	2.25	1.80	17.65	76.05	
MW21	95.70	17.85		0.00	0.00	17.85	77.85	
MW22	93.90	18.20	16.95	1.25	1.00	17.20	76.70	
MW23	91.20	15.71	13.76	1.95	1.56	14.15	77.05	
MW24	93.30	16.15	14.82	1.33	1.06	15.09	78.21	
MW25	96.10	16.30		0.00	0.00	16.30	79.80	
MW26	93.20	17.30		0.00	0.00	17.30	75.90	
MW27	89.80	16.14		0.00	0.00	16.14	73.66	
MW28	88.80	16.56		0.00	0.00	16.56	72.24	
MW29	91.10	15.00		0.00	0.00	15.00	76.10	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 18, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	34.53	32.95	1.58	1.26	33.27	66.73	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.47	19.95	0.52	0.42	20.05	80.75	
MW2	99.40	19.36		0.00	0.00	19.36	80.04	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	16.01		0.00	0.00	16.01	82.59	
MW5	100.70	16.52		0.00	0.00	16.52	84.18	
MW6	99.30	16.46		0.00	0.00	16.46	82.84	
MW7	99.50	18.83	18.62	0.21	0.17	18.66	80.84	
MW8	102.10	20.31		0.00	0.00	20.31	81.79	
MW9	97.80	15.98		0.00	0.00	15.98	81.82	
MW10	100.7	20.3	18.71	1.59	1.27	19.03	81.67	
MW11/RW2	96.6		23.2					
MW12	95.98	16.84		0.00	0.00	16.84	79.14	
MW13	100.70	19.70		0.00	0.00	19.70	81.00	
MW14	94.80	17.34	16.47	0.87	0.70	16.64	78.16	
MW15	97.60	18.38		0.00	0.00	18.38	79.22	
MW16	98.80	19.32	18.88	0.44	0.35	18.97	79.83	
MW17	99.4	18.95		0.00	0.00	18.95	80.45	
MW18	96.00	17.21		0.00	0.00	17.21	78.79	
MW19	102.20	17.09		0.00	0.00	17.09	85.11	
MW20	93.70	19.54	17.20	2.34	1.87	17.67	76.03	
MW21	95.70	17.87		0.00	0.00	17.87	77.83	
MW22	93.90	18.20	16.97	1.23	0.98	17.22	76.68	
MW23	91.20	15.72	13.78	1.94	1.55	14.17	77.03	
MW24	93.30	16.18	14.84	1.34	1.07	15.11	78.19	
MW25	96.10	16.32		0.00	0.00	16.32	79.78	
MW26	93.20	17.30		0.00	0.00	17.30	75.90	
MW27	89.80	16.13		0.00	0.00	16.13	73.67	
MW28	88.80	16.52	16.51	0.01	0.01	16.51	72.29	
MW29	91.10	15.01		0.00	0.00	15.01	76.09	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: NOV. 19, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00			0.00	0.00	0.00		
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.48	19.85	0.63	0.50	19.98	80.82	
MW2	99.40	19.34		0.00	0.00	19.34	80.06	
MW3	99.50	15.53		0.00	0.00	15.53	83.97	
MW4	98.60	15.93		0.00	0.00	15.93	82.67	
MW5	100.70	16.52		0.00	0.00	16.52	84.18	
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.80	18.60	0.20	0.16	18.64	80.86	
MW8	102.10	20.15		0.00	0.00	20.15	81.95	
MW9	97.80	15.87		0.00	0.00	15.87	81.93	
MW10	100.7	19.15	18.72	0.43	0.34	18.81	81.89	
MW11/RW2	96.6		23.22					
MW12	95.98	16.9		0.00	0.00	16.90	79.08	
MW13	100.70	19.65		0.00	0.00	19.65	81.05	
MW14	94.80	17.50	16.55	0.95	0.76	16.74	78.06	
MW15	97.60	18.40		0.00	0.00	18.40	79.20	
MW16	98.80	19.35		0.00	0.00	19.35	79.45	
MW17	99.4	18.9		0.00	0.00	18.90	80.50	
MW18	96.00	17.24		0.00	0.00	17.24	78.76	
MW19	102.20	17.09		0.00	0.00	17.09	85.11	
MW20	93.70	19.57	17.20	2.37	1.90	17.67	76.03	
MW21	95.70	17.88		0.00	0.00	17.88	77.82	
MW22	93.90	18.20	16.97	1.23	0.98	17.22	76.68	
MW23	91.20	15.74	13.79	1.95	1.56	14.18	77.02	
MW24	93.30	16.19	14.86	1.33	1.06	15.13	78.17	
MW25	96.10	16.35		0.00	0.00	16.35	79.75	
MW26	93.20	17.30		0.00	0.00	17.30	75.90	
MW27	89.80	16.10		0.00	0.00	16.10	73.70	
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	15.01		0.00	0.00	15.01	76.09	
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: DEC. 1, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	35.01	33.86	1.15	0.92	34.09	65.91	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: DEC. 3, 1984

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00			0.00	0.00	0.00		
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.62	20.12	0.50	0.40	20.22	80.58	
MW2	99.40	19.52		0.00	0.00	19.52	79.88	
MW3	99.50	15.61		0.00	0.00	15.61	83.89	
MW4	98.60	16.13		0.00	0.00	16.13	82.47	
MW5	100.70	16.53		0.00	0.00	16.53	84.17	
MW6	99.30	16.52		0.00	0.00	16.52	82.78	
MW7	99.50	19.12	18.73	0.39	0.31	18.81	80.69	
MW8	102.10	20.44		0.00	0.00	20.44	81.66	
MW9	97.80	16.14		0.00	0.00	16.14	81.66	
MW10	100.7	20.75	18.95	1.80	1.44	19.31	81.39	
MW11/RW2	96.6		24.01					
MW12	95.98	16.99		0.00	0.00	16.99	78.99	
MW13	100.70	19.82		0.00	0.00	19.82	80.88	
MW14	94.80			0.00	0.00	0.00		
MW15	97.60	18.55		0.00	0.00	18.55	79.05	
MW16	98.80	19.33	19.02	0.31	0.25	19.08	79.72	
MW17	99.4	19.08		0.00	0.00	19.08	80.32	
MW18	96.00	17.35		0.00	0.00	17.35	78.65	
MW19	102.20	17.12		0.00	0.00	17.12	85.08	
MW20	93.70	20.42	17.26	3.16	2.53	17.89	75.81	
MW21	95.70	18.02	18.02	0.00	0.00	18.02	77.68	
MW22	93.90	18.25	17.07	1.18	0.94	17.31	76.59	
MW23	91.20	15.91	13.90	2.01	1.61	14.30	76.90	
MW24	93.30	16.20	14.97	1.23	0.98	15.22	78.08	
MW25	96.10	16.46		0.00	0.00	16.46	79.64	
MW26	93.20	17.30		0.00	0.00	17.30	75.90	
MW27	89.80	16.04		0.00	0.00	16.04	73.76	
MW28	88.80	16.36		0.00	0.00	16.36	72.44	
MW29	91.10	16.96	14.82	2.14	1.71	15.25	75.85	
MW30				0.00	0.00	0.00	0.00	
MW31				0.00	0.00	0.00	0.00	
MW32				0.00	0.00	0.00	0.00	
MW33				0.00	0.00	0.00	0.00	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Dec. 04,1984

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	33.98	32.93	1.05	0.84	33.14	66.86	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80	20.63	20.12	0.51	0.41	20.22	80.58	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30				0.00	0.00	0.00		
MW31				0.00	0.00	0.00		
MW32				0.00	0.00	0.00		
MW33				0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan 2,1985

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	32.11	28.82	3.29	2.63	29.48	70.52	
RW2/MW11	96.60	41.59	25.92	15.67	12.54	29.05	67.55	
MW1	100.80	20.49	20.17	0.32	0.26	20.23	80.57	
MW2	99.40	20.03		0.00	0.00	20.03	79.37	
MW3	99.50	15.60		0.00	0.00	15.60	83.90	
MW4	98.60	16.12		0.00	0.00	16.12	82.48	
MW5	100.70	16.55		0.00	0.00	16.55	84.15	
MW6	99.30	16.64		0.00	0.00	16.64	82.66	
MW7	99.50	19.95	18.92	1.03	0.82	19.13	80.37	
MW8	102.10	20.45		0.00	0.00	20.45	81.65	
MW9	97.80	16.19		0.00	0.00	16.19	81.61	
MW10	100.7	20.45	18.78	1.67	1.34	19.11	81.59	
MW11/RW2	96.6	20.7	18.17	2.53	2.02	18.68	77.92	
MW12	95.98	17.56		0.00	0.00	17.56	78.42	
MW13	100.70	19.90		0.00	0.00	19.90	80.80	
MW14	94.80	17.93	17.05	0.88	0.70	17.23	77.57	
MW15	97.60	19.82	19.12	0.70	0.56	19.26	78.34	
MW16	98.80	20.48	19.62	0.86	0.69	19.79	79.01	
MW17	99.4	19.4		0.00	0.00	19.40	80.00	
MW18	96.00	18.05	17.83	0.22	0.18	17.87	78.13	
MW19	102.20	17.16		0.00	0.00	17.16	85.04	
MW20	93.70	21.33	17.43	3.90	3.12	18.21	75.49	
MW21	95.70	18.34		0.00	0.00	18.34	77.36	
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 08,85

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	33.31	28.54	4.77	3.82	29.49	70.51	
RW2/MW11	96.60	46.51	26.05	20.46	16.37	30.14	66.46	
MW1	100.80	20.62	20.26	0.36	0.29	20.33	80.47	
MW2	99.40	20.15		0.00	0.00	20.15	79.25	
MW3	99.50	15.64		0.00	0.00	15.64	83.86	
MW4	98.60	16.20		0.00	0.00	16.20	82.40	
MW5	100.70	16.56		0.00	0.00	16.56	84.14	
MW6	99.30	16.72		0.00	0.00	16.72	82.58	
MW7	99.50	20.37	18.99	1.38	1.10	19.27	80.23	
MW8	102.10	20.49		0.00	0.00	20.49	81.61	
MW9	97.80	16.29		0.00	0.00	16.29	81.51	
MW10	100.7	20.58	18.85	1.73	1.38	19.20	81.50	
MW11/RW2	96.6	20.81	18.35	2.46	1.97	18.84	77.76	
MW12	95.98	17.71		0.00	0.00	17.71	78.27	
MW13	100.70	19.98		0.00	0.00	19.98	80.72	
MW14	94.80	18.15	17.25	0.90	0.72	17.43	77.37	
MW15	97.60	20.06	19.27	0.79	0.63	19.43	78.17	
MW16	98.80	20.73	19.77	0.96	0.77	19.96	78.84	
MW17	99.4	19.5		0.00	0.00	19.50	79.90	
MW18	96.00	18.50	17.95	0.55	0.44	18.06	77.94	
MW19	102.20	17.16		0.00	0.00	17.16	85.04	
MW20	93.70	21.33	17.43	3.90	3.12	18.21	75.49	
MW21	95.70	18.34		0.00	0.00	18.34	77.36	
MW22	93.90	18.70	17.46	1.24	0.99	17.71	76.19	
MW23	91.20	16.37	14.37	2.00	1.60	14.77	76.43	
MW24	93.30	16.55	15.42	1.13	0.90	15.65	77.65	
MW25	96.10	16.97		0.00	0.00	16.97	79.13	
MW26	93.20	17.58		0.00	0.00	17.58	75.62	
MW27	89.80	16.24		0.00	0.00	16.24	73.56	
MW28	88.80	16.49		0.00	0.00	16.49	72.31	
MW29	91.10	17.31	15.19	2.12	1.70	15.61	75.49	
MW30	94.70	16.60		0.00	0.00	16.60	78.10	
MW31	92.50	16.31		0.00	0.00	16.31	76.19	
MW32	94.80	16.80		0.00	0.00	16.80	78.00	
MW33	96.10	18.36		0.00	0.00	18.36	77.74	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 09,1985

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	31.76	27.10	4.66	3.73	28.03	71.97	
RW2/MW11	96.60	28.30	27.81	0.49	0.39	27.91	68.69	
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 10,1985

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	30.75	26.68	4.07	3.26	27.49	72.51	
RW2/MW11	96.60	27.20	26.37	0.83	0.66	26.54	70.06	
MW1	100.80	20.57	20.24	0.33	0.26	20.31	80.49	
MW2	99.40	20.19		0.00	0.00	20.19	79.21	
MW3	99.50	15.65		0.00	0.00	15.65	83.85	
MW4	98.60	16.20		0.00	0.00	16.20	82.40	
MW5	100.70	16.58		0.00	0.00	16.58	84.12	
MW6	99.30	16.78		0.00	0.00	16.78	82.52	
MW7	99.50	20.36	19.02	1.34	1.07	19.29	80.21	
MW8	102.10	20.48		0.00	0.00	20.48	81.62	
MW9	97.80	16.28		0.00	0.00	16.28	81.52	
MW10	100.7	20.43	18.79	1.64	1.31	19.12	81.58	
MW11/RW2	96.6	20.77	18.43	2.34	1.87	18.90	77.70	
MW12	95.98	17.78		0.00	0.00	17.78	78.20	
MW13	100.70	19.98		0.00	0.00	19.98	80.72	
MW14	94.80	18.20	17.32	0.88	0.70	17.50	77.30	
MW15	97.60	20.15	19.34	0.81	0.65	19.50	78.10	
MW16	98.80	20.90	19.81	1.09	0.87	20.03	78.77	
MW17	99.4	19.52		0.00	0.00	19.52	79.88	
MW18	96.00	18.59	18.00	0.59	0.47	18.12	77.88	
MW19	102.20	17.18		0.00	0.00	17.18	85.02	
MW20	93.70	21.53	17.67	3.86	3.09	18.44	75.26	
MW21	95.70	18.53		0.00	0.00	18.53	77.17	
MW22	93.90	18.22	17.55	0.67	0.54	17.68	76.22	
MW23	91.20	16.45	14.44	2.01	1.61	14.84	76.36	
MW24	93.30	16.60	15.47	1.13	0.90	15.70	77.60	
MW25	96.10	17.02		0.00	0.00	17.02	79.08	
MW26	93.20	17.66		0.00	0.00	17.66	75.54	
MW27	89.80	16.32		0.00	0.00	16.32	73.48	
MW28	88.80	16.57		0.00	0.00	16.57	72.23	
MW29	91.10	17.35	15.27	2.08	1.66	15.69	75.41	
MW30	94.70	16.12		0.00	0.00	16.12	78.58	
MW31	92.50	16.36		0.00	0.00	16.36	76.14	
MW32	94.80	16.85		0.00	0.00	16.85	77.95	
MW33	96.10	18.41		0.00	0.00	18.41	77.69	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 16,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	28.40	26.57	1.83	1.46	26.94	73.06	
RW2/MW11	96.60	27.44	26.83	0.61	0.49	26.95	69.65	
MW1	100.80	20.64	20.28	0.36	0.29	20.35	80.45	
MW2	99.40	20.29		0.00	0.00	20.29	79.11	
MW3	99.50	25.67		0.00	0.00	25.67	73.83	
MW4	98.60	16.26		0.00	0.00	16.26	82.34	
MW5	100.70	16.60		0.00	0.00	16.60	84.10	
MW6	99.30	16.83		0.00	0.00	16.83	82.47	
MW7	99.50	20.64	19.07	1.57	1.26	19.38	80.12	
MW8	102.10	20.52		0.00	0.00	20.52	81.58	
MW9	97.80	16.34		0.00	0.00	16.34	81.46	
MW10	100.7	20.45	18.8	1.65	1.32	19.13	81.57	
MW11/RW2	96.6	20.8	18.56	2.24	1.79	19.01	77.59	
MW12	95.98	17.92		0.00	0.00	17.92	78.06	
MW13	100.70	20.03		0.00	0.00	20.03	80.67	
MW14	94.80	18.33	17.51	0.82	0.66	17.67	77.13	
MW15	97.60	20.36	19.47	0.89	0.71	19.65	77.95	
MW16	98.80	21.21	19.91	1.30	1.04	20.17	78.63	
MW17	99.4	19.6		0.00	0.00	19.60	79.80	
MW18	96.00	18.82	18.13	0.69	0.55	18.27	77.73	
MW19	102.20	17.20		0.00	0.00	17.20	85.00	
MW20	93.70	21.71	17.90	3.81	3.05	18.66	75.04	
MW21	95.70	18.70		0.00	0.00	18.70	77.00	
MW22	93.90	19.02	17.75	1.27	1.02	18.00	75.90	
MW23	91.20	16.68	14.66	2.02	1.62	15.06	76.14	
MW24	93.30	16.65	15.63	1.02	0.82	15.83	77.47	
MW25	96.10	17.14		0.00	0.00	17.14	78.96	
MW26	93.20	17.84		0.00	0.00	17.84	75.36	
MW27	89.80	16.48		0.00	0.00	16.48	73.32	
MW28	88.80	16.69		0.00	0.00	16.69	72.11	
MW29	91.10	17.53	15.60	1.93	1.54	15.99	75.11	
MW30	94.70	16.24		0.00	0.00	16.24	78.46	
MW31	92.50	16.51		0.00	0.00	16.51	75.99	
MW32	94.80	17.01		0.00	0.00	17.01	77.79	
MW33	96.10	18.53		0.00	0.00	18.53	77.57	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: March 15,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	31.50	30.23	1.27	1.02	30.48	69.52	
RW2/MW11	96.60	23.62	22.80	0.82	0.66	22.96	73.64	
MW1	100.80	21.13	20.74	0.39	0.31	20.82	79.98	
MW2	99.40	20.47		0.00	0.00	20.47	78.93	
MW3	99.50	16.27		0.00	0.00	16.27	83.23	
MW4	98.60	16.88	16.78	0.10	0.08	16.80	81.80	
MW5	100.70	16.95		0.00	0.00	16.95	83.75	
MW6	99.30	17.28		0.00	0.00	17.28	82.02	
MW7	99.50	20.80	19.40	1.40	1.12	19.68	79.82	
MW8	102.10	20.92		0.00	0.00	20.92	81.18	
MW9	97.80	17.65	16.75	0.90	0.72	16.93	80.87	
MW10	100.7	20.93	19.45	1.48	1.18	19.75	80.95	
MW11/RW2	96.6	19.76	18.42	1.34	1.07	18.69	77.91	
MW12	95.98	18.13		0.00	0.00	18.13	77.85	
MW13	100.70	20.34		0.00	0.00	20.34	80.36	
MW14	94.80	19.02	18.07	0.95	0.76	18.26	76.54	
MW15	97.60	20.35	19.65	0.70	0.56	19.79	77.81	
MW16	98.80	20.79	19.98	0.81	0.65	20.14	78.66	
MW17	99.4	19.9		0.00	0.00	19.90	79.50	
MW18	96.00	19.32	18.40	0.92	0.74	18.58	77.42	
MW19	102.20	17.56		0.00	0.00	17.56	84.64	
MW20	93.70	23.92	19.39	4.53	3.62	20.30	73.40	
MW21	95.70	19.36		0.00	0.00	19.36	76.34	
MW22	93.90	19.93	18.90	1.03	0.82	19.11	74.79	
MW23	91.20	17.52	15.75	1.77	1.42	16.10	75.10	
MW24	93.30	17.25	16.18	1.07	0.86	16.39	76.91	
MW25	96.10	17.41		0.00	0.00	17.41	78.69	
MW26	93.20	19.07		0.00	0.00	19.07	74.13	
MW27	89.80	18.51		0.00	0.00	18.51	71.29	
MW28	88.80	19.45		0.00	0.00	19.45	69.35	
MW29	91.10	18.97	17.25	1.72	1.38	17.59	73.51	
MW30	94.70	16.69		0.00	0.00	16.69	78.01	
MW31	92.50	17.25		0.00	0.00	17.25	75.25	
MW32	94.80	17.35		0.00	0.00	17.35	77.45	
MW33	96.10	18.42	18.35	0.07	0.06	18.36	77.74	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: April 18,1985

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	38.30	36.56	1.74	1.39	36.91	63.09	
RW2/MW11	96.60	24.20	22.70	1.50	1.20	23.00	73.60	
MW1	100.80	21.46	21.05	0.41	0.33	21.13	79.67	
MW2	99.40	20.70		0.00	0.00	20.70	78.70	
MW3	99.50	16.34		0.00	0.00	16.34	83.16	
MW4	98.60	17.16	17.06	0.10	0.08	17.08	81.52	
MW5	100.70	17.17		0.00	0.00	17.17	83.53	
MW6	99.30	17.50		0.00	0.00	17.50	81.80	
MW7	99.50	22.12	19.65	2.47	1.98	20.14	79.36	
MW8	102.10	21.16		0.00	0.00	21.16	80.94	
MW9	97.80	17.93	17.04	0.89	0.71	17.22	80.58	
MW10	100.7	20.8	19.9	0.90	0.72	20.08	80.62	
MW11/RW2	96.6	19.94	18.65	1.29	1.03	18.91	77.69	
MW12	95.98	18.4		0.00	0.00	18.40	77.58	
MW13	100.70	20.61		0.00	0.00	20.61	80.09	
MW14	94.80	19.45	18.50	0.95	0.76	18.69	76.11	
MW15	97.60	20.60	19.92	0.68	0.54	20.06	77.54	
MW16	98.80	21.14	20.17	0.97	0.78	20.36	78.44	
MW17	99.4	20.12		0.00	0.00	20.12	79.28	
MW18	96.00	19.85	18.65	1.20	0.96	18.89	77.11	
MW19	102.20	17.77		0.00	0.00	17.77	84.43	
MW20	93.70	29.22	20.44	8.78	7.02	22.20	71.50	
MW21	95.70	19.85		0.00	0.00	19.85	75.85	
MW22	93.90	20.75	19.73	1.02	0.82	19.93	73.97	
MW23	91.20	18.69	16.44	2.25	1.80	16.89	74.31	
MW24	93.30	17.62	16.58	1.04	0.83	16.79	76.51	
MW25	96.10	17.65		0.00	0.00	17.65	78.45	
MW26	93.20	19.84		0.00	0.00	19.84	73.36	
MW27	89.80	20.13		0.00	0.00	20.13	69.67	
MW28	88.80	22.36		0.00	0.00	22.36	66.44	
MW29	91.10	20.00	18.32	1.68	1.34	18.66	72.44	
MW30	94.70	17.00		0.00	0.00	17.00	77.70	
MW31	92.50	17.74		0.00	0.00	17.74	74.76	
MW32	94.80	17.64		0.00	0.00	17.64	77.16	
MW33	96.10	18.62	18.57	0.05	0.04	18.58	77.52	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: June 12,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	42.98	28.73	14.25	11.40	31.58	68.42	
RW2/MW11	96.60	24.20	23.40	0.80	0.64	23.56	73.04	
MW1	100.80	20.52		0.00	0.00	20.52	80.28	
MW2	99.40	20.47		0.00	0.00	20.47	78.93	
MW3	99.50	15.73		0.00	0.00	15.73	83.77	
MW4	98.60			0.00	0.00	0.00	98.60	
MW5	100.70			0.00	0.00	0.00	100.70	
MW6	99.30			0.00	0.00	0.00	99.30	
MW7	99.50	20.20	19.35	0.85	0.68	19.52	79.98	
MW8	102.10	20.63		0.00	0.00	20.63	81.47	
MW9	97.80			0.00	0.00	0.00	97.80	
MW10	100.7	19.5	19.05	0.45	0.36	19.14	81.56	
MW11/RW2	96.6	19.55	18.5	1.05	0.84	18.71	77.89	
MW12	95.98	18.39	18.35	0.04	0.03	18.36	77.62	
MW13	100.70	20.24		0.00	0.00	20.24	80.46	
MW14	94.80	20.44	18.73	1.71	1.37	19.07	75.73	
MW15	97.60	20.26	19.90	0.36	0.29	19.97	77.63	
MW16	98.80	20.58	19.93	0.65	0.52	20.06	78.74	
MW17	99.4	19.73		0.00	0.00	19.73	79.67	
MW18	96.00	19.90	18.65	1.25	1.00	18.90	77.10	
MW19	102.20	17.21		0.00	0.00	17.21	84.99	
MW20	93.70	27.15	21.10	6.05	4.84	22.31	71.39	
MW21	95.70	20.20		0.00	0.00	20.20	75.50	
MW22	93.90	21.35	20.15	1.20	0.96	20.39	73.51	
MW23	91.20	18.02	16.85	1.17	0.94	17.08	74.12	
MW24	93.30	17.62	16.65	0.97	0.78	16.84	76.46	
MW25	96.10	17.59		0.00	0.00	17.59	78.51	
MW26	93.20	20.16		0.00	0.00	20.16	73.04	
MW27	89.80	20.14		0.00	0.00	20.14	69.66	
MW28	88.80	21.59		0.00	0.00	21.59	67.21	
MW29	91.10	20.10	18.73	1.37	1.10	19.00	72.10	
MW30	94.70	17.01		0.00	0.00	17.01	77.69	
MW31	92.50	17.97		0.00	0.00	17.97	74.53	
MW32	94.80	17.67		0.00	0.00	17.67	77.13	
MW33	96.10	18.42		0.00	0.00	18.42	77.68	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 11,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	35.90	32.76	3.14	2.51	33.39	66.61	
RW2/MW11	96.60	24.07	23.07	1.00	0.80	23.27	73.33	
MW1	100.80	20.63	20.62	0.01	0.01	20.62	80.18	
MW2	99.40	20.54		0.00	0.00	20.54	78.86	
MW3	99.50	15.97		0.00	0.00	15.97	83.53	
MW4	98.60	16.72	16.64	0.08	0.06	16.66	81.94	
MW5	100.70	16.93		0.00	0.00	16.93	83.77	
MW6	99.30	17.24		0.00	0.00	17.24	82.06	
MW7	99.50	20.43	19.41	1.02	0.82	19.61	79.89	
MW8	102.10	20.79		0.00	0.00	20.79	81.31	
MW9	97.80	17.45	16.61	0.84	0.67	16.78	81.02	
MW10	100.7	20.25	19.31	0.94	0.75	19.50	81.20	
MW11/RW2	96.6	19.53	18.83	0.70	0.56	18.97	77.63	
MW12	95.98	18.52	18.51	0.01	0.01	18.51	77.47	
MW13	100.70	20.34		0.00	0.00	20.34	80.36	
MW14	94.80	21.61	18.90	2.71	2.17	19.44	75.36	
MW15	97.60	20.23	19.90	0.33	0.26	19.97	77.63	
MW16	98.80	20.43	20.13	0.30	0.24	20.19	78.61	
MW17	99.4	19.84		0.00	0.00	19.84	79.56	
MW18	96.00	20.05	18.72	1.33	1.06	18.99	77.01	
MW19	102.20	17.35		0.00	0.00	17.35	84.85	
MW20	93.70	29.47	21.88	7.59	6.07	23.40	70.30	
MW21	95.70	20.52		0.00	0.00	20.52	75.18	
MW22	93.90	22.75	20.78	1.97	1.58	21.17	72.73	
MW23	91.20	19.63	17.44	2.19	1.75	17.88	73.32	
MW24	93.30	17.93	16.92	1.01	0.81	17.12	76.18	
MW25	96.10	17.73		0.00	0.00	17.73	78.37	
MW26	93.20	20.78		0.00	0.00	20.78	72.42	
MW27	89.80	21.50		0.00	0.00	21.50	68.30	
MW28	88.80	23.92		0.00	0.00	23.92	64.88	
MW29	91.10	21.60	19.67	1.93	1.54	20.06	71.04	
MW30	94.70	17.23		0.00	0.00	17.23	77.47	
MW31	92.50	18.30		0.00	0.00	18.30	74.20	
MW32	94.80	17.80		0.00	0.00	17.80	77.00	
MW33	96.10	18.65		0.00	0.00	18.65	77.45	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Aug. 23,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	47.93	47.92	0.01	0.01	47.92	52.08	
RW2/MW11	96.60	28.73	24.43	4.30	3.44	25.29	71.31	
MW1	100.80	21.70	21.63	0.07	0.06	21.64	79.16	
MW2	99.40	21.53		0.00	0.00	21.53	77.87	
MW3	99.50	16.55		0.00	0.00	16.55	82.95	
MW4	98.60	17.58	17.40	0.18	0.14	17.44	81.16	
MW5	100.70	17.42		0.00	0.00	17.42	83.28	
MW6	99.30	17.90		0.00	0.00	17.90	81.40	
MW7	99.50	21.45	20.33	1.12	0.90	20.55	78.95	
MW8	102.10	21.55		0.00	0.00	21.55	80.55	
MW9	97.80	18.45	17.45	1.00	0.80	17.65	80.15	
MW10	100.7	21.25	20.1	1.15	0.92	20.33	80.37	
MW11/RW2	96.6	20.49	19.84	0.65	0.52	19.97	76.63	
MW12	95.98	19.32		0.00	0.00	19.32	76.66	trace
MW13	100.70	21.15		0.00	0.00	21.15	79.55	
MW14	94.80	22.00	19.80	2.20	1.76	20.24	74.56	
MW15	97.60	21.68	20.87	0.81	0.65	21.03	76.57	
MW16	98.80	21.75	21.14	0.61	0.49	21.26	77.54	
MW17	99.4			0.00	0.00	0.00		
MW18	96.00	21.40	19.55	1.85	1.48	19.92	76.08	
MW19	102.20	17.90		0.00	0.00	17.90	84.30	
MW20	93.70	27.78	21.95	5.83	4.66	23.12	70.58	
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	22.42	21.07	1.35	1.08	21.34	72.56	
MW23	91.20	20.05	17.70	2.35	1.88	18.17	73.03	
MW24	93.30	18.40	17.52	0.88	0.70	17.70	75.60	
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	20.97	19.59	1.38	1.10	19.87	71.23	
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	19.65		0.00	0.00	19.65	76.45	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Sept. 9,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	30.49	30.16	0.33	0.26	30.23	69.77	
RW2/MW11	96.60	26.18	25.13	1.05	0.84	25.34	71.26	
MW1	100.80	21.41	21.37	0.04	0.03	21.38	79.42	
MW2	99.40	21.60		0.00	0.00	21.60	77.80	
MW3	99.50	16.47		0.00	0.00	16.47	83.03	
MW4	98.60	17.31	17.23	0.08	0.06	17.25	81.35	
MW5	100.70	17.44		0.00	0.00	17.44	83.26	
MW6	99.30	17.89		0.00	0.00	17.89	81.41	
MW7	99.50	21.46	20.32	1.14	0.91	20.55	78.95	
MW8	102.10	21.40		0.00	0.00	21.40	80.70	
MW9	97.80	18.27	17.28	0.99	0.79	17.48	80.32	
MW10	100.7	20.53	19.84	0.69	0.55	19.98	80.72	
MW11/RW2	96.6	20.66	20.01	0.65	0.52	20.14	76.46	
MW12	95.98	19.65	19.63	0.02	0.02	19.63	76.35	trace
MW13	100.70	21.08		0.00	0.00	21.08	79.62	
MW14	94.80	22.49	20.30	2.19	1.75	20.74	74.06	
MW15	97.60	21.95	21.12	0.83	0.66	21.29	76.31	
MW16	98.80	21.87	21.23	0.64	0.51	21.36	77.44	
MW17	99.4	21.84	20.6	1.24	0.99	20.85	78.55	
MW18	96.00	21.75	19.86	1.89	1.51	20.24	75.76	
MW19	102.20	17.94		0.00	0.00	17.94	84.26	
MW20	93.70	28.37	22.35	6.02	4.82	23.55	70.15	
MW21	95.70	21.46		0.00	0.00	21.46	74.24	
MW22	93.90	23.70	21.41	2.29	1.83	21.87	72.03	
MW23	91.20	20.13	18.11	2.02	1.62	18.51	72.69	
MW24	93.30	18.69	17.85	0.84	0.67	18.02	75.28	
MW25	96.10	18.70		0.00	0.00	18.70	77.40	
MW26	93.20	21.32		0.00	0.00	21.32	71.88	
MW27	89.80	21.05		0.00	0.00	21.05	68.75	
MW28	88.80	21.62		0.00	0.00	21.62	67.18	
MW29	91.10	21.82	20.15	1.67	1.34	20.48	70.62	
MW30	94.70	18.08		0.00	0.00	18.08	76.62	
MW31	92.50	19.05		0.00	0.00	19.05	73.45	
MW32	94.80	18.90		0.00	0.00	18.90	75.90	
MW33	96.10	19.81		0.00	0.00	19.81	76.29	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Nov. 22,1985

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	21.55	20.82	0.73	0.58	20.97	79.03	
RW2/MW11	96.60	19.98	19.00	0.98	0.78	19.20	77.40	
MW1	100.80	18.96		0.00	0.00	18.96	81.84	
MW2	99.40	18.32		0.00	0.00	18.32	81.08	
MW3	99.50	14.79		0.00	0.00	14.79	84.71	
MW4	98.60	15.57	15.50	0.07	0.06	15.51	83.09	
MW5	100.70	16.38		0.00	0.00	16.38	84.32	
MW6	99.30	16.29		0.00	0.00	16.29	83.01	
MW7	99.50	18.20	17.87	0.33	0.26	17.94	81.56	
MW8	102.10	19.24		0.00	0.00	19.24	82.86	
MW9	97.80	16.30	15.35	0.95	0.76	15.54	82.26	
MW10	100.7	17.94	17.78	0.16	0.13	17.81	82.89	
MW11/RW2	96.6	16.2	15.95	0.25	0.20	16.00	80.60	
MW12	95.98	15.83		0.00	0.00	15.83	80.15	
MW13	100.70	18.80		0.00	0.00	18.80	81.90	
MW14	94.80	15.23	15.20	0.03	0.02	15.21	79.59	
MW15	97.60	17.31	17.20	0.11	0.09	17.22	80.38	
MW16	98.80			0.00	0.00	0.00		
MW17	99.4	18.12	17.93	0.19	0.15	17.97	81.43	
MW18	96.00	16.17	16.05	0.12	0.10	16.07	79.93	
MW19	102.20	16.23		0.00	0.00	16.23	85.97	
MW20	93.70	15.62	15.20	0.42	0.34	15.28	78.42	
MW21	95.70	16.48		0.00	0.00	16.48	79.22	
MW22	93.90	15.03		0.00	0.00	15.03	78.87	
MW23	91.20	12.30	12.25	0.05	0.04	12.26	78.94	
MW24	93.30	14.30	13.90	0.40	0.32	13.98	79.32	
MW25	96.10	15.80		0.00	0.00	15.80	80.30	
MW26	93.20	15.47		0.00	0.00	15.47	77.73	
MW27	89.80	15.37		0.00	0.00	15.37	74.43	
MW28	88.80	16.75		0.00	0.00	16.75	72.05	
MW29	91.10	12.81	12.79	0.02	0.02	12.79	78.31	
MW30	94.70	15.07		0.00	0.00	15.07	79.63	
MW31	92.50	14.64		0.00	0.00	14.64	77.86	
MW32	94.80	15.02		0.00	0.00	15.02	79.78	
MW33	96.10	16.01		0.00	0.00	16.01	80.09	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 04,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	31.57	28.64	2.93	2.34	29.23	70.77	
RW2/MW11	96.60	43.57	26.02	17.55	14.04	29.53	67.07	
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6	20.7	18.17	2.53	2.02	18.68	77.92	
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.43	17.31	1.12	0.90	17.53	76.37	
MW23	91.20	16.16	14.20	1.96	1.57	14.59	76.61	
MW24	93.30	16.41	15.28	1.13	0.90	15.51	77.79	
MW25	96.10	16.85		0.00	0.00	16.85	79.25	
MW26	93.20	17.51		0.00	0.00	17.51	75.69	
MW27	89.80	16.21		0.00	0.00	16.21	73.59	
MW28	88.80	16.47		0.00	0.00	16.47	72.33	
MW29	91.10	17.23	15.00	2.23	1.78	15.45	75.65	
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Jan. 20,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	25.30	24.85	0.45	0.36	24.94	75.06	
RW2/MW11	96.60	21.50	21.32	0.18	0.14	21.36	75.24	
MW1	100.80	19.11		0.00	0.00	19.11	81.69	
MW2	99.40	18.52		0.00	0.00	18.52	80.88	
MW3	99.50	14.85		0.00	0.00	14.85	84.65	
MW4	98.60	15.65	15.56	0.09	0.07	15.58	83.02	
MW5	100.70	16.37	16.37	0.00	0.00	16.37	84.33	
MW6	99.30	16.28		0.00	0.00	16.28	83.02	
MW7	99.50	18.35	17.86	0.49	0.39	17.96	81.54	
MW8	102.10	19.35	19.35	0.00	0.00	19.35	82.75	
MW9	97.80	16.37	15.47	0.90	0.72	15.65	82.15	
MW10	100.7	18.18	17.97	0.21	0.17	18.01	82.69	
MW11/RW2	96.6	16.67	16.25	0.42	0.34	16.33	80.27	
MW12	95.98	16.02		0.00	0.00	16.02	79.96	
MW13	100.70	18.87		0.00	0.00	18.87	81.83	
MW14	94.80	15.64	15.61	0.03	0.02	15.62	79.18	
MW15	97.60	17.60	17.44	0.16	0.13	17.47	80.13	
MW16	98.80						ERR	
MW17	99.4	18.2	18.05	0.15	0.12	18.08	81.32	
MW18	96.00	16.48	16.30	0.18	0.14	16.34	79.66	
MW19	102.20	16.84		0.00	0.00	16.84	85.36	
MW20	93.70	15.64	15.53	0.11	0.09	15.55	78.15	
MW21	95.70	16.70		0.00	0.00	16.70	79.00	
MW22	93.90	15.45	15.44	0.01	0.01	15.44	78.46	
MW23	91.20	12.59	12.53	0.06	0.05	12.54	78.66	
MW24	93.30	14.64	14.40	0.24	0.19	14.45	78.85	
MW25	96.10	15.81		0.00	0.00	15.81	80.29	
MW26	93.20	15.64		0.00	0.00	15.64	77.56	
MW27	89.80	16.00		0.00	0.00	16.00	73.80	
MW28	88.80	17.71		0.00	0.00	17.71	71.09	
MW29	91.10	13.10		0.00	0.00	13.10	78.00	
MW30	94.70	15.07		0.00	0.00	15.07	79.63	
MW31	93.50	14.74		0.00	0.00	14.74	78.76	
MW32	94.80	15.19		0.00	0.00	15.19	79.61	
MW33	96.10	16.30		0.00	0.00	16.30	79.80	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Feb 7,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	25.34	24.91	0.43	0.34	25.00	75.00	
RW2/MW11	96.60	21.42	21.29	0.13	0.10	21.32	75.28	
MW1	100.80	19.13		0.00	0.00	19.13	81.67	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.68	15.57	0.11	0.09	15.59	83.01	three bails
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.34	17.96	0.38	0.30	18.04	81.46	five bails
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	16.36	15.47	0.89	0.71	15.65	82.15	seven bails
MW10	100.7	18.22	18.01	0.21	0.17	18.05	82.65	
MW11/RW2	96.6	16.68	16.29	0.39	0.31	16.37	80.23	four bails
MW12	95.98	16.03	16.01	0.02	0.02	16.01	79.97	one bail
MW13	100.70			0.00	0.00	0.00		two bails
MW14	94.80	15.65	15.60	0.05	0.04	15.61	79.19	three bails
MW15	97.60	17.61	17.46	0.15	0.12	17.49	80.11	two bails
MW16	98.80	18.17	18.14	0.03	0.02	18.15	80.65	two bails

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Feb. 10,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	24.40	24.22	0.18	0.14	24.26	75.74	
RW2/MW11	96.60	20.82	20.73	0.09	0.07	20.75	75.85	
MW1	100.80	19.11		0.00	0.00	19.11	81.69	
MW2	99.40	18.53		0.00	0.00	18.53	80.87	
MW3	99.50	14.91		0.00	0.00	14.91	84.59	
MW4	98.60	15.61	15.59	0.02	0.02	15.59	83.01	
MW5	100.70	16.39		0.00	0.00	16.39	84.31	
MW6	99.30	16.32		0.00	0.00	16.32	82.98	
MW7	99.50	18.13	18.00	0.13	0.10	18.03	81.47	
MW8	102.10	19.42		0.00	0.00	19.42	82.68	
MW9	97.80	15.60	15.57	0.03	0.02	15.58	82.22	
MW10	100.7	18.05	18	0.05	0.04	18.01	82.69	
MW11/RW2	96.6	16.42	16.31	0.11	0.09	16.33	80.27	
MW12	95.98	16.03		0.00	0.00	16.03	79.95	
MW13	100.70	18.90		0.00	0.00	18.90	81.80	
MW14	94.80	15.59	15.55	0.04	0.03	15.56	79.24	
MW15	97.60	17.53	17.47	0.06	0.05	17.48	80.12	
MW16	98.80	18.16	18.14	0.02	0.02	18.14	80.66	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Feb. 28, 1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	22.94	22.77	0.17	0.14	22.80	77.20	
RW2/MW11	96.60	20.02	19.94	0.08	0.06	19.96	76.64	
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.62	15.60	0.02	0.02	15.60	83.00	one bail
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.09	18.00	0.09	0.07	18.02	81.48	two bail
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	18.01	18	0.01	0.01	18.00	82.70	one bail
MW11/RW2	96.6	16.29	16.23	0.06	0.05	16.24	80.36	one bail
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60	17.46	17.43	0.03	0.02	17.44	80.16	one bail
MW16	98.80	18.11	18.09	0.02	0.02	18.09	80.71	one bail

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: March 7,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	22.48	22.32	0.16	0.13	22.35	77.65	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	15.53	15.51	0.02	0.02	15.51	79.29	two bails
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: March 27,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	20.88	20.73	0.15	0.12	20.76	79.24	
RW2/MW11	96.60	19.10	19.01	0.09	0.07	19.03	77.57	
MW1	100.80	19.05		0.00	0.00	19.05	81.75	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.62	15.61	0.01	0.01	15.61	82.99	two bails
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.06	18.02	0.04	0.03	18.03	81.47	three bails
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.60	15.59	0.01	0.01	15.59	82.21	two bails
MW10	100.7	17.97	17.96	0.01	0.01	17.96	82.74	two bails
MW11/RW2	96.6	16.21	16.18	0.03	0.02	16.19	80.41	three bails
MW12	95.98	15.99		0.00	0.00	15.99	79.99	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	15.61	15.60	0.01	0.01	15.60	79.20	two bails
MW15	97.60	17.44	17.40	0.04	0.03	17.41	80.19	three bails
MW16	98.80	18.04	18.04	0.00	0.00	18.04	80.76	one bail
MW17	99.4	18.06	18.01	0.05	0.04	18.02	81.38	two bails
MW18	96.00	16.34	16.32	0.02	0.02	16.32	79.68	two bails
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	16.01	16.00	0.01	0.01	16.00	77.70	two bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	15.62	15.61	0.01	0.01	15.61	78.29	two bails
MW23	91.20	12.68	12.67	0.01	0.01	12.67	78.53	two bails
MW24	93.30	14.00	13.96	0.04	0.03	13.97	79.33	three bails
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	13.48	13.47	0.01	0.01	13.47	77.63	two bails
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	16.04		0.00	0.00	16.04	80.06	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: April 4, 1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	17.90	17.86	0.04	0.03	17.87	82.13	
RW2/MW11	96.60	20.36	20.27	0.09	0.07	20.29	76.31	
MW1	100.80	19.03		0.00	0.00	19.03	81.77	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.60	15.59	0.01	0.01	15.59	83.01	two bails
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.03	18.00	0.03	0.02	18.01	81.49	three bails
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.60	15.59	0.01	0.01	15.59	82.21	two bails
MW10	100.7	17.9		0.00	0.00	17.90	82.80	two bails
MW11/RW2	96.6	16.31	16.29	0.02	0.02	16.29	80.31	three bails
MW12	95.98	16.02		0.00	0.00	16.02	79.96	
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	15.68		0.00	0.00	15.68	79.12	trace two bails
MW15	97.60	17.46	17.44	0.02	0.02	17.44	80.16	three bails
MW16	98.80	18.08		0.00	0.00	18.08	80.72	clean
MW17	99.4	18.09	18.06	0.03	0.02	18.07	81.33	two bails
MW18	96.00	16.40	16.39	0.01	0.01	16.39	79.61	three bails
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	16.21	16.19	0.02	0.02	16.19	77.51	three bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	15.87		0.00	0.00	15.87	78.03	trace two bails
MW23	91.20	12.81	12.80	0.01	0.01	12.80	78.40	two bails
MW24	93.30	14.04	14.02	0.02	0.02	14.02	79.28	three bails
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	13.68		0.00	0.00	13.68	77.42	trace two bails
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	16.24		0.00	0.00	16.24	79.86	clean

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: April 11,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	22.15	21.95	0.20	0.16	21.99	78.01	
RW2/MW11	96.60	19.40	19.28	0.12	0.10	19.30	77.30	
MW1	100.80	19.15		0.00	0.00	19.15	81.65	clean
MW2	99.40	18.53		0.00	0.00	18.53	80.87	
MW3	99.50	15.01		0.00	0.00	15.01	84.49	
MW4	98.60	15.69		0.00	0.00	15.69	82.91	trace
MW5	100.70	16.42		0.00	0.00	16.42	84.28	
MW6	99.30	16.34		0.00	0.00	16.34	82.96	
MW7	99.50	18.10	18.07	0.03	0.02	18.08	81.42	two bails
MW8	102.10	19.49		0.00	0.00	19.49	82.61	
MW9	97.80	15.64		0.00	0.00	15.64	82.16	clean
MW10	100.7	18.07	18.05	0.02	0.02	18.05	82.65	two bails
MW11/RW2	96.6	16.3	16.29	0.01	0.01	16.29	80.31	two bails
MW12	95.98	16.08		0.00	0.00	16.08	79.90	clean
MW13	100.70	18.93		0.00	0.00	18.93	81.77	
MW14	94.80	15.76	15.74	0.02	0.02	15.74	79.06	two bails
MW15	97.60	17.58	17.55	0.03	0.02	17.56	80.04	two bails
MW16	98.80	18.23		0.00	0.00	18.23	80.57	clean
MW17	99.4	18.16	18.14	0.02	0.02	18.14	81.26	two bails
MW18	96.00	16.51	16.49	0.02	0.02	16.49	79.51	two bails
MW19	102.20	16.93		0.00	0.00	16.93	85.27	
MW20	93.70	16.47	16.45	0.02	0.02	16.45	77.25	two bails
MW21	95.70	17.30		0.00	0.00	17.30	78.40	
MW22	93.90	16.06		0.00	0.00	16.06	77.84	clean
MW23	91.20	13.02	13.00	0.02	0.02	13.00	78.20	two bails
MW24	93.30	14.07	14.05	0.02	0.02	14.05	79.25	two bails
MW25	96.10	15.83		0.00	0.00	15.83	80.27	
MW26	93.20	16.62		0.00	0.00	16.62	76.58	
MW27	89.80	16.90		0.00	0.00	16.90	72.90	
MW28	88.80	20.44		0.00	0.00	20.44	68.36	
MW29	91.10	13.90	13.89	0.01	0.01	13.89	77.21	two bails
MW30	94.70	15.10		0.00	0.00	15.10	79.60	
MW31	92.50	14.92		0.00	0.00	14.92	77.58	
MW32	94.80	14.60		0.00	0.00	14.60	80.20	
MW33	96.10	16.25		0.00	0.00	16.25	79.85	

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: April 30, 1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	18.89	18.66	0.23	0.18	18.71	81.29	
RW2/MW11	96.60	19.48	19.35	0.13	0.10	19.38	77.22	
MW1	100.80			0.00	0.00	0.00		cotton bail clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.70		0.00	0.00	15.70	82.90	cotton bail clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.05		0.00	0.00	18.05	81.45	cotton bail clean
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	cotton bail clean
MW10	100.7	18.05	18.05	0.00	0.00	18.05	82.65	cotton bail clean
MW11/RW2	96.6	16.32		0.00	0.00	16.32	80.28	cotton bail clean
MW12	95.98	16.05		0.00	0.00	16.05	79.93	cotton bail clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	15.78		0.00	0.00	15.78	79.02	cotton bail clean
MW15	97.60	17.52		0.00	0.00	17.52	80.08	cotton bail clean
MW16	98.80	18.25		0.00	0.00	18.25	80.55	cotton bail clean
MW17	99.4	18.15		0.00	0.00	18.15	81.25	cotton bail clean
MW18	96.00	16.57		0.00	0.00	16.57	79.43	cotton bail clean
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	17.07		0.00	0.00	17.07	76.63	cotton bail clean
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	16.05		0.00	0.00	16.05	77.85	cotton bail clean
MW23	91.20	13.02		0.00	0.00	13.02	78.18	cotton bail clean
MW24	93.30	14.08		0.00	0.00	14.08	79.22	cotton bail clean
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	14.38		0.00	0.00	14.38	76.72	cotton bail clean
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	16.25		0.00	0.00	16.25	79.85	clean

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: May 9,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	23.40	23.20	0.20	0.16	23.24	76.76	
RW2/MW11	96.60	21.97	21.96	0.01	0.01	21.96	74.64	three diapers
MW1	100.80	19.29		0.00	0.00	19.29	81.51	diaper clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.68		0.00	0.00	15.68	82.92	cotton bail clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.17		0.00	0.00	18.17	81.33	diaper-trace
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	diaper
MW10	100.7	18.17		0.00	0.00	18.17	82.53	cotton bail clean
MW11/RW2	96.6	16.78	16.75	0.03	0.02	16.76	79.84	cotton bail trace
MW12	95.98	16.35		0.00	0.00	16.35	79.63	cotton bail clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	16.12		0.00	0.00	16.12	78.68	cotton bail-trace
MW15	97.60	16.94	16.92	0.02	0.02	16.92	80.68	two cotton bails
MW16	98.80	18.65	18.49	0.16	0.13	18.52	80.28	five cotton diape
MW17	99.4	18.39		0.00	0.00	18.39	81.01	diaper clean
MW18	96.00	16.80		0.00	0.00	16.80	79.20	cotton bail-trace
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20	13.02		0.00	0.00	13.02	78.18	cotton bail clean
MW24	93.30	14.62	14.50	0.12	0.10	14.52	78.78	cotton bail clean
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	16.60		0.00	0.00	16.60	79.50	cotton bail clean

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: May 15,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	23.17	23.13	0.04	0.03	23.14	76.86	
RW2/MW11	96.60	17.17	17.16	0.01	0.01	17.16	79.44	
MW1	100.80	19.25		0.00	0.00	19.25	81.55	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.67		0.00	0.00	15.67	82.93	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.15	18.13	0.02	0.02	18.13	81.37	cotton bail
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	trace
MW10	100.7	18.15		0.00	0.00	18.15	82.55	cotton bail-trace
MW11/RW2	96.6	16.2		0.00	0.00	16.20	80.40	cotton bail-trace
MW12	95.98	16.25		0.00	0.00	16.25	79.73	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	16.22		0.00	0.00	16.22	78.58	cotton bail-trace
MW15	97.60	17.75		0.00	0.00	17.75	79.85	cotton bail-trace
MW16	98.80	18.66	18.26	0.40	0.32	18.34	80.46	three cotton bail
MW17	99.4	18.28		0.00	0.00	18.28	81.12	cotton bail-trace
MW18	96.00	16.85		0.00	0.00	16.85	79.15	cotton bail-trace
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	18.22	18.18	0.04	0.03	18.19	75.51	cotton bail
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	19.16		0.00	0.00	19.16	74.74	cotton bail-trace
MW23	91.20	13.83	13.82	0.01	0.01	13.82	77.38	cotton bail
MW24	93.30	14.25	14.23	0.02	0.02	14.23	79.07	cotton bail
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	15.27	15.25	0.02	0.02	15.25	75.85	cotton bail
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: May 22,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	22.74	22.69	0.05	0.04	22.70	77.30	
RW2/MW11	96.60	22.42	22.42	0.00	0.00	22.42	74.18	trace
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.65		0.00	0.00	15.65	82.95	trace
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.11	18.10	0.01	0.01	18.10	81.40	cotton bail
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	trace
MW10	100.7	18.13		0.00	0.00	18.13	82.57	cotton bail-trace
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80	18.32	18.28	0.04	0.03	18.29	80.51	two cotton bails
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: June 19,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00			0.00	0.00	0.00		
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98	16.74		0.00	0.00	16.74	79.24	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	16.63		0.00	0.00	16.63	78.17	cotton bail-trace
MW15	97.60	18.13		0.00	0.00	18.13	79.47	clean
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00	17.20		0.00	0.00	17.20	78.80	clean
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	19.06	18.98	0.08	0.06	19.00	74.70	two cotton bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	17.70		0.00	0.00	17.70	76.20	cotton bail-trace
MW23	91.20	14.34	14.30	0.04	0.03	14.31	76.89	two cotton bails
MW24	93.30	15.18	15.16	0.02	0.02	15.16	78.14	cotton bail
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	16.00		0.00	0.00	16.00	75.10	cotton bail-trace
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: June 20,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00			0.00	0.00	0.00		
RW2/MW11	96.60	23.42	23.39	0.03	0.02	23.40	73.20	
MW1	100.80	19.30		0.00	0.00	19.30	81.50	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.70		0.00	0.00	15.70	82.90	trace
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.27	18.24	0.03	0.02	18.25	81.25	two cotton bails
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	trace
MW10	100.7	18.24	18.23	0.01	0.01	18.23	82.47	cotton bail
MW11/RW2	96.6	17.18		0.00	0.00	17.18	79.42	cotton bail trace
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80	18.92	18.76	0.16	0.13	18.79	80.01	three cotton bail
MW17	99.4	18.45		0.00	0.00	18.45	80.95	cotton bail-trace
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: June 27,1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	24.04	23.97	0.07	0.06	23.98	76.02	
RW2/MW11	96.60			0.00	0.00	0.00		
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7			0.00	0.00	0.00		
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80			0.00	0.00	0.00		
MW17	99.4			0.00	0.00	0.00		
MW18	96.00			0.00	0.00	0.00		
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 3, 1986

MONITORING WELL

NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	22.32	22.31	0.01	0.01	22.31	77.69	
RW2/MW11	96.60	23.38	22.45	0.93	0.74	22.64	73.96	
MW1	100.80	19.38		0.00	0.00	19.38	81.42	clean
MW2	99.40	19.14		0.00	0.00	19.14	80.26	
MW3	99.50	15.12		0.00	0.00	15.12	84.38	
MW4	98.60	15.70		0.00	0.00	15.70	82.90	
MW5	100.70	16.41		0.00	0.00	16.41	84.29	clean
MW6	99.30	16.36		0.00	0.00	16.36	82.94	
MW7	99.50	18.33	18.33	0.00	0.00	18.33	81.17	trace
MW8	102.10	19.70		0.00	0.00	19.70	82.40	
MW9	97.80	15.66		0.00	0.00	15.66	82.14	clean
MW10	100.7	18.19	18.18	0.01	0.01	18.18	82.52	
MW11/RW2	96.6	17.29		0.00	0.00	17.29	79.31	clean
MW12	95.98	16.95		0.00	0.00	16.95	79.03	clean
MW13	100.70	19.20		0.00	0.00	19.20	81.50	
MW14	94.80	16.95		0.00	0.00	16.95	77.85	clean
MW15	97.60	18.40		0.00	0.00	18.40	79.20	clean
MW16	98.80	19.05	18.95	0.10	0.08	18.97	79.83	two bails
MW17	99.4	18.59	18.58	0.01	0.01	18.58	80.82	
MW18	96.00	17.45		0.00	0.00	17.45	78.55	clean
MW19	102.20	16.96		0.00	0.00	16.96	85.24	
MW20	93.70	19.44	19.06	0.38	0.30	19.14	74.56	three bails
MW21	95.70	18.78		0.00	0.00	18.78	76.92	
MW22	93.90	18.00	18.00	0.00	0.00	18.00	75.90	trace
MW23	91.20	14.68	14.67	0.01	0.01	14.67	76.53	one bail
MW24	93.30	15.42	15.40	0.02	0.02	15.40	77.90	one bail
MW25	96.10	16.27		0.00	0.00	16.27	79.83	
MW26	93.20	18.65		0.00	0.00	18.65	74.55	
MW27	89.80			0.00	0.00	0.00		
MW28	88.80	20.60		0.00	0.00	20.60	68.20	
MW29	91.10	16.32	16.30	0.02	0.02	16.30	74.80	two bails
MW30	94.70	15.75		0.00	0.00	15.75	78.95	
MW31	92.50	16.49		0.00	0.00	16.49	76.01	
MW32	94.80	15.55		0.00	0.00	15.55	79.25	
MW33	96.10	17.10		0.00	0.00	17.10	79.00	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 10,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	21.56	21.55	0.01	0.01	21.55	78.45	
RW2/MW11	96.60	25.97	23.08	2.89	2.31	23.66	72.94	skimmed oil off
MW1	100.80	19.34		0.00	0.00	19.34	81.46	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.70		0.00	0.00	15.70	82.90	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.31	18.30	0.01	0.01	18.30	81.20	cotton bail
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.68		0.00	0.00	15.68	82.12	clean
MW10	100.7	18.11	18.11	0.00	0.00	18.11	82.59	cotton bail-trace
MW11/RW2	96.6	17.28		0.00	0.00	17.28	79.32	clean
MW12	95.98	16.9		0.00	0.00	16.90	79.08	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	16.90		0.00	0.00	16.90	77.90	
MW15	97.60	18.32		0.00	0.00	18.32	79.28	cotton bail-trace
MW16	98.80	18.92		0.00	0.00	18.92	79.88	cotton bail-trace
MW17	99.4	18.53		0.00	0.00	18.53	80.87	cotton bail-trace
MW18	96.00	17.38		0.00	0.00	17.38	78.62	cotton bail-trace
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	19.56	19.13	0.43	0.34	19.22	74.48	three cotton bail
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.01	18.00	0.01	0.01	18.00	75.90	cotton bail
MW23	91.20	14.67	14.66	0.01	0.01	14.66	76.54	cotton bail
MW24	93.30	15.70		0.00	0.00	15.70	77.60	cotton bail-trace
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	16.39	16.38	0.01	0.01	16.38	74.72	cotton bail
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.08		0.00	0.00	17.08	79.02	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 18,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	21.33	21.32	0.01	0.01	21.32	78.68	
RW2/MW11	96.60	25.00	22.50	2.50	2.00	23.00	73.60	
MW1	100.80	19.33		0.00	0.00	19.33	81.47	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.70		0.00	0.00	15.70	82.90	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.30		0.00	0.00	18.30	81.20	cotton bail-trace
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.70		0.00	0.00	15.70	82.10	clean
MW10	100.7	18.1	18.1	0.00	0.00	18.10	82.60	cotton bail-trace
MW11/RW2	96.6	17.23		0.00	0.00	17.23	79.37	clean
MW12	95.98	16.95		0.00	0.00	16.95	79.03	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	17.00		0.00	0.00	17.00	77.80	clean
MW15	97.60	18.35		0.00	0.00	18.35	79.25	cotton bail-trace
MW16	98.80	18.90	18.87	0.03	0.02	18.88	79.92	two cotton bails
MW17	99.4	18.51		0.00	0.00	18.51	80.89	cotton bail-trace
MW18	96.00	17.45		0.00	0.00	17.45	78.55	cotton bail-trace
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	23.95	19.93	4.02	3.22	20.73	72.97	
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.20	18.20	0.00	0.00	18.20	75.70	cotton bail-trace
MW23	91.20	14.81	14.80	0.01	0.01	14.80	76.40	cotton bail
MW24	93.30	15.49	15.48	0.01	0.01	15.48	77.82	cotton bail
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	16.74	16.73	0.01	0.01	16.73	74.37	cotton bail
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.09		0.00	0.00	17.09	79.01	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 24,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	20.51	20.49	0.02	0.02	20.49	79.51	
RW2/MW11	96.60	25.45	23.20	2.25	1.80	23.65	72.95	skimmed oil off
MW1	100.80	19.28		0.00	0.00	19.28	81.52	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.67		0.00	0.00	15.67	82.93	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.29		0.00	0.00	18.29	81.21	clean
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.65		0.00	0.00	15.65	82.15	clean
MW10	100.7	18.07	18.07	0.00	0.00	18.07	82.63	cotton bail-trace
MW11/RW2	96.6	17.23		0.00	0.00	17.23	79.37	clean
MW12	95.98	17		0.00	0.00	17.00	78.98	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	17.10		0.00	0.00	17.10	77.70	cotton bail-trace
MW15	97.60	18.40		0.00	0.00	18.40	79.20	clean
MW16	98.80	18.93	18.92	0.01	0.01	18.92	79.88	cotton bail
MW17	99.4	18.52		0.00	0.00	18.52	80.88	clean
MW18	96.00	17.50		0.00	0.00	17.50	78.50	cotton bail-trace
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	24.45	20.35	4.10	3.28	21.17	72.53	thirty bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.44		0.00	0.00	18.44	75.46	cotton bail-trace
MW23	91.20	14.96		0.00	0.00	14.96	76.24	cotton bail-trace
MW24	93.30	15.60	15.59	0.01	0.01	15.59	77.71	cotton bail
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	17.94	17.93	0.01	0.01	17.93	73.17	cotton bail
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.05		0.00	0.00	17.05	79.05	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: July 31,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	19.92	19.91	0.01	0.01	19.91	80.09	
RW2/MW11	96.60	18.41	17.62	0.79	0.63	17.78	78.82	skimmed oil off
MW1	100.80	19.23		0.00	0.00	19.23	81.57	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.66		0.00	0.00	15.66	82.94	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.20		0.00	0.00	18.20	81.30	clean
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.64		0.00	0.00	15.64	82.16	clean
MW10	100.7	18.03		0.00	0.00	18.03	82.67	clean
MW11/RW2	96.6	16.65		0.00	0.00	16.65	79.95	clean
MW12	95.98	16.75		0.00	0.00	16.75	79.23	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	17.04		0.00	0.00	17.04	77.76	clean
MW15	97.60	18.13		0.00	0.00	18.13	79.47	clean
MW16	98.80	18.70	18.58	0.12	0.10	18.60	80.20	two cotton bails
MW17	99.4	18.4		0.00	0.00	18.40	81.00	clean
MW18	96.00	17.35		0.00	0.00	17.35	78.65	clean
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	22.30	21.42	0.88	0.70	21.60	72.10	seven cotton bail
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.60	18.59	0.01	0.01	18.59	75.31	cotton bail-trace
MW23	91.20	15.09		0.00	0.00	15.09	76.11	clean
MW24	93.30	15.64		0.00	0.00	15.64	77.66	cotton bail-trace
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	17.65	17.64	0.01	0.01	17.64	73.46	cotton bail
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.04		0.00	0.00	17.04	79.06	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Aug. 15,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	18.03	17.84	0.19	0.15	17.88	82.12	
RW2/MW11	96.60	28.52	27.15	1.37	1.10	27.42	69.18	
MW1	100.80	19.32		0.00	0.00	19.32	81.48	clean
MW2	99.40	19.41		0.00	0.00	19.41	79.99	
MW3	99.50	15.19		0.00	0.00	15.19	84.31	
MW4	98.60	15.67		0.00	0.00	15.67	82.93	
MW5	100.70	16.42		0.00	0.00	16.42	84.28	
MW6	99.30	16.41		0.00	0.00	16.41	82.89	
MW7	99.50	18.44		0.00	0.00	18.44	81.06	trace
MW8	102.10	19.76		0.00	0.00	19.76	82.34	
MW9	97.80	15.66		0.00	0.00	15.66	82.14	clean
MW10	100.7	18.03		0.00	0.00	18.03	82.67	clean
MW11/RW2	96.6	18.14	18.12	0.02	0.02	18.12	78.48	
MW12	95.98	17.65		0.00	0.00	17.65	78.33	clean
MW13	100.70	19.25		0.00	0.00	19.25	81.45	
MW14	94.80	17.86		0.00	0.00	17.86	76.94	clean
MW15	97.60	19.06		0.00	0.00	19.06	78.54	clean
MW16	98.80	19.41	19.32	0.09	0.07	19.34	79.46	
MW17	99.4	18.67		0.00	0.00	18.67	80.73	clean
MW18	96.00	18.03		0.00	0.00	18.03	77.97	trace
MW19	102.20	17.00		0.00	0.00	17.00	85.20	
MW20	93.70	25.20	21.50	3.70	2.96	22.24	71.46	
MW21	95.70	19.50		0.00	0.00	19.50	76.20	
MW22	93.90	19.16	19.15	0.01	0.01	19.15	74.75	
MW23	91.20	15.65		0.00	0.00	15.65	75.55	clean
MW24	93.30	16.12	16.11	0.01	0.01	16.11	77.19	
MW25	96.10	16.89		0.00	0.00	16.89	79.21	
MW26	93.20	19.92		0.00	0.00	19.92	73.28	
MW27	89.80	21.23		0.00	0.00	21.23	68.57	
MW28	88.80	23.98		0.00	0.00	23.98	64.82	
MW29	91.10	18.28	18.27	0.01	0.01	18.27	72.83	
MW30	94.70	16.33		0.00	0.00	16.33	78.37	
MW31	92.50	17.33		0.00	0.00	17.33	75.17	
MW32	94.80	16.24		0.00	0.00	16.24	78.56	
MW33	96.10	17.82		0.00	0.00	17.82	78.28	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Aug. 21, 1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	17.88	17.78	0.10	0.08	17.80	82.20	
RW2/MW11	96.60	26.40	24.45	1.95	1.56	24.84	71.76	
MW1	100.80	19.30		0.00	0.00	19.30	81.50	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.66		0.00	0.00	15.66	82.94	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.33		0.00	0.00	18.33	81.17	trace
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.64		0.00	0.00	15.64	82.16	
MW10	100.7	18.04		0.00	0.00	18.04	82.66	trace
MW11/RW2	96.6	17.7	17.69	0.01	0.01	17.69	78.91	
MW12	95.98	17.48		0.00	0.00	17.48	78.50	trace
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	18.00		0.00	0.00	18.00	76.80	clean
MW15	97.60	18.21		0.00	0.00	18.21	79.39	clean
MW16	98.80	19.13	19.08	0.05	0.04	19.09	79.71	two diapers
MW17	99.4	18.53		0.00	0.00	18.53	80.87	cotton bail-trace
MW18	96.00	17.92	17.91	0.01	0.01	17.91	78.09	
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	29.15	23.76	5.39	4.31	24.84	68.86	seven diapers
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	19.68	19.65	0.03	0.02	19.66	74.24	cotton bail
MW23	91.20	16.18		0.00	0.00	16.18	75.02	trace
MW24	93.30	16.20		0.00	0.00	16.20	77.10	cotton bail-trace
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	18.90	18.89	0.01	0.01	18.89	72.21	diaper
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.46		0.00	0.00	17.46	78.64	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Aug 28,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	26.95	26.91	0.04	0.03	26.92	73.08	skimmed oil off
RW2/MW11	96.60	26.03	25.32	0.71	0.57	25.46	71.14	skimmed oil off
MW1	100.80	19.80		0.00	0.00	19.80	81.00	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.83		0.00	0.00	15.83	82.77	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.72	18.68	0.04	0.03	18.69	80.81	cotton bail
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.77		0.00	0.00	15.77	82.03	clean
MW10	100.7	18.5	18.49	0.01	0.01	18.49	82.21	cotton bail
MW11/RW2	96.6	18.05	18.03	0.02	0.02	18.03	78.57	cotton bail
MW12	95.98	17.72		0.00	0.00	17.72	78.26	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60	19.12		0.00	0.00	19.12	78.48	cotton bails-trac
MW16	98.80	19.45	19.39	0.06	0.05	19.40	79.40	two cotton bails
MW17	99.4	19.01		0.00	0.00	19.01	80.39	clean
MW18	96.00	18.15	18.12	0.03	0.02	18.13	77.87	two bails
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	24.07	21.42	2.65	2.12	21.95	71.75	eleven bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	19.94	19.85	0.09	0.07	19.87	74.03	three bails
MW23	91.20	16.38		0.00	0.00	16.38	74.82	two bails-trace
MW24	93.30	16.30		0.00	0.00	16.30	77.00	one bail-trace
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	19.15	19.00	0.15	0.12	19.03	72.07	two bails
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.79		0.00	0.00	17.79	78.31	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Sept. 4, 1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	23.96	23.69	0.27	0.22	23.74	76.26	
RW2/MW11	96.60	26.24	25.22	1.02	0.82	25.42	71.18	skimmed oil off
MW1	100.80	19.64		0.00	0.00	19.64	81.16	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.21		0.00	0.00	15.21	83.39	clean
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.47		0.00	0.00	18.47	81.03	trace
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.21		0.00	0.00	15.21	82.59	clean
MW10	100.7	18.21		0.00	0.00	18.21	82.49	cotton bail-trace
MW11/RW2	96.6	17.91	17.9	0.01	0.01	17.90	78.70	cotton bail
MW12	95.98	17.58		0.00	0.00	17.58	78.40	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	17.90		0.00	0.00	17.90	76.90	clean
MW15	97.60	19.11		0.00	0.00	19.11	78.49	cotton bail-trace
MW16	98.80	19.38	19.32	0.06	0.05	19.33	79.47	two cotton bails
MW17	99.4	18.86	18.85	0.01	0.01	18.85	80.55	cotton bail
MW18	96.00	18.10	18.01	0.09	0.07	18.03	77.97	two cotton bails
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	21.42	20.73	0.69	0.55	20.87	72.83	five cotton bails
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	19.17	19.15	0.02	0.02	19.15	74.75	two bails
MW23	91.20	15.77		0.00	0.00	15.77	75.43	trace
MW24	93.30	16.00		0.00	0.00	16.00	77.30	clean
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	18.29	18.25	0.04	0.03	18.26	72.84	two bails
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.65		0.00	0.00	17.65	78.45	

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Sept. 12,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	21.05	20.95	0.10	0.08	20.97	79.03	skimmed oil off
RW2/MW11	96.60	26.40	24.45	1.95	1.56	24.84	71.76	skimmed oil off
MW1	100.80	19.35		0.00	0.00	19.35	81.45	
MW2	99.40	19.21		0.00	0.00	19.21	80.19	
MW3	99.50	15.12		0.00	0.00	15.12	84.38	
MW4	98.60	15.66		0.00	0.00	15.66	82.94	
MW5	100.70	16.42		0.00	0.00	16.42	84.28	
MW6	99.30	16.37		0.00	0.00	16.37	82.93	
MW7	99.50	18.30		0.00	0.00	18.30	81.20	cotton bail-trace
MW8	102.10	19.70		0.00	0.00	19.70	82.40	
MW9	97.80	15.65		0.00	0.00	15.65	82.15	
MW10	100.7	18.1	18.1	0.00	0.00	18.10	82.60	cotton bail-trace
MW11/RW2	96.6	17.6	17.6	0.00	0.00	17.60	79.00	cotton bail-trace
MW12	95.98	17.28		0.00	0.00	17.28	78.70	clean
MW13	100.70	19.20		0.00	0.00	19.20	81.50	
MW14	94.80	17.55		0.00	0.00	17.55	77.25	clean
MW15	97.60	18.67		0.00	0.00	18.67	78.93	cotton bail-trace
MW16	98.80	19.09	19.05	0.04	0.03	19.06	79.74	cotton bail
MW17	99.4	18.57		0.00	0.00	18.57	80.83	cotton bail trace
MW18	96.00	17.77	17.70	0.07	0.06	17.71	78.29	two cotton bails
MW19	102.20	17.00		0.00	0.00	17.00	85.20	
MW20	93.70	19.75		0.00	0.00	19.75	73.95	clean
MW21	95.70	18.84		0.00	0.00	18.84	76.86	
MW22	93.90	18.16		0.00	0.00	18.16	75.74	cotton bail trace
MW23	91.20	15.75		0.00	0.00	15.75	75.45	
MW24	93.30	15.75		0.00	0.00	15.75	77.55	
MW25	96.10	16.07		0.00	0.00	16.07	80.03	
MW26	93.20	18.92		0.00	0.00	18.92	74.28	
MW27	89.80	17.75		0.00	0.00	17.75	72.05	
MW28	88.80	18.20		0.00	0.00	18.20	70.60	
MW29	91.10	18.45		0.00	0.00	18.45	72.65	cotton bail-trace
MW30	94.70	16.08		0.00	0.00	16.08	78.62	
MW31	92.50	16.90		0.00	0.00	16.90	75.60	
MW32	94.80	15.90		0.00	0.00	15.90	78.90	
MW33	96.10	17.40		0.00	0.00	17.40	78.70	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Sept. 18,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	28.02	27.68	0.34	0.27	27.75	72.25	skimmed oil off
RW2/MW11	96.60	26.03	25.52	0.51	0.41	25.62	70.98	skimmed oil off
MW1	100.80	19.25		0.00	0.00	19.25	81.55	
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.65		0.00	0.00	15.65	82.95	
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.17		0.00	0.00	18.17	81.33	cotton bail-trace
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.62		0.00	0.00	15.62	82.18	
MW10	100.7	18.08	18.07	0.01	0.01	18.07	82.63	cotton bail
MW11/RW2	96.6	17.33		0.00	0.00	17.33	79.27	clean
MW12	95.98	16.88		0.00	0.00	16.88	79.10	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	17.11		0.00	0.00	17.11	77.69	clean
MW15	97.60	18.33	18.33	0.00	0.00	18.33	79.27	clean
MW16	98.80	18.85	18.82	0.03	0.02	18.83	79.97	cotton bail
MW17	99.4	18.38		0.00	0.00	18.38	81.02	cotton bail-trace
MW18	96.00	17.46	17.43	0.03	0.02	17.44	78.56	cotton bail
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	19.18		0.00	0.00	19.18	74.52	cleanclean
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.10		0.00	0.00	18.10	75.80	clean
MW23	91.20	15.08		0.00	0.00	15.08	76.12	clean
MW24	93.30	15.50		0.00	0.00	15.50	77.80	clean
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	18.10		0.00	0.00	18.10	73.00	clean
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10	17.38		0.00	0.00	17.38	78.72	clean

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Sept 25,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	20.71	20.63	0.08	0.06	20.65	79.35	skimmed oil off
RW2/MW11	96.60	25.38	24.04	1.34	1.07	24.31	72.29	skimmed oil off
MW1	100.80	19.22		0.00	0.00	19.22	81.58	clean
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60	15.65		0.00	0.00	15.65	82.95	
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50	18.20		0.00	0.00	18.20	81.30	clean
MW8	102.10			0.00	0.00	0.00		
MW9	97.80	15.66		0.00	0.00	15.66	82.14	
MW10	100.7	18.07	18.06	0.01	0.01	18.06	82.64	cotton bail
MW11/RW2	96.6	17.21		0.00	0.00	17.21	79.39	clean
MW12	95.98	16.83		0.00	0.00	16.83	79.15	clean
MW13	100.70			0.00	0.00	0.00		
MW14	94.80	16.77		0.00	0.00	16.77	78.03	clean
MW15	97.60	18.25		0.00	0.00	18.25	79.35	clean
MW16	98.80	18.83	18.81	0.02	0.02	18.81	79.99	cotton bail
MW17	99.4	18.42		0.00	0.00	18.42	80.98	clean
MW18	96.00	17.31	17.30	0.01	0.01	17.30	78.70	cotton bail
MW19	102.20			0.00	0.00	0.00		
MW20	93.70	18.41		0.00	0.00	18.41	75.29	clean
MW21	95.70			0.00	0.00	0.00		
MW22	93.90	18.63		0.00	0.00	18.63	75.27	clean
MW23	91.20	14.50		0.00	0.00	14.50	76.70	clean
MW24	93.30	15.63		0.00	0.00	15.63	77.67	clean
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10	16.18		0.00	0.00	16.18	74.92	clean
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Oct. 3,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	24.51	24.43	0.08	0.06	24.45	75.55	skimmed oil off
RW2/MW11	96.60	23.74	23.63	0.11	0.09	23.65	72.95	
MW1	100.80			0.00	0.00	0.00		
MW2	99.40			0.00	0.00	0.00		
MW3	99.50			0.00	0.00	0.00		
MW4	98.60			0.00	0.00	0.00		
MW5	100.70			0.00	0.00	0.00		
MW6	99.30			0.00	0.00	0.00		
MW7	99.50			0.00	0.00	0.00		
MW8	102.10			0.00	0.00	0.00		
MW9	97.80			0.00	0.00	0.00		
MW10	100.7	18.17	18.15	0.02	0.02	18.15	82.55	bailed
MW11/RW2	96.6			0.00	0.00	0.00		
MW12	95.98			0.00	0.00	0.00		
MW13	100.70			0.00	0.00	0.00		
MW14	94.80			0.00	0.00	0.00		
MW15	97.60			0.00	0.00	0.00		
MW16	98.80	18.61	18.59	0.02	0.02	18.59	80.21	one bail
MW17	99.4			0.00	0.00	0.00		
MW18	96.00	17.07	17.05	0.02	0.02	17.05	78.95	two bails
MW19	102.20			0.00	0.00	0.00		
MW20	93.70			0.00	0.00	0.00		
MW21	95.70			0.00	0.00	0.00		
MW22	93.90			0.00	0.00	0.00		
MW23	91.20			0.00	0.00	0.00		
MW24	93.30			0.00	0.00	0.00		
MW25	96.10			0.00	0.00	0.00		
MW26	93.20			0.00	0.00	0.00		
MW27	89.80			0.00	0.00	0.00		
MW28	88.80			0.00	0.00	0.00		
MW29	91.10			0.00	0.00	0.00		
MW30	94.70			0.00	0.00	0.00		
MW31	92.50			0.00	0.00	0.00		
MW32	94.80			0.00	0.00	0.00		
MW33	96.10			0.00	0.00	0.00		

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER GRADIENT DATA

CLIENT: TEXAS-NEW MEXICO PIPELINE
LOCATION: HOBBS, NEW MEXICO
DATE: Oct. 8,1986

MONITORING WELL NO.	TOP WELL ELEV.	DTW	DTP	PT	PT X.8	ADJ. DTW	ELEV. WATER	COMMENTS
RW 1	100.00	21.82	21.75	0.07	0.06	21.76	78.24	
RW2/MW11	96.60	23.79	23.74	0.05	0.04	23.75	72.85	
MW1	100.80	19.26		0.00	0.00	19.26	81.54	
MW2	99.40	19.87		0.00	0.00	19.87	79.53	
MW3	99.50	15.08		0.00	0.00	15.08	84.42	
MW4	98.60	15.70		0.00	0.00	15.70	82.90	
MW5	100.70	16.40		0.00	0.00	16.40	84.30	
MW6	99.30	16.37		0.00	0.00	16.37	82.93	
MW7	99.50	18.20		0.00	0.00	18.20	81.30	
MW8	102.10	19.61		0.00	0.00	19.61	82.49	
MW9	97.80	15.65		0.00	0.00	15.65	82.15	
MW10	100.7	18.12		0.00	0.00	18.12	82.58	
MW11/RW2	96.6	16.98		0.00	0.00	16.98	79.62	
MW12	95.98	16.55		0.00	0.00	16.55	79.43	
MW13	100.70	19.04		0.00	0.00	19.04	81.66	
MW14	94.80	16.36		0.00	0.00	16.36	78.44	
MW15	97.60	18.01		0.00	0.00	18.01	79.59	
MW16	98.80	18.68		0.00	0.00	18.68	80.12	
MW17	99.4	19.35		0.00	0.00	19.35	80.05	
MW18	96.00	17.01		0.00	0.00	17.01	78.99	
MW19	102.20	16.94		0.00	0.00	16.94	85.26	
MW20	93.70	17.37		0.00	0.00	17.37	76.33	
MW21	95.70	17.62		0.00	0.00	17.62	78.08	
MW22	93.90	16.95		0.00	0.00	16.95	76.95	
MW23	91.20	13.86		0.00	0.00	13.86	77.34	
MW24	93.30	14.86		0.00	0.00	14.86	78.44	
MW25	96.10	15.99		0.00	0.00	15.99	80.11	
MW26	93.20	17.63		0.00	0.00	17.63	75.57	
MW27	89.80	16.32		0.00	0.00	16.32	73.48	
MW28	88.80	16.76		0.00	0.00	16.76	72.04	
MW29	91.10	15.10		0.00	0.00	15.10	76.00	
MW30	94.70	15.40		0.00	0.00	15.40	79.30	
MW31	92.50	15.82		0.00	0.00	15.82	76.68	
MW32	94.80	15.12		0.00	0.00	15.12	79.68	
MW33	96.10	16.77		0.00	0.00	16.77	79.33	

APPENDIX II

GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

Consulting Offices:
Needham, MA — Redondo Beach, CA
Chadds Ford, PA — Concord, CA
Novi, MI

Laboratory Test Results

10/11/84
Report No. 20-2050-1
Submitted to: Cliff Harper
Groundwater Technology
5047 Clayton Rd.
Concord, CA 94519

The attached report covers water samples 12442-12443 taken by C. Harper at site 20-2050, Monument, New Mexico and analyzed by GC/FID Static Headspace Analysis for volatile hydrocarbons, analyst J.P.M.

Method Detection Limits (MDL) listed are the levels above which quantitation is considered reliable: benzene and toluene 1 ppb, ethylbenzene 2 ppb, total xylenes 6 ppb, total aliphatic hydrocarbons and miscellaneous aromatics 20 ppb.

If noted on report, MDL is increased by a factor of 44 for dilutions made in order to maintain calibrated range. Precision for levels above 10 times MDL is 10%. Precision at MDL equals 30%. Hexane and ortho-xylene used as calibration standards for aliphatic hydrocarbons and miscellaneous aromatics, respectively.

Respectfully submitted,

Michael D. Webb
Technical Director

VOA Report No.
20-2050-1

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL
12442	SW	10/4/84	10/9/84	ND	ND	ND	ND	ND	ND	ND
12443	FDW	10/4/84	10/9/84	ND	ND	ND	ND	ND	ND	ND

*NOTES:

ND = NONE DETECTED
SW = SCHOOL WELL
FDW = FIRE DEPARTMENT WELL

GROUNDWATER TECHNOLOGY LABORATORY
#4 Mill Street, Greenville, New Hampshire 03048

VOA Report No.

20-2050-2

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL	
12509	MW1	10/11/84	10/20/84	ND	ND	ND	ND	TRACE	ND	TRACE	
12513	MW2	10/11/84	10/22/84	ND	ND	ND	ND	TRACE	ND	TRACE	*5
12511	MW3	10/11/84	10/22/84	ND	ND	ND	ND	29	ND	29	
12514	MW4	10/11/84	10/22/84	221	102	10	26	357	TRACE	716	*2
12512	MW5	10/11/84	10/22/84	ND	ND	ND	ND	ND	ND	ND	
12515	MW6	10/11/84	10/22/84	ND	ND	ND	ND	TRACE	ND	TRACE	
12508	MW7	10/11/84	10/20/84	16600	10400	669	1710	3520	1570	34500	*1,4
12510	MW8	10/11/84	10/20/84	2	ND	ND	ND	TRACE	ND	2	

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND(S) DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION

1 = METHANE DETECTED AT 10-100 PPB.
2 = METHANE DETECTED AT 100-1000 PPB.
4 = SAMPLE DILUTED; MDL TIMES 44
5 = UNCATEGORIZED COMPOUND(S) PRESENT.

GROUNDWATER TECHNOLOGY LABORATORY
44 Mill Street, Greenville, New Hampshire 03048

VOA Report No.
20-2050-3

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL	
12533	W14	10/16/84	10/18/84	15800	9710	1870	1480	6410	878	36200	*5
12534	W15	10/16/84	10/18/84	17300	11100	1970	1960	6370	1160	40000	*5
12535	W2	10/16/84	10/18/84	TRACE	2	ND	ND	TRACE	ND	2	*5
12536	W8	10/16/84	10/18/84	ND	ND	ND	ND	ND	ND	ND	
12537	W.W.	10/16/84	10/18/84	ND	ND	ND	ND	ND	ND	ND	
12538	BLANK	10/16/84	10/18/84	ND	ND	ND	ND	ND	ND	ND	

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND(S) DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION
W.W. = WATER WELL

5 = UNCATEGORIZED COMPOUND(S) PRESENT.

GROUNDWATER TECHNOLOGY LABORATORY
#4 Mill Street, Greenville, New Hampshire 03048

VOA Report No.

20-2050-4

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL
12551	MW3	10/17/84	10/24/84	ND	ND	ND	ND	TRACE	ND	TRACE *1
12549	MW4	10/17/84	10/24/84	ND	ND	ND	ND	39	ND	39
12554	MW5	10/17/84	10/24/84	ND	ND	ND	ND	TRACE	ND	TRACE
12548	MW6	10/17/84	10/23/84	ND	ND	ND	ND	81	83	164
12550	MW9	10/17/84	10/24/84	ND	ND	ND	ND	131	64	195
12553	MW13	10/17/84	10/24/84	ND	TRACE	ND	ND	ND	ND	TRACE
12552	MW19	10/17/84	10/24/84	ND	ND	ND	ND	ND	ND	ND

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND(S) DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION

1 = METHANE DETECTED AT 10-100 PPB.

GROUNDWATER TECHNOLOGY LABORATORY
44 Mill Street, Greenville, New Hampshire 03048

VOA Report No.

20-2050-5

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL	
12627	MW3	10/25/84	10/31/84	ND	ND	ND	ND	180	ND	180	*1
12628	MW4	10/25/84	10/31/84	1020	82	ND	53	2290	36	3480	*7
12629	MW5	10/25/84	10/31/84	ND	ND	ND	ND	TRACE	ND	TRACE	*6
12630	MW6	10/25/84	10/31/84	ND	ND	ND	ND	TRACE	ND	TRACE	
12631	MW8	10/25/84	10/31/84	ND	ND	ND	ND	ND	ND	ND	
12632	MW9	10/25/84	10/31/84	6450	3320	296	430	258	3760	14500	
12633	MW13	10/25/84	10/31/84	ND	ND	ND	ND	ND	ND	ND	
12634	MW15	10/25/84	10/31/84	19100	12100	2020	1690	10800	1940	46500	
12635	MW17	10/25/84	10/31/84	1520	79	ND	148	866	154	2770	*2

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND(S) DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION

1 = METHANE DETECTED AT 10-100 PPB.
2 = METHANE DETECTED AT 100-1000 PPB.
6 = UNCATEGORIZED COMPOUND PRESENT; POSSIBLY NOT GASOLINE RELATED.
7 = TOTAL ALIPHATICS INCLUDES METHANE.

SAMPLES OF MW12, 18, & 19 WERE BROKEN VIA SHIPPING.

GROUNDWATER TECHNOLOGY LABORATORY
84 Mill Street, Greenville, New Hampshire 03048

20-2050-6

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL
12809	MWW	11/6/84	11/12/84	ND	ND	ND	ND	ND	ND	ND
12810	MWWS	11/6/84	11/12/84	ND	ND	ND	ND	ND	ND	ND
12811	MW 28	11/6/84	11/12/84	ND	ND	ND	ND	ND	ND	ND
12812	BLNK	11/6/84	11/12/84	ND	ND	ND	ND	ND	ND	ND

*NOTES:

ND = NONE DETECTED
MWW = MUNI WATER WELL
MWWS = MUNI WATER WELL STANDBY
BLNK = BLANK

Oil Recovery Systems

GROUNDWATER TECHNOLOGY LABORATORY

4 MILL STREET, GREENVILLE, NEW HAMPSHIRE 03048

GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

Consulting Offices:
Needham, MA — Redondo Beach, CA
Chadds Ford, PA — Concord, CA
Novi, MI

Laboratory Test Results

1/15/85
Report No. 20-2050-8
Submitted to: Cliff Harper
Groundwater Technology
5047 Clayton Rd.
Concord, CA 94519

The attached report covers water samples 13536-13546 taken by C. Harper at site 20-2050, Monument, New Mexico and analyzed by GC/FID Static Headspace Analysis for volatile hydrocarbons, analysts D.G. and J.P.

Method Detection Limits (MDL) listed are the levels above which quantitation is considered reliable: benzene and toluene 1 ppb, ethylbenzene 2 ppb, total xylenes 6 ppb. The level for reliable quantitation for total aliphatic hydrocarbons and miscellaneous aromatics is 20 ppb.

If noted on report, MDL is increased by a factor of 44 for dilutions made in order to maintain calibrated range. Precision for levels above 10 times MDL is 10%. Precision at MDL equals 30%. Hexane and ortho-xylene used as calibration standards for aliphatic hydrocarbons and miscellaneous aromatics, respectively.

Respectfully submitted,

Michael D. Webb

Michael D. Webb
Technical Director

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL	
13270	MW 2	12/14/84	12/18/84	ND	ND	ND	ND	21	ND	21	
13271	MW 3	12/14/84	12/19/84	ND	ND	ND	ND	TRACE	ND	TRACE	
13272	MW 4	12/14/84	12/19/84	403	97	ND	40	280	39	859	*1
13273	MW 5	12/14/84	12/19/84	ND	ND	ND	ND	ND	ND	ND	
13274	MW 6	12/14/84	12/19/84	ND	ND	ND	ND	TRACE	ND	TRACE	
13275	MW 8	12/14/84	12/19/84	ND	ND	ND	ND	ND	ND	ND	
13276	MW 9	12/14/84	12/20/84	1080	233	ND	283	603	228	2430	*2
13277	MW 13	12/14/84	12/20/84	ND	ND	ND	ND	ND	ND	ND	
13278	MW 17	12/14/84	12/20/84	84	7	ND	38	399	39	570	*2
13279	MW 18	12/14/84	12/20/84	752	56	ND	62	32	45	947	
13280	MW 19	12/14/84	12/20/84	ND	ND	ND	ND	ND	ND	ND	
13281	MW 25	12/14/84	12/20/84	ND	ND	ND	ND	TRACE	ND	TRACE	
13282	MW 26	12/14/84	12/20/84	716	62	ND	58	29	73	938	
13283	MW 27	12/14/84	12/20/84	ND	ND	ND	ND	21	ND	21	
13284	MW 28	12/14/84	12/20/84	ND	ND	ND	ND	TRACE	ND	TRACE	
13285	MW 30	12/14/84	12/20/84	ND	ND	ND	ND	TRACE	ND	TRACE	
13286	MW 31	12/14/84	12/20/84	ND	ND	ND	ND	ND	ND	ND	*5

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION.
1 = METHANE DETECTED AT 10-100 PPB.
2 = METHANE DETECTED AT 100-1000 PPB.
5 = TWO UNCATEGORIZED COMPOUNDS PRESENT AT LESS THAN 50 PPB.

REPORT NO. 20-2050-7

Oil Recovery Systems

GROUNDWATER TECHNOLOGY LABORATORY
4 MILL STREET, GREENVILLE, NEW HAMPSHIRE 03048

HYDROCARBONS IN WATER µg/L (ppb)

SAMPLE NO.	I.D.	DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	C4-C12 ALIPHATIC HYDROCARBONS	MISC. AROMATICS C7-C10	TOTAL
13536	BLANK	1/9/85	1/14/85	ND	ND	ND	ND	TRACE	ND	TRACE
13537	OCD 1	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13538	OCD 2	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13539	OCD 3	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13540	OCD 4	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13541	OCD 6	1/9/85	1/14/85	ND	ND	ND	ND	TRACE	ND	TRACE
13542	MW 12	1/9/85	1/14/85	3780	132	ND	95	1470	65	5550 *2
13543	MW 25	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13544	MW 26	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13545	MW 27	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND
13546	MW 28	1/9/85	1/14/85	ND	ND	ND	ND	ND	ND	ND

*NOTES:

ND = NONE DETECTED
TRACE = COMPOUND DETECTED BUT BELOW LEVEL FOR RELIABLE QUANTITATION.

2 = METHANE DETECTED AT 100-1000 PPB.

REPORT NO. 20-2050-8

Oil Recovery Systems

GROUNDWATER TECHNOLOGY LABORATORY
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Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

Laboratory Test Results

6/25/86
Report No. 20-2050-9
Submitted to: Eddie Seay
Texas-New Mexico Pipeline Co.
P.O. Box 2528
Hobbs, N.M. 88240

Sample Identification:
The attached report covers water samples #27053-27054 taken by E. Seay using 40 ml septum-capped glass vials at site #20-2050, Hobbs, New Mexico.

Method:
Analysis was performed for purgeable aromatic priority pollutants and xylenes by purge and trap gas chromatography with flame ionization detection as per EPA Method 602. Quantification was performed on a very polar open tubular fused silica capillary column which fractionates aliphatics (up to C12) away from volatile aromatics. Qualitative confirmation was performed for all samples on a dissimilar column. Chromatographic conditions are referenced in GTL Method Code 103. Hexane and ortho-xylene are used as calibration standards for the aliphatic hydrocarbons and miscellaneous aromatics, respectively, if reported.

Minimum Detection Limit (MDL) at 5 times background is 0.5 ppb for all parameters. The level for reliable quantitation for the summed groups such as aliphatics is 20 ppb. Samples diluted in order to maintain the calibrated range are so indicated by a footnote giving the factor by which the MDL is raised.

Sampling and sample handling and preservation are specified by this laboratory to be as per EPA Method 602. Any irregularities are referenced in the attached quality assurance report.

Results:
Results are reported in ppb (ug/l).

Prepared by:
Eileen Foley
Analytical Program Manager

J.P./S.E.B.
Analysts

cc. Jim Goetz

GROUNDWATER TECHNOLOGY LABORATORY

ANALYTICAL & CONSULTING SERVICES
Division of Oil Recovery Systems, Inc.
4 Mill St., Greenville, NH 03048
Tel: (603) 878-2500

HYDROCARBONS IN WATER ug/L (ppb)
REPORT NO. 20-2050-9

Sample I.D.		DATE SAMPLED	DATE RUN	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	TOTAL BTEX
27053	NW	6/17/86	6/21/86	2	ND	ND	ND	2
27054	MCW	6/16/86	6/20/86	5	ND	ND	ND	5

*NOTES:

ND = BELOW DETECTION LIMIT

TOTAL BTEX = THE SUM OF BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENES, ROUNDED TO THREE SIGNIFICANT FIGURES.

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HYDROCARBONS IN WATER ug/l
REPORT NO. 20-2050-9

SAMPLE NO.	I.D.	C4-C12 ALIPHATIC HYDROCARBONS	MISC AROMATICS C8-C10	TOTAL
27053	NW	23	22	47
27054	MCW	2	ND	7

NOTES:

TOTAL = THE SUM OF THE TOTAL BTEX AND THE ABOVE PARAMETERS.

ND = BELOW DETECTION LIMIT
NW = NEW WELL
MCW = MAIN COMMUNITY WELL

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Quality Assurance Documentation

Statement of Sample Integrity:
The samples in this data set meet the Groundwater Technology Laboratory criteria for physical integrity as per GTL Method Code 103 throughout the sampling, handling and analytical process.

Exception: Sample 27054 contained bubbles.

Quality Assurance Specifications:
The data in this set conforms to the GTL Quality Assurance program and provisions specified in EPA Method 602 including daily calibration with freshly made standards, blanks before trace level samples, surrogate spikes, spikes in untested matrices, a minimum of 10% duplicates and a minimum of 6% reference samples traceable to the U.S. EPA.

Certification:
The data in this report have been checked for accuracy and completeness.

Respectfully Submitted,

Michael D. Webb
Technical Director

APPENDIX III

AGPL
10/23/86

SUMMARY OF OIL RECOVERY

MONUMENT, NM

	RECOVERY WELL #1			RECOVERY WELL #2		
DATE	TOTALIZER READING	GALLONS RECOVERY	GALLONS CUM	TOTALIZER READING	GALLONS RECOVERY	GALLONS CUM
BEGINNING	4					
10-24-84	1304	1300	1300			
11-4-84	2050	746	2046			
11-13-84	3135	1135	3181			
11-18-84	3771	586	3767			
11-24-84	4184	413	4180			
12-1-84	4967	783	4963			
12-7-84	5609	642	5605			
12-14-84	6136	527	6132			
12-21-84	6223	87	6219			
12-28-84	6609	386	6605			
1-4-85	7016	407	7012	-0-		
1-12-85	7374	358	7370	265	265	265
1-18-85	7527	153	7523	557	292	557
1-25-85	7696	159	7692	1061	504	
1-30-85	7856	170	7852	1383	322	
2-15-85	8313	457	8309	2247	864	
3-1-85	8567	254	8563	3080	833	
3-15-85	8679	112	8675	3757	677	
4-1-85	8995	316	8991	4504	747	
DEDUCT	3729 GALLONS OF WATER MEASURED AS OIL					
4-13-85	13092	363	9359	4917	413	4917
4-30-85	13510	418	9777	5434	517	
5-14-85	13633	123	9900	5956	522	
5-28-85	13698	65	9965	6449	493	
6-12-85	13718	20	9985	6866	417	
7-1-85	13833	115	10100	6978	112	
8-1-85	13894	61	10161	7400	422	
9-2-85	13914	20	10181	7864	464	
10-3-85	14014	100	10281	8446	582	8446
10-31-85	14040	26	10307	8545	99	
12-3-85	14040	0	10307	8552	7	
12-31-85	14041	1	10308	8556	4	
2-7-86	14067	26	10334	8557	1	
2-28-86	14067	0	10334	8578	21	
4-4-86	14077	10	10344	8578	0	8578
4-30-86	14077	0	10344	↑ AUTO PUMP REMOVED MANUALLY	IF MEASURED	TO PUMP
5-22-86	14257 *					
7-16-86	14306			8639 *		
7-31-86	14306			8773 *		
9-4-86	14320 *			8826 *		
10-2-86	14369 *					
10-3-86	14369					

* OIL PUMP WAS RAISED + OIL SKIMMED OFF TOP OF WATER IN WELL CASING
MOSTLY WATER MEASURED. VERY LITTLE OIL

GROUNDWATER
TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS
6879 S. Emporia, Suite 4, Englewood, CO 80112, (303) 799-8338, Telefax (303) 799-8337

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