CLOSURE REPORT



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ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

CLOSURE REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY MONUMENT SITE 4 LEA COUNTY, NEW MEXICO





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

CLOSURE REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY MONUMENT SITE 4 LEA COUNTY, NEW MEXICO

PREPARED FOR:

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

Mr. Tony Savoie

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Theresa Nix Project Manager

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

KEI Job No. 610057

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EXECUTIVE SUMMARY

The Texas - New Mexico Pipe Line Company (TNMPL) alleged release site 4 is located approximately 2.8 miles west of Monument in Lea County, New Mexico. The site is specifically located in Section 36, Township 19 South, Range 36 East. A site location map is presented as FIG. 1. The site is owned by Mr. Jimmy Cooper. Specific site details are presented on FIG. 2. This report summarizes closure activities performed at the project site from March through April of 1997.

Closure activities performed included the following:

- collection of soil samples from the initial excavation to determine hydrocarbon concentration levels;
- excavation and stockpiling of additional soils which exceeded acceptable hydrocarbon concentration levels;
- collection of confirmation samples in the excavated source area to confirm removal of all impacted soils;
- characterization of stockpiled soils;
- transportation and off-site landfarming of stockpiled soils;
- backfilling the excavation with clean soils; and
- grading and seeding of disturbed areas.

The following conclusions have been made based on the field and laboratory data presented in this report:

• The closure standards at the site were determined to be as follows:

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

- Approximately 407 cubic yards of impacted soil was excavated, stockpiled, and landfarmed off-site.
- Confirmation soil samples at the site indicated TPH, benzene, and BTEX concentrations below closure standards.

From the conclusions presented above, we request the site be closed under New Mexico Oil Conservation Division (OCD) regulations.

PURPOSE AND SCOPE

The objective of the site closure activities was to obtain closure for the site based on OCD regulations. The following activities were performed to achieve this objective:

- determination of closure standards;
- removal of impacted soil;
- characterization of removed impacted soil;
- confirmation sampling in the excavated source area to confirm all impacted soils were removed;
- transportation and off-site landfarming of impacted soil; and
- backfill clean soil in the excavated source area.

BACKGROUND INFORMATION

A hydrocarbon release was identified at the subject site during 1995. The following activities were performed as part of the current release response activities:

- Clean overburden soils including topsoil were removed and stockpiled on-site
- Soils were excavated, stockpiled, and some soils were landfarmed off-site.
- One exploratory soil boring was advanced.
- Soil samples were collected from native soils during soil boring advancement.

CLOSURE ACTIVITIES

CLOSURE STANDARDS

The New Mexico OCD Guidelines for Remediation of Leaks, Spills, and Releases contains the standard criteria for remediation activities. A ranking analysis for the site was performed to determine appropriate soil remediation levels. The ranking analysis is as follows:

CRITERIA	APPLICABLE STANDARD	POINTS
Depth to Ground Water	Less Than 50 Feet	20 Points
Well Head Protection	Greater Than 1000 Feet to Water Source Greater Than 200 Feet to Private Water Source	0 Points
Surface Water Body	Greater Than 1000 Feet	0 Points
	Total Ranking Score	20 Points

Based on the total ranking score, the closure objectives for this site for concentrations of benzene, BTEX, and TPH are summarized below.

	CLOSURE CONCENTRATIONS (mg/kg) 10
BTEX	50
ТРН	100 + Background Concentration

SOIL REMOVAL

Additional soils were removed from the bottom and sidewalls of the existing excavation from March 3, 1997 through March 5, 1997. These soils included sediments which had washed into the excavation. An estimated 407 cubic yards were removed from the existing excavation and stockpiled on-site for characterization prior to off-site landfarming.

SOIL CHARACTERIZATION

The soil stockpiles were characterized by collecting two composite soil samples for determination of TPH. Laboratory results indicated TPH concentrations of 672 mg/kg and 1,600 mg/kg. Laboratory results are presented in APPENDIX A.

CONFIRMATION SAMPLING

Composite soil samples were collected from the excavation bottom and excavation sidewall and submitted for determination of TPH concentrations. Based on the laboratory results of the sidewall and excavation bottom soil samples, additional soils were excavated and the sidewall and excavation bottom resampled. The sample locations are presented on FIG. 3.

Laboratory results of the final composite soil samples indicated the following:

SAMPLE LOCATION	MAX. TPH	MAX. BTEX	MAX. BENZENE
Final Soil Sidewall (mg/kg)	160	0.205	0.205
Soil Bottom (mg/kg)	120	0.412	1.266

Previous soil samples collected during the advancement of exploratory soil boring B4-1 were submitted for determination of BTEX and TPH concentrations. All soil samples indicated BTEX concentrations below laboratory detection limits. However, excavation bottom and sidewall samples were also submitted for determination of BTEX concentrations.

A background sample was collected from the site on April 18, 1997. The background sample exhibited a TPH concentration of 104 mg/kg. Therefore, the TPH closure level at this site is 204 mg/kg.

Soil laboratory results are summarized on TABLE I and graphically presented on FIG. 3.

SOIL DISPOSAL

Authorization to transport and off-site landfarm the impacted soils was obtained from OCD. The impacted soils were transported to C&C Landfarm Incorporated located approximately two miles south of Monument, New Mexico. Disposal documentation is presented in APPENDIX B.

BACKFILL AND RESTORATION

Approximately 450 cubic yards of clean fill material was purchased from Mr. Cooper and placed in the excavation. The remaining non-impacted stockpiled soils from the initial release excavation activities were used to complete the backfilling operations. The area was graded and reseeded following backfilling.

QA/QC PROCEDURES

The soil samples collected were placed in a sterile glass container equipped with a Teflonlined lid furnished by the analytical laboratory. The container was filled to capacity with soil to limit the amount of head-space present. Each container was labeled and placed on ice in an insulated cooler. The cooler was sealed for shipment to Environmental Lab of Texas, Inc. in Odessa, Texas for determination of TPH concentrations using EPA Method 418.1. Selected soil samples were also submitted for determination of BTEX concentrations using EPA Method SW846-8020, 5030. Proper chain-of-custody documentation was maintained throughout the sampling process.







GENERAL NOTES

ND - Indicates constituent was not detected above the method detection limit.

--- - Indicates sample was not submitted for determination of specified constituent.

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Method detection limits:

Soil:	TPH - BTEX -	10 mg/kg 0.100 mg/kg
Laboratory test methods:	BTEX - TPH -	EPA Method SW846-8020, 8030 EPA Method 418.1

TABLE I

SUMMARY OF LABORATORY RESULTS - SOIL EXCAVATION ACTIVITIES MONUMENT SITE 4 LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	XYLENES (mg/kg)	BTEX (mg/kg)	TPH (mg/kg)
Excavation Sampling							
Northwest Sidewall	04/07/97						4,440
Southwest Sidewall	04/07/97						3,260
Bottom Hole	04/07/97						1,980
Northeast Sidewall	04/07/97						860
Southeast Sidewall	04/07/97						1,330
Soil Characterization Sampling							
North Stockpile	04/18/97						1,600
South Stockpile	04/18/97						672
Background Sampling							
Background	04/18/97						104
Confirmation Sampling							
East Sidewall	04/18/97	0.183	ND	ND	ND	0.183	24 ⁽¹⁾
North Sidewall	04/18/97	ND	ND	ND	ND	ND	152 ⁽¹⁾
West Sidewall	04/18/97	0.205	ND	ND	ND	0.205	88 ⁽¹⁾
South Sidewall	04/18/97	0.130	ND	ND	ND ND		160 ⁽¹⁾
Bottom Hole	04/18/97	0.412	0.236	0.190	0.428	1.266	120 ⁽¹⁾

(1) Indicates the retest of excavation sidewall samples collected April 7, 1997, following overexcavation of additional soils.

"Don't Treat Your Soil Like Dirt!"

TEXAS NEW MEXICO PIPE LINE COMPANY ATTN : MR. TONY SAVOIE P.O. BOX 1030 JAL, NM 88252 FAX: 915-395-2636

RECEIVING DATE: 04/08/97 SAMPLE TYPE: SOIL PROJECT: TNMPL SITE #3A-3C-3B-4 PROJECT NAME: NONE GIVEN PROJECT LOCATION: MONUMENT, NM.

ENVIRONMENTAL

LAB OF

ANALYSIS DATE: 04/08/97 SAMPLING DATE: 04/07/97 SAMPLE CONDITION: Intact/Iced

FRUE	JI LOCATION: MUNUMENT, NM.	,	
		НЧТ	
ELT#	FIELD CODE	(mg/kg)	
10679	3B - AREA 3 - NORTH SIDE WALL	130	
10680	3B - AREA 3 - SOUTH SIDE WALL	550	
10681	3B - AREA 3 - EAST SIDE WALL	140	
10682	3B - AREA 2 - BOTTOM HOLE	<10	
10683	3B - AREA 2 - NORTH SIDE WALL	40	
10684	3B - AREA 2 - WEST SIDE WALL	160	
10685	SITE 4 - NORTH WEST SIDE WALL	4,440	
10686	SITE 4 - SOUTH WEST SIDE WALL	3.260	
10687	SITE 4 - BOTTOM HOLE	1,980	
10688	SITE 4 - NORTH EAST SIDE WALL	860	
10689	SITE 4 - SOUTH EAST SIDE WALL	1,330	

, INC.

QUALITY CONTROL TRUE VALUE % PRECISION 216 202 107

Methods: EPA 418.1

Michael R. Fowler

Date

Environmental Lab of Tex:	as, Inc. 12600 West 1-3	00 East Odessa, Texas 7/	763			•				
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10681 3-BARGA3 East S.W		424	16:3/							
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10483 3-BAXERS NORTH S.W.		66-7 1	16:37							
10084 3-BAXCAZWEST S.W		6-2-0	16:40							
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"Don't Treat Your Soil Like Dirt!"

TEXAS NEW MEXICO PIPE LINE ATTN: MR. TONY SAVOIE P.O. BOX 1030 JAL, NEW MEXICO 88252 FAX: 505-395-2636 FAX: 915-682-4182

> Analysis Date: 04/21/97 Sampling Date: 04/18/97 Sample Condition: Intact/Iced

Receiving Date: 04/18/97 Sample Type: SOIL Project #: SITE #4, 3B, 3A Project Name: TEXAS NEW MEXICO Project Location: LEA CO. NEW MEXICO

		TPH	
ELT#	FIELD CODE	mg/kg	
10871	970418, SITE 4 E. SIDE WALL	24	
10872	970418, SITE 4 N. SIDE WALL	152	
10873	970418, SITE 4 W. SIDE WALL	88	
10874	970418, SITE 4 S. SIDE WALL	160	
10875	970418, SITE 4 BOTTOM HOLE	120	
10876	970418, N. DIRT PILE	1,600	
10877	970418, S. DIRT PILE	672	
10878	970418, BACKGROUND #4	104	
10879	970418, BACKGROUND 3-B	24	
10880	970418, 3-B N. DIRT PILE	2.872	
10881	970418, 3-B S. DIRT PILE	25,120	
10882	970418, 3-A BOTTOM HOLE	48	
10883	970418, 3A-W. SIDE WALL	208	
10884	970418, 3A-N. SIDE WALL	104	
10885	970418, 3A-S. SIDE WALL	<10	
10886	970418, 3A-E. DIRT PILE	3.640	
10887	970418, 3A-W. DIRT PILE	200	
10888	970418, 3A- BACKGROUND	56	
	BLANK	<10	
	% INSTRUMENT ACCURACY	109	
	% EXTRACTION ACCURACY	90	

METHOD: EPA 418.1

Michael R. Fowler

Date

0nmental Lab of Texas, Inc. 12600 Werl-20 Earl Odeste, Texas 79763 (915) 563-1800 FAX (915) 563-1713 CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST	Phone #: 915/682-3546 Analysis request FAX #: 915/682-4182 / Analysis request	Address ERVICES ENVIRONMENTAL, MIDLAND, TEXAS	NTE#4+3-B Project Name: TEX DEU MEX RD F	A CO. N M & X CO. N M & CO	S MATRIX PHESEDUATIVE SAMPLING 00 A: 10	1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 </th <th>70418 SITE # E. SIDEWARD 1 1 1 1 1 4/14 0941 / 1</th> <th>20419SITE & D. SIDEWALL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</th> <th>720419 SITE 4 W. SIDEWALL 1 / / //1/ // //1/ // //////////////</th> <th>2041T SITE 4 S. SIDEWALL 1 1 / W/8/G/0954/1/</th> <th>20419 SITEU BottomHale 1 1 4/16/570957/ 1 1 1</th> <th>20418 D. DIKT PILE 1 1 1 1 WITH 1003 1 WITH 1003</th> <th>20417 S.DIRT PILE I VIATIOID VIATIOID</th> <th>720418 BACKGROUND # 4 1 1 1 1 1 4 1 1 4 1 1 1 4 1 1 1 2 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1</th> <th>72419 BACKGROWAD 3-B 1 - 4 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -</th> <th>20419 3-B N DIRT PILE</th> <th>20419 3-BS-DIRTPICE 17 1 1/ 1/ 1/1/1/ 1/1/ 1/1/</th> <th>Received by REMARKS Parts Received by REMARKS</th> <th>Date: Tisses: Received by:</th> <th>Date: Thee: Received by Laboratory:</th>	70418 SITE # E. SIDEWARD 1 1 1 1 1 4/14 0941 / 1	20419SITE & D. SIDEWALL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	720419 SITE 4 W. SIDEWALL 1 / / //1/ // //1/ // //////////////	2041T SITE 4 S. SIDEWALL 1 1 / W/8/G/0954/1/	20419 SITEU BottomHale 1 1 4/16/570957/ 1 1 1	20418 D. DIKT PILE 1 1 1 1 WITH 1003 1 WITH 1003	20417 S.DIRT PILE I VIATIOID VIATIOID	720418 BACKGROUND # 4 1 1 1 1 1 4 1 1 4 1 1 1 4 1 1 1 2 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72419 BACKGROWAD 3-B 1 - 4 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	20419 3-B N DIRT PILE	20419 3-BS-DIRTPICE 17 1 1/ 1/ 1/1/1/ 1/1/ 1/1/	Received by REMARKS Parts Received by REMARKS	Date: Tisses: Received by:	Date: Thee: Received by Laboratory:
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TEXAS NEW MEXICO PIPE LINE COMPANY ATTN: MR. TONY SAVOIE P.O. BOX 1030 JAL, NM 88252 FAX: 915-682-4182 FAX: 505-395-2636

Receiving Date: 04/18/97 Sample Type: SOIL Project : SITE #4, 3B, 3A Project Location: LEA CO, NEW MEXICO Analysis Date: 04/21/97 Sampling Date: 04/18/97 Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE ma/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m.p-XYLENE mg/kg	o-XYLENE mg/kg	
10871	970418, SITE 4 E. SIDE WALL	0.183	<0.100	<0.100	<0.100	<0.100	
10872	970418, SITE 4 N. SIDE WALL	<0.100	<0.100	<0.100	<0.100	<0.100	
10873	970418, SITE 4 W. SIDE WALL	0.205	<0.100	<0.100	<0.100	<0.100	
10874	970418, SITE 4 S. SIDE WALL	0.130	<0.100	<0.100	<0.100	<0.100	
10875	970418, SITE 4 BOTTOM HOLE	0.412	0.236	0,190	0.271	0.157	
10882	970418, 3-A BOTTOM HOLE	0.144	<0.100	<0.100	<0.100	<0.100	
10883	970418, 3A-W, SIDE WALL	0.135	<0.100	<0.100	<0.100	<0.100	
10884	970418, 3A-N. SIDE WALL	0.114	<0.100	<0.100	< 0.100	<0.100	
10885	970418, 3A-S. SIDE WALL	<0.100	<0.100	<0.100	<0.100	<0.100	

% IA	104	105	110	109	110
% EA	93	97	100	98	98
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METHODS: SW 846-8020,5030

Michael R. Fowler

Date

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