1R - 138

REPORTS

DATE:

1998

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

October 29, 1998

Mr. William C. Olson
STATE OF NEW MEXICO
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Remediation Work Plan
TNM-97-16
Unit C, Section 12, Township 24 South, Range 37 East
Lea County, New Mexico
Job No. 710034-1

Dear Mr. Olson:

Enclosed with this letter is the remediation work plan required by your letter dated August 31, 1998. Please call me at (210) 680-3767 if you have any questions or need additional information.

Respectfully,

for Theresa Nix
Project Manager

cc: Mr. Tony Savoie, TNMPL
Mr. Marc Oler, Equilon
OCD Hobbs Office

tln\p\tnmpl\710034\workplan\rworkpln.doc

SITE BACKGROUND

PERVIOUS SOIL INVESTIGATIONS

KEI conducted a subsurface investigation at TNM-97-16 during October of 1997 and the results are presented in a report dated May 14, 1998. The investigation was conducted to:

- identify the distribution of subsurface hydrocarbon across the site
- collect soil samples for analysis of hydrocarbon concentrations
- install monitoring wells for sampling of ground water, if encountered during drilling

The subsurface investigation included advancement of 2 soil borings (designated SB-1 and SB-2), installation of 3 monitoring wells (designated MW-1 through MW-3) and 1 water supply well (designated WW-1), collecting native soil samples and submitting selected samples for determination of total petroleum hydrocarbons - diesel range organics (TPH - DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations. Ground water was encountered during drilling at approximately 18.5 to 22 feet below ground surface. Well and boring locations are presented on FIG. 1.

Laboratory concentrations for soil samples obtained during the subsurface investigation were as follows:

CONSTITUENT	CONCENTRATION RANGE (mg/kg)
BENZENE	ND
BTEX	ND
TPH	ND to 12.3

The source area was excavated by a TNMPL contractor, stockpiled, and landfarmed on-site. Approximately 32,000 cubic yards of in-place soil were excavated. On September 15, 1998, 23 samples were collected from the excavation walls and bottom and 2 composite samples were collected from the landfarm. The excavation samples were submitted for determination of BTEX and TPH - DRO concentrations and the landfarm samples were submitted for determination of TPH - DRO concentrations.

Laboratory concentrations for the excavation and landfarm samples were as follows:

CONSTITUENT	CONCENTRATION RANGE (mg/kg)
BENZENE	ND to 0.352
BTEX	ND to 2.788
TPH	ND to 1,270

Soil results are summarized in TABLE I. Excavation and landfarm soil locations and results are presented on FIG. 1. Copies of the soil laboratory report and chain-of-custody documentation are attached.

Based on assumptions presented in the May 14, 1998, report, the calculated State of New Mexico Oil Conservation Division (OCD) closure levels for soil impact are as follows:

CONSTITUENT	CLOSURE CONCENTRATIONS (mg/kg)
BENZENE	10
BTEX	50
TPH	100 + Background Concentration

Ground water was observed by construction personnel to be seeping into the bottom of the excavation. On August 6, 1997, apparent phase-separate hydrocarbons (PSH) were encountered at the bottom of the excavation at approximately the same depth as the ground water seepage. The presence of PSH was reported to OCD that same day of the apparent PSH discovery. TNMPL personnel indicated clean soils were delivered to the site, blended with approximately 1 foot of the excavation bottom soils, and used to partially backfill approximately 3 to 4 feet of the excavation to prevent the ground water seepage.

GROUND WATER INVESTIGATION

The 3 monitoring wells and the water supply well were sampled on a quarterly basis beginning with the fourth quarter of 1997. The initial samples were submitted for determination of BTEX concentrations. Samples obtained during the second quarter of 1998 were submitted for BTEX, metals, cations/anions, total dissolved solids (TDS), and semi-volatile organic compounds (SVOC) concentrations. Samples collected since then have been submitted for determination of BTEX concentrations only. Two windmill wells located approximately 0.3 miles north and 0.5 miles south of the site were also sampled during the fourth quarter of 1997 for BTEX and TPH concentrations.

Laboratory BTEX and TPH concentrations for the 5 quarters sampled were as follows:

CONSTITUENT	CONCENTRATION RANGE (mg/L)
BENZENE	ND to 0.006
BTEX	ND to 0.019
TPH	ND

A sample was collected from the water in the excavation on June 2, 1998, and submitted for determination of BTEX and polycyclic aromatic hydrocarbon (PAH) concentrations. Laboratory concentrations for the excavation sample were as follows:

CONSTITUENT	CONCENTRATION RANGE (mg/L)
BENZENE	ND to 0.242
BTEX	0.008 to 0.945
NAPHTHALENE	0.006

All PAH constituents not listed above were ND. All ground water BTEX and TPH results are summarized in TABLE II. Copies of all laboratory reports and chain-of-custody documentation have been submitted on a quarterly basis.

PROPOSED REMEDIATION ACTIVITIES

IMPACTED SOILS

Analytical results indicate several areas along the sidewalls and bottom of the previous excavation that exceed the soil closure concentration of 100 mg/kg TPH. The areas along the sidewalls will be further evaluated by excavating trenches approximately 2 feet into the sidewalls and collecting additional soil samples at selected intervals for TPH analysis. If the TPH results indicate concentrations below the closure concentration, approximately 1 foot of additional sidewall soils will be further excavated (from the areas exceeding 100 mg/kg TPH) and transported to the landfarm area for treatment. If the TPH results are above the closure concentration, the test trenches will be extended further into the sidewall until suitable results are obtained.

Two soil samples will be collected from the areas in the bottom of the excavation that exceed the closure concentration. One sample will be collected at a depth approximately 2 feet into the blended backfill. A second sample will be collected at a depth approximately 1 to 2 feet below the previous bottom elevation. If the TPH results indicate concentrations below the closure concentration, the area will be backfilled with acceptable soils from the landfarm. If the TPH results are above the closure concentration, the sample areas will be extended downward until suitable results are obtained. At that time. the impacted soils will be excavated to the correct depth and landfarmed with the clean soils in the bottom of the excavation.

A grid system will be established for the landfarm area to allow for more controlled sampling and evaluation. The landfarmed soils will be tested at a rate of approximately 1 for each 2000 cubic yards to determine the effectiveness of the landfarming efforts. The sample exhibiting the highest TPH concentration will also be analyzed for SPLP TPH, SPLP volatile organic compounds (SPLP - VOC), and SPLP semi-volatile organic compounds (SPLP - SVOC). Landfarmed soils exhibiting TPH concentrations below 100 mg/kg will be used to backfill the excavation. The remaining soils will continue to be landfarmed on-site utilizing water supply well WW-1.

GROUND WATER

Upon completion of the soil remediation activities, 1 additional monitoring well will be installed in or as near the source area as possible. During drilling, a minimum of 2 soil samples will be obtained based on the following criteria:

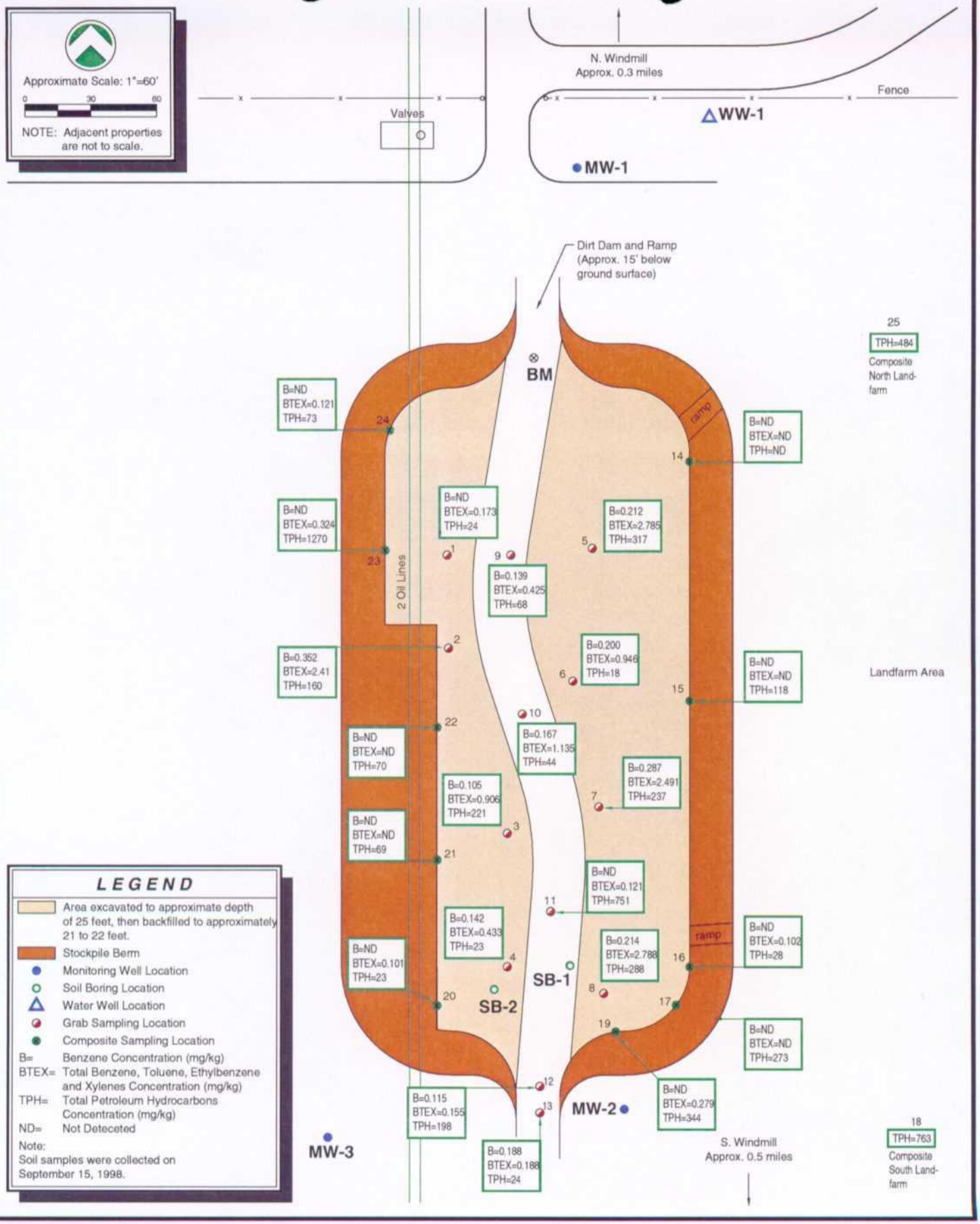
- The sample with the highest head-space reading,
- The sample directly above the ground water level measured at the time of drilling, and/or
- The sample at the bottom of each boring.

The samples will be submitted for determination of the following potential parameters:

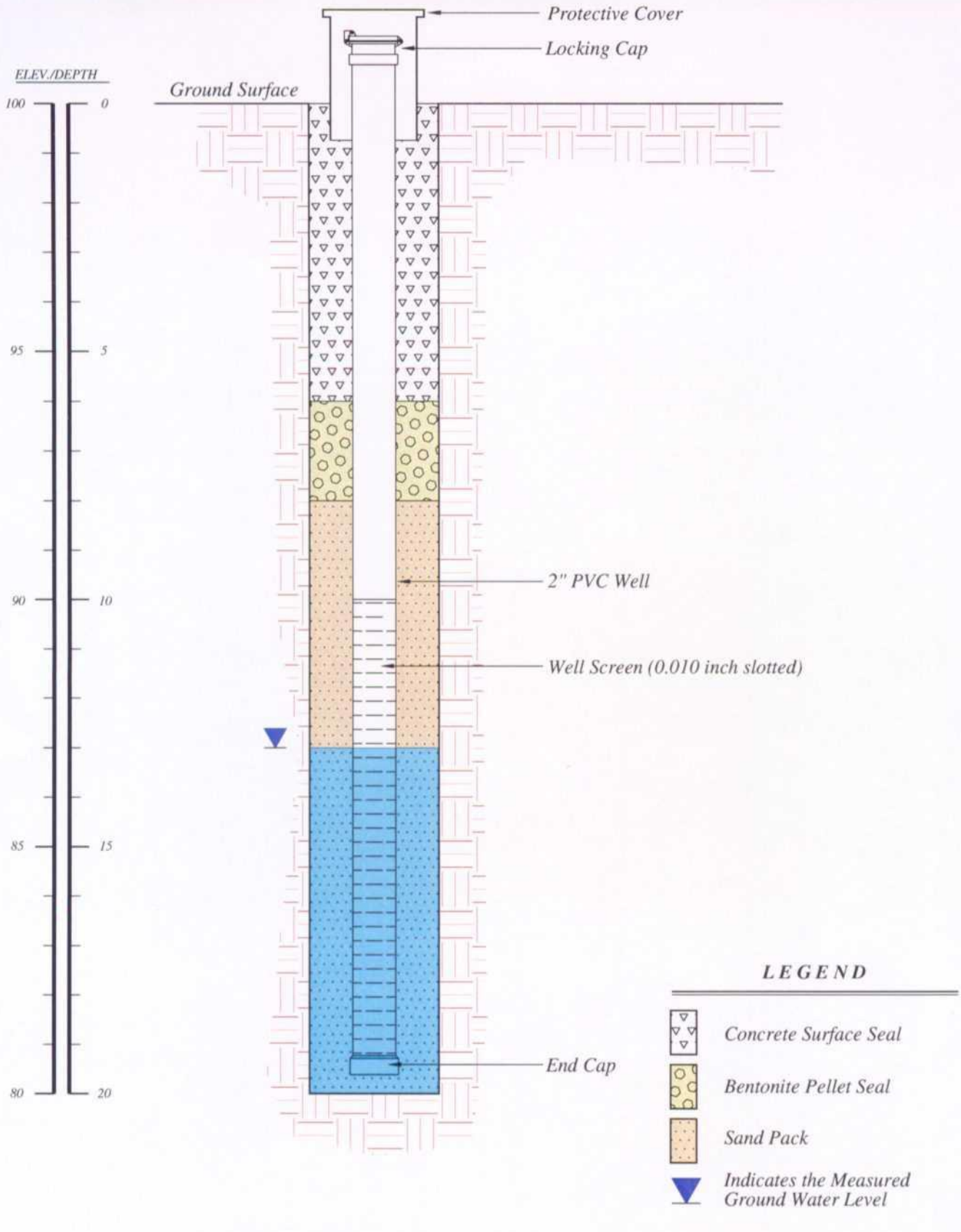
- Total Petroleum Hydrocarbons (TPH) by EPA Method modified 8015 - DRO.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method SW846-8020.
- (Optional) - the sample exhibiting the highest TPH concentration (if any) may also be analyzed for SPLP TPH by EPA Method 1312/418.1 or 1312/8015, SPLP Volatiles (VOC) by EPA Method SW846-1312/8260, and SPLP Semi-volatiles (SVOC) by EPA Method SW846-1312/8270.

The monitoring well will be installed to approximately 10 feet into ground water as observed during drilling. The well materials will consist of 2 inch internal diameter, threaded connection, Schedule 40 PVC solid pipe, and 10 feet of either 0.010 or 0.020 inch slotted PVC well screen. A graded, clean silica sand will be placed in the annulus of the screened interval. A minimum 2 foot bentonite seal will be placed above the sand packing and either a stick-up or flush mount, steel protective cover will then be concreted in place. The well will be protected with a locked cap. A typical well installation is presented as FIG. 2.

This new well along with the existing wells will be gauged and sampled for 4 quarterly events to insure ground water concentrations are below New Mexico Environment Department (NMED) Drinking Water Standards. Updated ground water laboratory tables, contour/concentration maps, laboratory reports, and chain-of-custody documentation will be submitted on a quarterly basis.



k·e·i	*SOIL CONCENTRATION MAP - SEPTEMBER 15, 1998*	710034 - 1
	TNMPL TNM-97-16 LEA COUNTY, NEW MEXICO	FIG 1



k·e·i

TYPICAL MONITORING WELL SCHEMATIC

710034 - 1

FIG 2

GENERAL NOTES

ND - Indicates constituent was not detected above the method detection or reporting limit.
--- - Indicates the constituent was not analyzed or a depth was not applicable (TABLE I).

Method detection or reporting limits:

Soil:	BTEX	-	0.020 to 0.120 mg/kg
	TPH	-	10 mg/kg
Water:	BTEX	-	0.001 to 0.006 mg/l
	TPH	-	1.0 mg/l

Laboratory test methods:

Soil:	BTEX	-	EPA Method SW846-8020
	TPH	-	Modified EPA Method 8015 Diesel Range Organics
Water:	BTEX	-	EPA Method SW846-8020
	TPH	-	Modified EPA Method 8015 Diesel Range Organics
	SVOC	-	EPA Method 8270
	PAH	-	EPA Method 8270
	Metals	-	EPA ICP Method 6010
	Cations	-	SM4500CO2D
	Anions	-	EPA Method 300.0
	TDS	-	EPA Method 160.1

TABLE I

SUMMARY OF SOIL RESULTS - BTEX AND TPH
TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-97-16
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DATE	DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	TPH (mg/kg)
Landfarm Background	08/03/97	---	ND	ND	ND	ND	ND	ND
A-1	08/19/97	---	0.117	0.545	0.158	0.746	1.566	15
A-2	08/19/97	---	ND	0.111	ND	0.148	0.259	ND
A-3	08/19/97	---	ND	0.221	ND	ND	0.221	38
A-4	08/19/97	---	ND	0.128	ND	0.166	0.294	ND
A-5	08/19/97	---	ND	0.336	0.184	0.675	1.195	15
A-6	08/19/97	---	ND	ND	ND	0.145	0.145	ND
MW-1	10/16/97	10 - 12	ND	ND	ND	ND	ND	16.0
MW-1	10/16/97	21 - 23	ND	ND	ND	ND	ND	15.9
MW-2	10/15/97	10 - 12	ND	ND	ND	ND	ND	15.4
MW-2	10/15/97	19 - 21	ND	ND	ND	ND	ND	14.5
MW-3	10/15/97	10 - 12	ND	ND	ND	ND	ND	10.6
MW-3	10/15/97	20 - 22	ND	ND	ND	ND	ND	12.6
WW-1	10/16/97	18 - 20	ND	ND	ND	ND	ND	17.8
SB-1	10/15/97	4 - 6	ND	ND	ND	ND	ND	18.8
SB-1	10/15/97	14 - 16	ND	ND	ND	ND	ND	20.1
SB-2	10/15/97	4 - 6	ND	ND	ND	ND	ND	20.3
SB-2	10/15/97	14 - 16	ND	ND	ND	ND	ND	23.3
1-W Bottom Grab West	09/15/98	---	ND	ND	ND	0.173	0.173	24
2-W Bottom Grab West	09/15/98	---	0.352	0.179	0.527	1.352	2.41	160

TABLE I
(continued)

SUMMARY OF SOIL RESULTS - BTEX AND TPH
TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-97-16
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DATE	DEPTH (feet)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	TPH (mg/kg)
18-Comp. LF S.	09/15/98	---	---	---	---	---	---	763
19 Comp. E S W	09/15/98	---	ND	ND	ND	0.279	0.279	344
20 Comp. E S W	09/15/98	---	ND	0.101	ND	ND	0.101	23
21 Comp. E S W	09/15/98	---	ND	ND	ND	ND	ND	69
22 Comp. E S W	09/15/98	---	ND	ND	ND	ND	ND	70
23 Comp. W S W	09/15/98	---	ND	ND	ND	0.324	0.324	1,270
24 Comp. W S W	09/15/98	---	ND	ND	ND	0.121	0.121	73
25-LF-N	09/15/98	---	---	---	---	---	---	484

TABLE II

SUMMARY OF GROUND WATER RESULTS - BTEX AND TPH
TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-97-16
LEA COUNTY, NEW MEXICO

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)	TPH (mg/l)
MW-1	10/20/97	0.003	0.003	0.003	0.010	0.019	---
MW-1	01/14/98	ND	ND	ND	ND	ND	---
MW-1	04/08/98	ND	ND	ND	ND	ND	---
MW-1	07/14/98	ND	ND	ND	ND	ND	---
MW-1	10/07/98	ND	ND	ND	ND	ND	---
MW-2	10/20/97	ND	0.002	0.001	0.007	0.010	---
MW-2	01/14/98	ND	ND	ND	ND	ND	---
MW-2	04/08/98	ND	ND	ND	ND	ND	---
MW-2	07/14/98	0.006	ND	ND	0.001	0.007	---
MW-2	10/07/98	ND	ND	ND	ND	ND	---
MW-3	10/20/97	ND	ND	ND	ND	ND	---
MW-3	01/14/98	ND	ND	ND	0.002	0.002	---
MW-3	04/08/98	ND	ND	ND	ND	ND	---
MW-3	07/14/98	ND	ND	ND	ND	ND	---
MW-3	10/07/98	ND	ND	ND	ND	ND	---
WW-1	10/20/97	ND	ND	ND	ND	ND	---
WW-1	01/14/98	ND	ND	ND	ND	ND	---
WW-1	04/08/98	ND	ND	ND	ND	ND	---
WW-1	07/14/98	ND	ND	ND	ND	ND	---
WW-1	10/07/98	ND	ND	ND	ND	ND	---
SOUTH WINDMILL	10/20/97	ND	0.002	ND	ND	0.002	ND
NORTH WINDMILL	10/20/97	ND	0.002	0.001	0.005	0.008	ND
EXCAVATION WATER	06/02/98	0.242	0.222	0.179	0.302	0.945	---

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI
ATTN: THERESA NIX & M. HAWTHORNE
5309 WURZBACH SUITE 100
SAN ANTONIO, TEXAS 78238
FAX: 210-680-3763

Receiving Date: 09/15/98
Sample Type: Soil
Project #:710034-1-0
Project Name: Jal TNM 97-16
Project Location: Jal, NM

Analysis Date: 09/15 Thru 09/16/98
Sampling Date: 09/15/98
Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	TPH (DRO) C10-C28 mg/kg
15424	1-W Bottom Grab West	<0.100	<0.100	<0.100	0.173	<0.100	24
15425	2-W Bottom Grab West	0.352	0.179	0.527	0.862	0.490	160
15426	3-W Bottom Grab West	0.105	<0.100	0.142	0.488	0.171	221
15427	4-W Bottom Grab West	0.142	0.113	<0.100	0.178	<0.100	23
15428	5 - E Bottom Grab East	0.212	0.563	0.414	0.962	0.634	317
15429	6 - E Bottom Grab East	0.200	0.259	<0.100	0.311	0.176	18
15430	7 - E Bottom Grab East	0.287	0.695	0.241	0.798	0.470	237
15431	8 - E Bottom Grab East	0.214	0.573	0.441	1.085	0.475	288
15432	9 Core - Dam	0.139	0.106	<0.100	0.180	<0.100	68
15433	10 Core - Dam	0.167	0.331	<0.100	0.407	0.230	44
15434	11 Core - Dam	<0.100	<0.100	<0.100	<0.100	0.121	751
15435	12 Core - Dam	0.115	<0.100	<0.100	<0.100	<0.100	198
15436	13 Core - Dam	0.188	<0.100	<0.100	<0.100	<0.100	24
15437	14 Comp. East Side Wall	<0.100	<0.100	<0.100	<0.100	<0.100	<10
15438	15 Comp. East Side Wall	<0.100	<0.100	<0.100	<0.100	<0.100	118
15439	16 Comp. East Side Wall	<0.100	<0.100	<0.100	0.102	<0.100	28
15440	17 Comp. East Side Wall	<0.100	<0.100	<0.100	<0.100	<0.100	273
15441	18 - Comp. Land Farm S.	-	-	-	-	-	763
15442	19 Comp. East Side Wall	<0.100	<0.100	<0.100	0.126	0.153	344
15443	20 Comp. East Side Wall	<0.100	0.101	<0.100	<0.100	<0.100	23
15444	21 Comp. East Side Wall	<0.100	<0.100	<0.100	<0.100	<0.100	69
15445	22 Comp. East Side Wall	<0.100	<0.100	<0.100	<0.100	<0.100	70
15446	23 Comp. West Side Wall	<0.100	<0.100	<0.100	0.188	0.136	1,270
15447	24 Comp. West Side Wall	<0.100	<0.100	<0.100	0.121	<0.100	73
15448	25 - Land Farm - N.	-	-	-	-	-	484
	% IA	104	100	97	96	99	97
	% EA	111	110	102	102	105	92
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8021B, 5030 , 8015m DRO

Raland K. Tuttle

10-15-98
Date

Environmental Lab of Texas, Inc.

12600 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: D. Stacey / T. NIX / M. HAWTHORNE
Phone #: (210) 680-3767
FAX #: (210) 680-3763

Company Name & Address: KEI CONSULTANTS 5309 Wurzbach Suite 100 San Antonio, TX 78238

Project #: 710034-1-0
Project Name: SAL TNM 9716

Project Location: SAL, NM
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	BTEX EPA 602/8021B	TPH EPA 8015 Mod. Range Organics	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
15424	1-W · Bottom Grab West	1	90z.		X									9/15/98	0920	X	X						
15425	2-W														0935								
15426	3-W														0945								
15427	4-W														0955								
15428	5-E · Bottom Grab East														0980								
15429	6-E														0940								
15430	7-E														0950								
15431	8-E														1000								
15432	9 Core - Dam														1010								
15433	10														1030								
15434	11														1035								

Relinquished by:	Date:	Time:	Received by:
	9/15/98	1620	mcmurrey
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Laboratory:

REMARKS
24 HR TURN AROUND -

COC # 179

Environmental Lab of Texas, Inc.

12600 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: D. Stacey

Phone #: (210) 680-3769
FAX #: (210) 680-3763

Company Name & Address: KEI CONSULTANTS 5309 Wurzbach Suite 100 San Antonio, TX 78238

Project #: 910034-1-0

Project Name: JAL TNM 97-16

Project Location: JAL, NM

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX EPA SW846-8021B	TPH EPA 8015 - DRO	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
15435	12 - Core Dam	1	902.		X						X			9/15/98	1040								
15436	13														1055								
15437	14 - Composite East Side Wall														1100								
15438	15														1105								
15439	16														1115								
15440	17														1120								
15441	18 - Composite Land Farm 5														1120		X						
15442	19 Composite East Side Wall														1125	X							
15443	20														1205								
15444	21														1210								
15445	22														1215								

Relinquished by:	Date:	Times:	Received by:
	9/15/98	1620	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date:	Times:	Received by Laboratory:

REMARKS

24 HR TURN-AROUND

COC# 179

Environmental Lab of Texas, Inc.

12600 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: D. Stacey
Phone #: (210) 680-3767
FAX #: (210) 680-3763

Company Name & Address: KEI CONSULTANTS 5309 Wurzbach Suite 100 San Antonio, TX 78238

Project #: 710034-1-0
Project Name: JAL TNM-9716

Project Location: JAL, NM
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME
15446	23 Composite West Side Wall	1			X						X			8/15/98	1220
15447	24	↓			↓						↓			↓	1230
15448	25 - LAND FARM - N	↓			↓						↓			↓	1200

ANALYSIS REQUEST

BTEX [redacted] EPA SW846-8021B	TPH [redacted] EPA 8015 - DRO	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
X	X						
↓	↓						
↓	↓						

Relinquished by:	Date:	Time:	Received by:
[signature]	8/15/98	1620	[signature]
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by Laboratory:

REMARKS
24 HR TURN-AROUND

COC #179

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

August 31, 1998

CERTIFIED MAIL
RETURN RECEIPT NO: Z-235-437-325

Mr. Tony Savoie
Texas-New Mexico Pipe Line Company
P.O. Box 1030
Jal, New Mexico 88252

RE: GROUND WATER REMEDIATION
TNM-97-16 SITE

Dear Mr. Savoie:

The New Mexico Oil Conservation Division (OCD) has reviewed the following Texas-New Mexico Pipe Line Company (TNMPLC) documents that were submitted on behalf of TNMPLC by their consultant KEI:

- August 14, 1998 "GROUND WATER MONITORING EVENT, TNM-97-16, SECTION 12, TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO, JOB NO. 710034-1-0".

- June 30, 1998 "GROUND WATER MONITORING EVENT, TNM-97-16, LEA COUNTY, NEW MEXICO, JOB NO. 710034-1-0".

- May 14, 1998 "SUBSURFACE INVESTIGATION REPORT, TEXAS - NEW MEXICO PIPELINE COMPANY, TNM-97-16, LEA COUNTY, NEW MEXICO".

These documents contain the results of TNMPLC's investigation of the extent of soil and ground water contamination resulting from a crude oil pipeline spill at the TNM-97-16 site located in Unit C, Section 12, Township 24 South, Range 37 East, Lea County, New Mexico.

The investigation actions taken to date are satisfactory. The OCD requires that TNMPLC submit a ground water remediation work plan for the site. The work plan will be submitted to the OCD Santa Fe Office by October 30, 1998 with a copy provided to the OCD Hobbs District Office. The work plan will include:

1. A site map showing the locations of the windmills, all ground water sampling points (including excavation sampling points and the location of prior observed free product), all excavated areas and other relevant site features.

2. A summary of the soil and ground water remedial actions taken to date.

3. A proposed remedial action plan.

4. A ground water monitoring plan including establishment of a permanent ground water monitoring point in the source area.

In order to provide a better understanding of site actions, the OCD requires that all future investigation reports include a description of all soil and ground water remedial actions taken prior to submission of the reports.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Wayne Price, OCD Hobbs District Office
Theresa Nix, KEI

Z 235 437 325

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

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

August 14, 1998

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

Re: Ground Water Monitoring Event
TNM-97-16
Section 12, Township 24 South, Range 37 East
Lea County, New Mexico
Job No. 710034-1-0

Dear Mr. Savoie:

Transmitted with this letter is the ground water binder update packet for the third quarter of 1998 ground water monitoring event conducted at TNM-97-16 located in Lea County, New Mexico. A copy has been submitted to OCD Hobbs and OCD Santa Fe.

The packet contains the following:

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

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

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

Respectfully,

Theresa Nix

Theresa Nix
Project Manager

Enclosure

filed in bound GW Monitoring Report
Will Olson

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

tln\p:\tnmp\710034\monitor\cgwb3q98.doc

TABLE OF CONTENTS

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

June 30, 1998

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

Re: Ground Water Monitoring Event
TNM-97-16
Lea County, New Mexico
Job No. 710034-1-0

Dear Mr. Savoie:

Transmitted with this letter is the ground water binder for all ground water monitoring events conducted at TNM-97-16 located in Lea County, New Mexico.

After each ground water monitoring and sampling event, you will receive a packet containing the following:

- Updated gauging tables
- Updated ground water laboratory results tables
- Updated figures
- A copy of the laboratory ground water results and chain-of-custody documentation
- A dated "tab" for each new event

When you receive each packet, please remove and replace the former tables. Add the new dated tab and place the updated figures, laboratory reports, and chain-of-custody documentation behind this tab.

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

Respectfully,

Theresa Nix

Theresa Nix
Project Manager

Enclosure

cc: Marc Oler, TTTI
J. Michael Hawthorne, KEI

tln\p:\tnmpl\710034\monitor\rgwbindr.doc

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

May 14, 1998

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

Re: Subsurface Investigation Report
TNM-97-16
Lea County, New Mexico
Job No. 710034-1

Dear Mr. Savoie:

Transmitted with this letter is the subsurface investigation report for TNM-97-16, located in Lea County, New Mexico. One copy has been forwarded to the OCD Hobbs and OCD Santa Fe offices.

Please contact me at (210) 680-3767 if you have any questions.

Respectfully,

Theresa Nix

Theresa Nix
Project Manager

Enclosure

cc: Marc Oler; TTTI
OCD Hobbs Office
OCD Santa Fe Office ✓

tln\p:\tnmpl\710034\assment1\rsubsinv.doc

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

August 8, 1997

Mr. Roger Anderson
STATE OF NEW MEXICO
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Texas-New Mexico Pipe Line Company
TNM-97-16
Lea County, New Mexico
Job No. 710034

Dear Mr. Anderson:

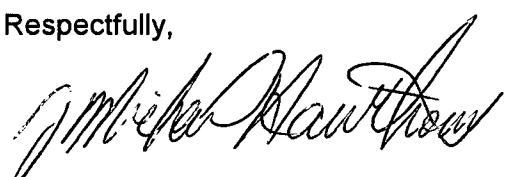
This letter provides written notification of the discovery of apparent phase-separate hydrocarbons (PSH) on ground water at the above referenced site during excavation activities.

On August 6, 1997, Texas-New Mexico Pipe Line Company excavated impacted soil at the referenced site, which is located in the NE/4, NW/4 of Section 12, Township 24 South, Range 37 East in Lea County, New Mexico. Apparent PSH was encountered at the ground water interface at an approximate depth of 20 feet below ground surface. Mr. Wayne Price of the OCD was notified on August 6, 1997 at approximately 12:00 p.m. by telephone.

KEI will install three monitoring wells at the site to further characterize the nature and extent of hydrocarbon impact to ground water. A work plan for the well installation is in preparation.

If you have any questions or need additional information, please contact me at (210) 680-3767.

Respectfully,



J. Michael Hawthorne, P.G., REM
Senior Geologist

cc: TNMPL, Tony Savoie
OCD Hobbs District Office, Wayne Price

Bill Olson

From: Wayne Price
Sent: Wednesday, August 06, 1997 3:44 PM
To: Bill Olson; Roger Anderson
Cc: Chris Williams
Subject: TNM Pipeline spill & Remediation for TNMPL 97-16
Importance: *High*

Tonie Savoie called today and gave this office verbal notification that they had impacted groundwater.