PLAINS
PIPELINE, L.P.

WTR IMPACTED NEED # SHEET BANNER 1RP-37

July 22, 2005

Mr. Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline Soil Remediation Work Plan
8" Moore to Jal #1 Release Site
Section 16, T17S, R37E
Lea County, New Mexico

Dear Mr. Martin:

Please find attached for your approval a Soil Remediation Work Plan, dated June 24, 2005 for the 8" Moore to Jal #1 release site located in the Section 16, T17S, and R37E in Lea County, New Mexico. The Soil Remediation Work Plan details site activities conducted to date and future activities for soil remediation at the site.

Should you have any questions or comments, please contact me at (505) 441-0965.

Sincerely,

Camille Reynolds

Camille Reynolds
Remediation Coordinator
Plains Pipeline

LLANO-PERMIAN ENVIRONMENTAL

AMARILLO, TX
921 North Bivins
Amarillo, TX 79107
806-467-0607
FAX: 806-467-0622

AUSTIN, TX
13009 Dessau Road
Suite A
Austin, TX 78754
512-989-3428
FAX: 512-989-3487

MIDLAND, TX
#9 East Industrial Loop
Midland, TX 79701
432-522-2133
FAX: 432-522-2180

NEW BRAUNFELS, TX
707 N. Walnut Ave., Suite 208
New Braunfels, TX 78130
210-579-0235
FAX: 210-568-2191

TULSA, OK
1439 East 41st Street
Tulsa, OK 74105
918-742-0871
FAX: 918-742-0876

HOBBS, NM
318 East Taylor Street
Hobbs, NM 88240
505-393-4261
FAX: 505-393-4658

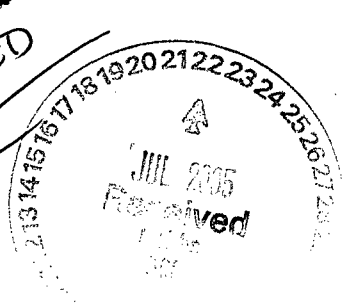
Environmental:
Biologists
Chemists
Corrective Action
Project Managers
Engineers
Geologists
Scientists

Toll Free: 866-742-0742

www.llano-permian.com

June 24, 2005

GROUNDWATER IMPACTED



Mr. Edwin E. Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Soil Remediation Work Plan
Plains Pipeline, L.P.
8" Moore to Jal #1 (Rcf #2002-10270)
SE/4 NW/4 of Section 16, Township 17 South, Range 37 East
Lea County, New Mexico
NMOCD Ref. 1R-0380

Mr. Martin:

The 8" Moore to Jal #1 release site is located approximately 9.1 miles southeast of Lovington in Lea County, New Mexico, at an elevation of approximately 3,770 feet above mean sea level. The release occurred on property owned by the State of New Mexico and is utilized as pasture land. The site is located in a rural area within the West Lovington Oil Field, with no residences or surface water within a 1,000-foot radius of the facility.

In October 2002, a release of approximately 200 barrels of crude oil, of which there was no recovery, occurred at the site due to corrosion (internal and/or external) of the pipeline. Approximately 8,000 square feet (ft^2) of surface area was impacted by the release. Surficial soil saturated by the release was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm for treatment.

The details of the soil remediation and sampling activities are described in the attached Soil Remediation Work Plan. If you have any questions feel free to contact me at (505) 441-4835 or by E-mail at lsanchez@llano-permian.com. Thank you very much.

LLANO-PERMIAN ENVIRONMENTAL

Louis B. Sanchez
Project Manager

Cc: Camille Reynolds, Plains All American Pipeline, L.P.
Jeff Dann, Plains All American Pipeline, L.P.

LLANO-PERMIAN ENVIRONMENTAL

AMARILLO, TX
921 North Bivins
Amarillo, TX 79107
806-467-0607
FAX: 806-467-0622

AUSTIN, TX
13009 Dessau Road
Suite A
Austin, TX 78754
512-989-3428
FAX: 512-989-3487

MIDLAND, TX
#9 East Industrial Loop
Midland, TX 79701
432-522-2133
FAX: 432-522-2180

NEW BRAUNFELS, TX
707 N. Walnut Ave., Suite 208
New Braunfels, TX 78130
210-579-0235
FAX: 210-568-2191

TULSA, OK
1439 East 41st Street
Tulsa, OK 74105
918-742-0871
FAX: 918-742-0876

HOBBS, NM
318 East Taylor Street
Hobbs, NM 88240
505-393-4261
FAX: 505-393-4658

Environmental:
Biologists
Chemists
Corrective Action
Project Managers
Engineers
Geologists
Scientists

Toll Free: 866-742-0742

www.llano-permian.com

8" Moore to Jal #1
Soil Remediation Work Plan

Plains Ref: 2002-10270
SE¼ of the NW¼ of Section 16, Township 17 South, Range 37 East
Lea County, New Mexico

~9.1 Miles Southeast (136°) of
Lovington, Lea County, New Mexico
Latitude: N32° 50' 13.8" **Longitude: W103° 15' 25.3"**

June 2005

Prepared For:

PLAINS ALL AMERICAN PIPELINE, L.P.
333 Clay Street, Suite 600
Houston, TX 77002

Prepared By:
Llano-Permian Environmental
318 East Taylor Street
Hobbs, New Mexico 88240

Distribution List

Name	Title	Company or Agency	Mailing Address	e-mail
Ed Martin	Environmental Engineer	NMOCD	1220 South St. Francis Drive Santa Fe, NM 87505	emartin@state.nm.us
Larry Johnson	Environmental Engineer	NMOCD	1625 French Dr. Hobbs, NM 88231	lwjohnson@state.nm.us
Camille Reynolds	Remediation Coordinator	Plains All American Pipeline	3112 West U.S. Hwy 82 Lovington, NM 88260	cjreynolds@paalp.com
Jeff Dann	Senior Environmental Specialist	Plains All American Pipeline	P. O. Box 4648 Houston, TX 77210-4648	jpdann@paalp.com
Daniel Bryant	Environmental Specialist	Plains All American Pipeline	P. O. Box 3119 Midland, TX 79702-3119	dmbryant@paalp.com
File		LPE	318 East Taylor Street Hobbs, New Mexico 88240	lsanchez@llano-permian.com

NMOCD - New Mexico Oil Conservation Division
LPE – Llano-Permian Environmental

SOILS REMEDIATION WORK PLAN

Introduction

The 8" Moore to Jal #1 release site is located approximately 9.1 miles southeast of Lovington in Lea County, New Mexico, at an elevation of approximately 3,770 feet above mean sea level. The release occurred on property owned by the State of New Mexico and is utilized as pasture land. The site is located in a rural area within the West Lovington Oil Field, with no residences or surface water within a 1,000-foot radius of the facility (Figure 1).

In October 2002, a release of approximately 200 barrels of crude oil, of which there was no recovery, occurred at the site due to corrosion (internal and/or external) of the pipeline. Approximately 8,000 square feet (ft^2) of surface area was impacted by the release. Surficial soil saturated by the release was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm for treatment.

WHAT GROUNDWATER DEPTH
WHAT IS RANKING ?

In an effort to delineate the extent of impacted soil at the site, six (6) soil borings were advanced, by Environmental Plus, Inc. (EPI), at the site to depths ranging from 15 to 60 feet below ground surface (bgs) in October 2002 (Figure 2). Field analysis of soil samples collected at discreet intervals indicated organic vapor concentrations exceeded 100 parts per million (ppm) at least to a depth of 55 feet bgs in soil boring BH-1 (Table 1).

Excavation activities commenced at the site by EPI in June 2003 in order to remove soil impacted above the New Mexico Oil Conservation Division (NMOCD) remedial thresholds. Approximately 2,800 cubic yards of soil were excavated and run through a screener to separate the rock from the soil. After the soil and rock had been separated, the soil (approximately 950 cubic yards) was spread out into two land treatment areas and the rock was stockpiled on site. Upon the completion of excavation activities, composite samples were collected from the north sidewall, south sidewall, east sidewall, west sidewall and bottom of the excavation to document the successful removal of soil impacted above NMOCD remedial thresholds (Figure 2). Laboratory analysis of the samples indicated soil impacted above the NMOCD remedial thresholds remained in all sampling locals, with the exception of the west sidewall (Table 2).

EPI installed one (1) monitor well in July of 2004, one (1) monitor well in September of 2004, and three (3) monitoring wells in October of 2004 (Figure 2). Soil samples were collected from MW-1, 2, 3 and 4 at various horizons during the boring process of the well installation. No soil samples were collected during the boring of MW-1A due to its close proximity to MW-1. The majority of the samples collected exceeded the NMOCD thresholds for the various analytes (Table 1).

As a result of the presence of phase separated hydrocarbons (PSH) in each monitoring well EPI performed PSH recovery activities from September of 2004 to April of 2005. In May of 2005, Llano-Permian Environmental (LPE) took over the PSH recovery activities. In an effort to accelerate the PSH recovery at the 8" Moore to Jal #1 site, LPE began bi-weekly PSH recovery upon commencement of PSH recovery activities in May 2005. Approximately seventy (70) gallons of PSH has been recovered on a weekly basis since the middle of May 2005.

The land treatment areas were sampled by EPI on December 15, 2004, in conjunction with the weekly site visit. Sampling results indicated contaminant levels in the land treatment area soil were above the NMOCD remedial thresholds for this site (Table 3). The land treatment areas have been turned to aerate the soils and accelerate the TPH degradation since the last sampling event and will continue until the implementation of the restoration activities that are generally described in the "Restoration Activities" section of this work plan. Sampling of the land treatment areas is slated for late June of 2005.

Excavation Activities

Due to the evidence of the excavation confirmation composite sampling (Table 2), the east sidewall of the excavation will be cut back an additional two feet (2'), and the north and south sidewalls will be cut back an additional one foot (1') (Figure 4) . At that point a photo ionization detector (PID) will be used to determine if any portion of the three (3) sidewalls have remaining contaminated soil that requires excavation. If and when areas of concern are identified with the PID, they will be excavated until an acceptable PID reading (<100 ppm) is established in that area. The soils removed from the excavation will be placed in one of the land treatment areas. Large rocks removed from the east sidewall will be placed in the on-site rock pile.

Once no areas of concern are detected with the PID on the excavated sidewalls, then grab confirmation samples will be collected as outlined in the "Sampling Activities" section of this work plan. No excavation will be performed on the excavation floor or west side wall. Prior sampling activities have shown the west sidewall to be below the NMOCD Remedial Threshold of 100 mg/kg. Additional grab confirmation samples will be collected on the excavation floor as outlined in the "Sampling Activities" section of this work plan.

Sampling Activities

Confirmation grab samples will be collected on the east, north and south sidewalls, as well as the excavation floor after the completion of excavation activities on the east, north and south sidewalls (Figure 3). The confirmation samples on the excavation floor will be grab samples collected from a predetermined grid. The grid will be laid out as two (2) rows of six (6) samples running the length of the excavation. The samples in each row will be fifty feet (50') apart. The end samples will be thirty-five feet (35') from the north and south sidewalls.

The confirmation samples collected from the north, east, and south sidewalls will also be grab samples. On the east sidewall, four (4) grab confirmation samples will be collected along the length of the excavation. The sampling locations will be approximately one hundred fifteen feet (115') apart with the first and last samples being collected at the corner of the north and south sidewalls respectively. The general sampling locations along the east sidewall will be screened in the field with the PID. Following the field screening activities the east sidewall samples will be collected from the location of the maximum PID reading or at the base of the excavation wall if no PID readings are detected.

The north and south sidewalls will each have one (1) grab confirmation sample collected in addition to the first and last sample of the east sidewall. The north and south sidewalls will be

screened in the field with the PID. Following the field screening activities the additional north and south sidewall samples will be collected from the location of the maximum PID readings or on the west end at the base of the excavation sidewall if no PID readings are detected.

A total of eighteen (18) confirmation grab samples will be collected throughout the excavation. Each sample collected will be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by SW-846 Method 8021, and total petroleum hydrocarbons (TPH) by SW-846 Method 8015. Each sample will be collected using new disposable sampling equipment for each sample to prevent cross contamination. Any non-disposable sampling equipment that is used will be stainless steel, and will be decontaminated using a phosphate free surfactant and de-ionized water before the collection of each sample.

This section is submitted as a finalized sampling plan following the excavation activities, contingent on the approval of the NMOCD. Any changes requested by the NMOCD will be incorporated into the sampling activities of this work plan prior to implementation.

Soil Disposal Activities

No disposal activities are proposed at this time. All soils onsite will be placed back in the excavation, on top of the twelve millimeter (12 mill) black-on-black rock grade poly ethylene liner, as backfill. These activities are outlined in the "Restoration Activities" section of this work plan.

Modeling Activities

Prior to backfill activities a soil migration model will be run to evaluate the migration characteristics of the soils underneath the proposed liner. The installation of the liner is described in the "Restoration Activities" section of this work plan for illustration purposes. Current, historical, and the new data collected as part of this work plan will be utilized and evaluated in the model.

A seasonal compartment model, which simulates long-term pollutant fate and migration in the unsaturated soil zone, will be utilized to describe the following components of the site specific soil column which extends from the ground surface to the ground-water table.

- Pollutant concentrations and masses in the soil
- Pollutant migration to ground water.

The model will estimate all the above components on a monthly basis for 999 years of simulation time to perform a long-term leaching study. The following pollutant fate processes will be accounted for: Volatilization, Adsorption, Cation Exchange, Biodegradation, Hydrolysis, and Complexation.

Restoration Activities

Prior to the initiation of the restoration activities, MW-1 will be plugged and abandoned according to the guidelines described by Mr. Edwin Martin in his April 14, 2005 letter concerning the recommendation in the 2004 Annual Monitoring Report. MW-1A will be vertically extended to a level above the top of the excavation, and the top of casing will be re-surveyed. With the monitoring well extended to a level accessible after the backfill activities, the bottom of the excavation will be filled with an even six inch (6") layer of sand. A twelve millimeter (12 mill) black-on-black rock grade polyethylene liner will then be placed on the sand covering the base of the excavation. A small hole will be cut through the liner to encompass MW-1A which will be left in the excavation. Clay packing material will be utilized to seal the opening in the liner around the monitor well casing. An additional six inch (6") layer of sand will be placed on top of the liner.

With the poly liner in place, backfill of the excavated materials will begin. A layer of the rock material will first be carefully placed back in the excavation. Then a layer of the soils from the land treatment area will be placed on top of the first rock layer. The two layers will then be properly compacted. This alternating of layers and compacting activities will continue to the top of the excavation taking great care to insure the integrity of MW-1A and the pipeline. Only soils, no rock, will be place in the proximity of either the pipeline or MW-1A. Clean backfill will be used in during the backfill activities as needed.

Conclusion

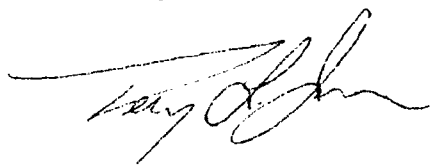
Prior to any site restoration activities, the results of the additional excavation activities and confirmation soil sampling activities, as well as the modeling exercise will be presented to the NMOCD. Upon concurrence from the NMOCD that all soils activities are complete, a more detailed site restoration plan will be prepared and submitted to the NMOCD. The restoration activities presented in this plan are for informational purposes only. Soil aeration activities in the land treatment areas will continue until such time that the restoration activities commence.

Signatures

Written By:

Louis B. Sanchez Jr. B.S
Project Manager
Llano-Permian Environmental

Reviewed By:



Terry James B.S., M.S.
Senior Project Manager
Llano-Permian Environmental

Figures

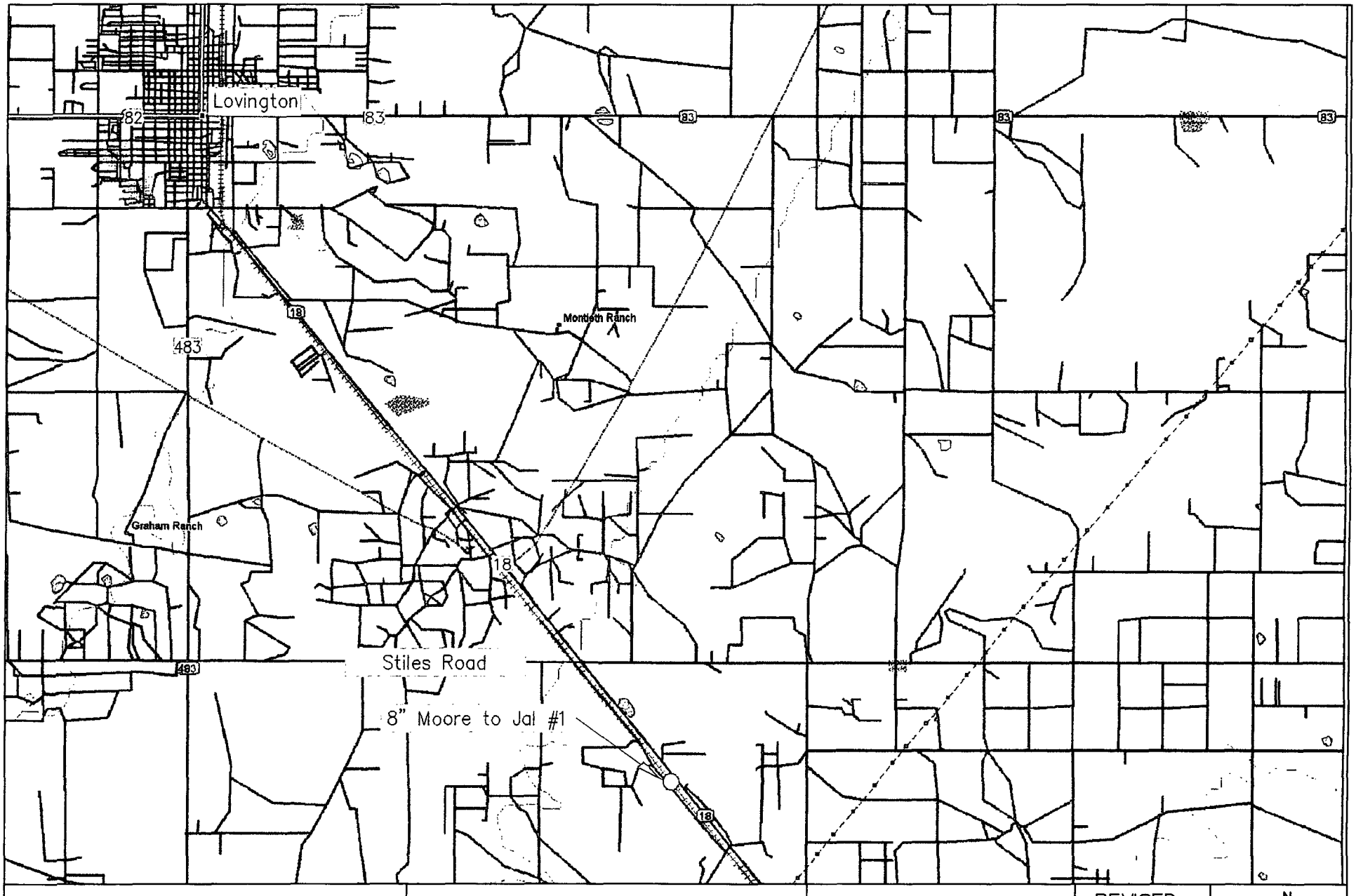


Figure 1 Area Map Plains Pipeline, L.P. 8" Moore to Jal #1	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 16, T17S, R37E N 32° 50' 13.8" W 103° 15' 25.3" Elevation: 3,770 feet amsl	DWG Date: March 2005	REVISED: June 2005	N
		0 1.5 3.0 Miles	SHEET 1 of 1	

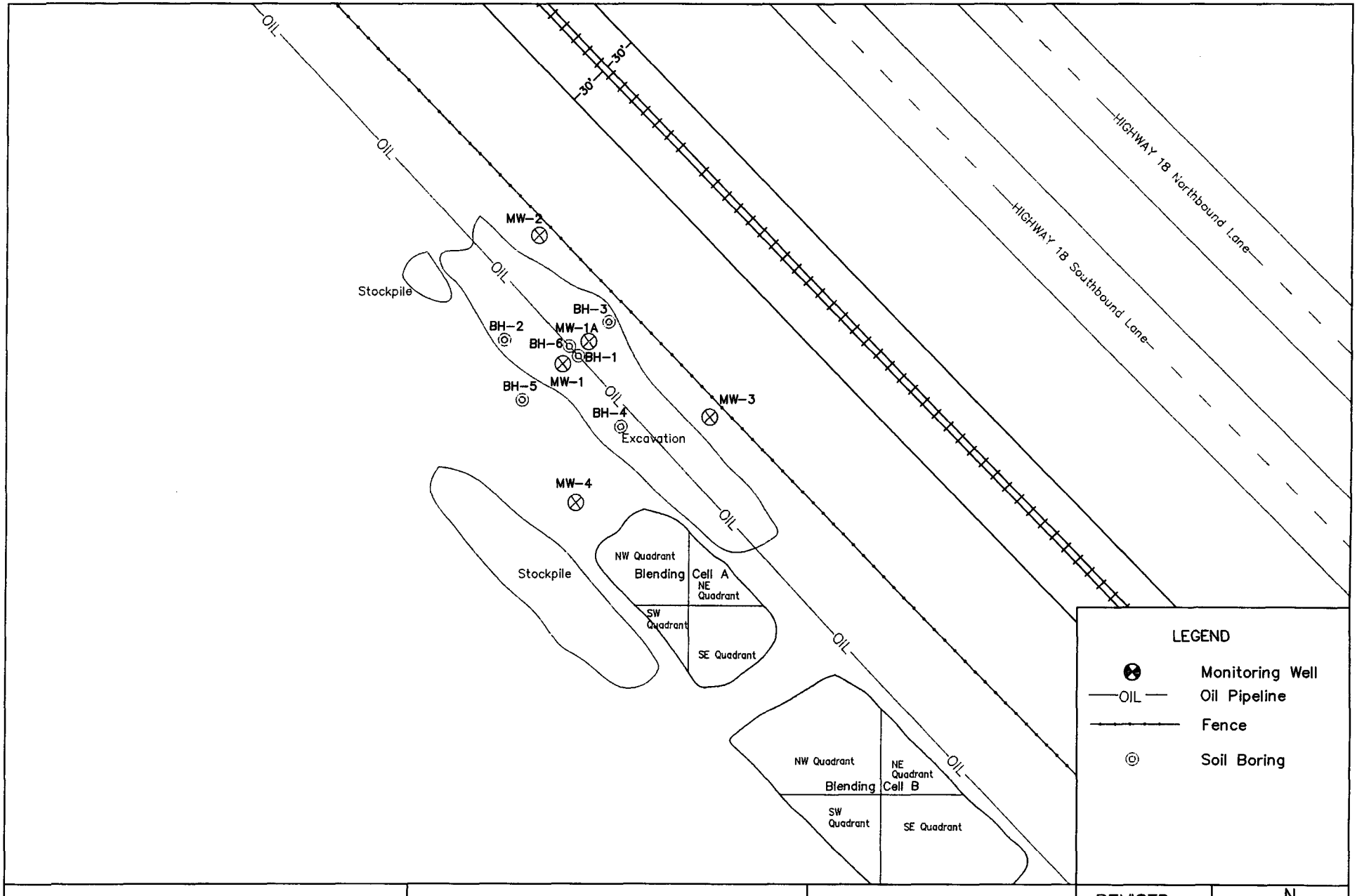


Figure 2 Site Map Plains Pipeline, L.P. 8" Moore to Jal #1	Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 16, T17S, R37E N 32 50' 13.8" W 103° 15' 25.3" Elevation: 3,770 feet amsl	DWG Date: March 2005	REVISED: May 2005	SHEET 1 of 1

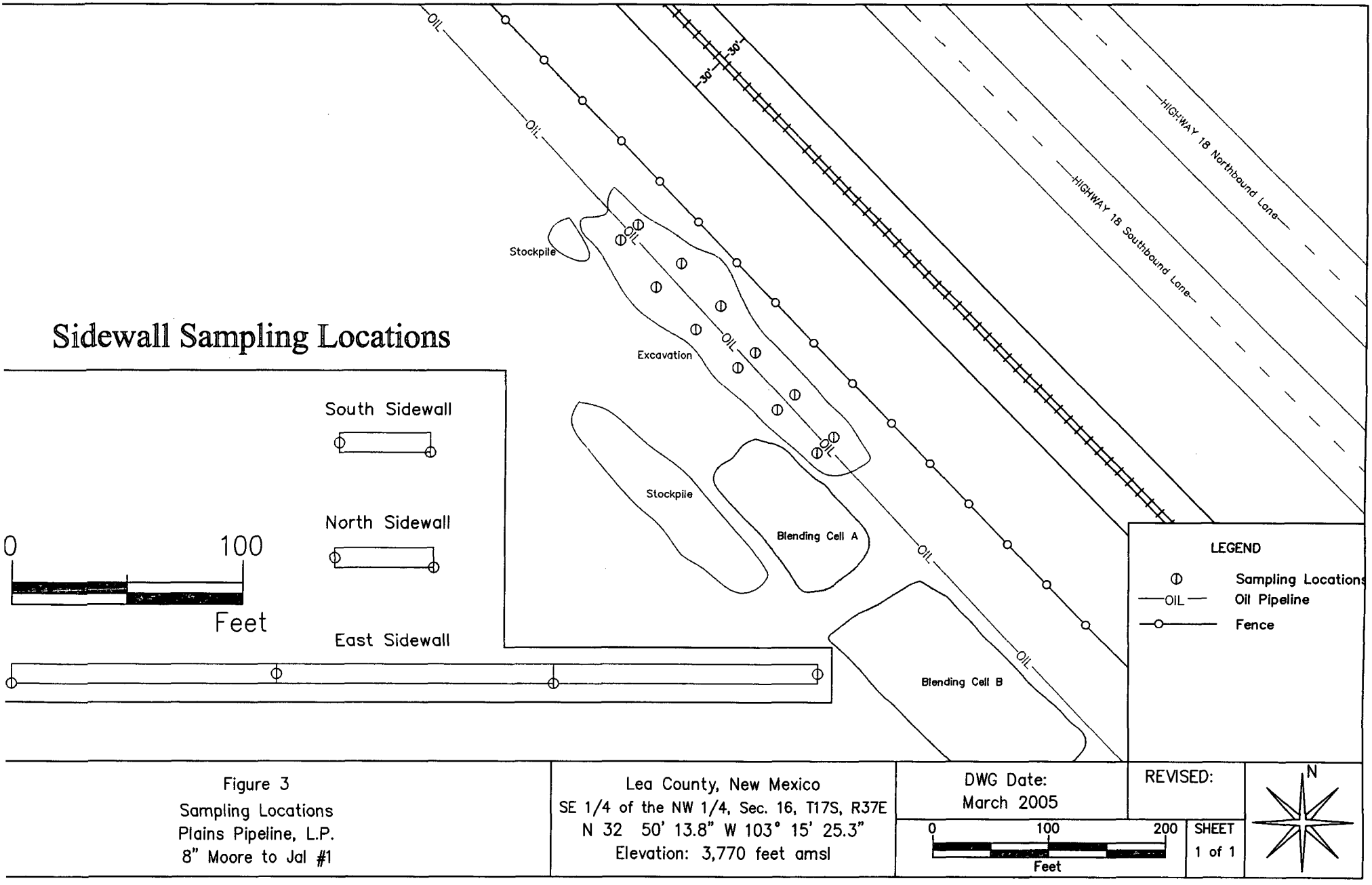


Figure 3
Sampling Locations
Plains Pipeline, L.P.
8" Moore to Jal #1

Lea County, New Mexico
SE 1/4 of the NW 1/4, Sec. 16, T17S, R37E
N 32 50' 13.8" W 103° 15' 25.3"
Elevation: 3,770 feet amsl

DWG Date:
March 2005

REVISED:

0 100 200
Feet

SHEET
1 of 1

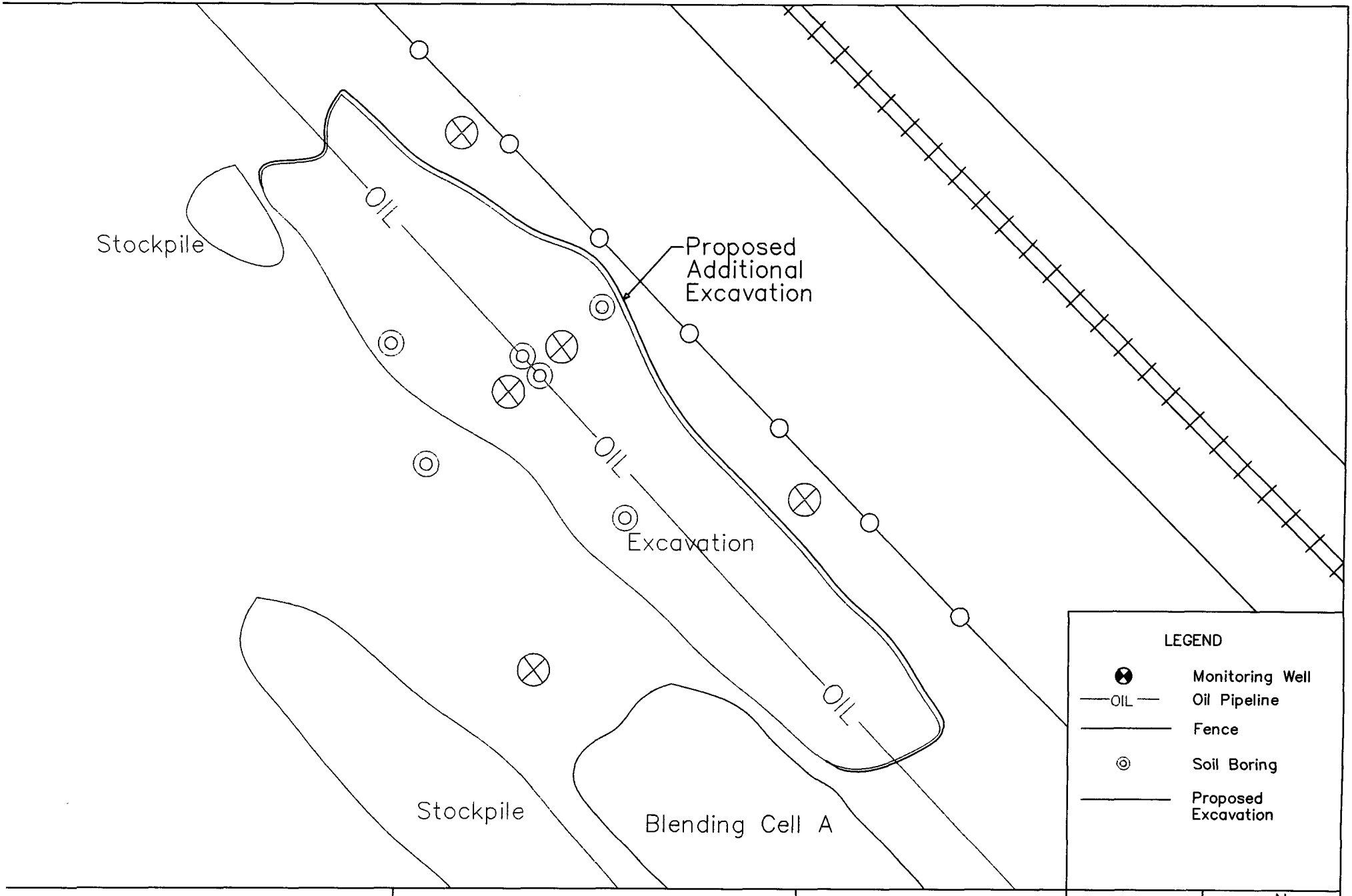


Figure 4
Proposed Excavation Locations
Plains Pipeline, L.P.
8" Moore to Jal #1

Lea County, New Mexico
SE 1/4 of the NW 1/4, Sec. 16, T17S, R37E
N 32 50' 13.8" W 103° 15' 25.3"
Elevation: 3,770 feet amsl

DWG Date:
June 2005

REVISED:

0 100 200
Feet

SHEET
1 of 1

N

Tables

Llano-Permian Environmental
318 East Taylor Street, Hobbs, New Mexico 88240
Phone: 505/393-4261, FAX: 505/393-4658

Table 1

SUMMARY OF ENVIRONMENTAL BORING RESULTS (SOIL)

Plains All American Pipeline, LP. - 8" Moore to Jal #1 - Ref #2002-10270

Sample ID	Sample Date	Soil Boring	PID Readings (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-benzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gas) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
SE8M102302BH1 (5-7)	23-Oct-02	BH-1	695	29.7	168	88.6	151	59.2	497	6810	5950	12760
SE8M102302BH1 (10-12)			505	35.9	256	142	227	89.1	750	11400	9960	21360
SE8M102302BH1 (15-17)			306	19.8	241	165	225	92.1	743	9000	9220	18220
SE8M102302BH1 (20-22)			1,350	38.7	290	150	217	85.2	781	9450	8140	17590
SE8M102302BH1 (25-27)			1,223	94.6	500	251	359	142	1,347	14400	13400	27800
SE8M102302BH1 (30-32)			682	114	342	174	285	109	1024	16600	10400	27000
SE8M102302BH1 (35-37)			510	65.9	302	157	292	113	929.9	16800	17400	34200
SE8M102302BH1 (40-42)			1,583	32	153	86.5	164	68.7	504.2	8440	11500	19940
SE8M102302BH1 (45-47)			384	30.2	210	118	207	82.2	647.4	8900	8180	17080
SE8M102302BH1 (50-52)			589	159	572	255	429	169	1584	20800	12700	33500
SE8M102302BH1 (55-57)			485	285	809	341	563	223	2221	40400	25200	65600
SE8M102302BH1 (60-62)			NA	449	1300	689	1180	496	4114	103000	79500	182500
SE8M102402BH2 (5-7)	24-Oct-02	BH-2	1.6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH2 (10-12)			2.9	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH2 (15-17)			3.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH3 (5-7)	24-Oct-02	BH-3	1.6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH3 (10-12)			2.9	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH3 (15-17)			1.3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102402BH4 (5-7)	24-Oct-02	BH-4	46.4	191	628	300	374	151	1644	17100	10900	28000
SE8M102402BH4 (10-12)			225	175	494	270	395	160	1494	22800	11900	34700
SE8M102402BH4 (15-17)			3.3	NS	NS	NS	NS	NS	NS	NS	NS	NS
SE8M102402BH4 (20-22)			NA	76.2	296	135	262	100	869.2	14700	10400	25100
SE8M102402BH4 (25-27)			3.0	NS	NS	NS	NS	NS	NS	NS	NS	NS
SE8M102402BH4 (30-32)			NA	140	442	228	420	163	1393	20600	15800	36400

SE8M102402BH4 (35-37)	24-Oct-02	BH-4 con't	1.7	NS	NS	NS	NS	NS	NS	NS	NS	NS
SE8M102402BH4 (50-52)			NA	118	291	93.6	157	55.5	715.1	9040	6700	15740
SE8M102502BH5 (5-7)	25-Oct-02	BH-5	3.0	224	749	344	486	196	1999	29500	18000	47500
SE8M102502BH5 (10-12)			1.3	70.6	347	176	347	136	1076.6	15100	14900	30000
SE8M102502BH5 (15-17)			0.0	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102502BH5 (25-27)			NA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102502BH5 (35-37)			NA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102502BH6 (5-7)	25-Oct-02	BH-6	NA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102502BH6 (10-12)			NA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
SE8M102502BH6 (15-17)			NA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<5	<5	<10
2002-10270 (10-12)	26-Jul-04	MW-1	2,982	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (15-17)			2,565	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (20-22)			1,574	14.6	43.6	23.3	34.3	15.4	131	4,210	3,950	8,160
2002-10270 (25-27)			1,558	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (30-32)			1,160	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (35-37)			1,049	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (40-42)			927	80.0	144	74.1	94.5	45.5	438	7,710	6,450	14,200
2002-10270 (45-47)			1,125	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (50-52)			1,227	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (55-57)			2,124	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (60-62)			710	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (65-67)			906	NA	NA	NA	NA	NA	NA	NA	NA	NA
2002-10270 (70-72)			1,543	11.6	25.1	13.9	20.0	9.56	80.2	2,280	2,870	5,150
MW-2 (20-25)	23-Oct-04	MW-2	62.2	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	<10.0	<10.0
MW-2 (25-30)			59.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (30-35)			68.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (35-40)			53.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (40-45)			73.3	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	6.59[4]	<10.0
MW-2 (45-50)			224	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (50-55)			1,838	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (55-60)			875	139	434	158	308	105	1,140	8,550	9,390	17,900
MW-2 (60-65)			800	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (15-20)	24-Oct-04	MW-3	12.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (20-25)			100	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	6.86[4]	17.4	17.4
MW-3 (25-30)			40.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (30-35)			75.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (35-40)			144	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-3 (40-45)	24-Oct-04	MW-3 con't	216	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (45-50)			350	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (50-55)			1,653	0.226	2.97	2.97	6.64	2.59	15.4	481	1,100	**1,580**
MW-3 (55-60)			534	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3 (60-65)			740	**139**	252	107	159	58	**715**	4,930	5,790	**10,720**
MW-4 (15-20)	22-Oct-04	MW-4	153	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.125	<10.0	7.84[4]	<10.0
MW-4 (20-25)			18.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (25-30)			155	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (30-35)			120	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (35-40)			67.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (40-45)			254	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (45-50)			186	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (50-55)			249	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (55-60)			820	**205**	460	187	328	127	**1,310**	9,970	11,100	**21,100**
MW-4 (60-65)			596	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (65-70)			447	0.295	0.253	0.0567	0.115	0.0419	0.762	81.9	165	**247**
NMOCD Remedial Thresholds				**10**					**50**			**100**

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*

[2] *NA : Not Analyzed*

[3] *NS : No Sample Recovery*

[4] *Detected, but below the Reporting Limit; therefore, result is an estimated concentration (CLP-J Flag).*

Llano-Permian Environmental
318 East Taylor Street, Hobbs, New Mexico 88240
Phone: 505/393-4261, FAX: 505/393-4658

Table 2

SUMMARY OF EXCAVATION ANALYTICAL RESULTS (SOIL)

Plains All American Pipeline, LP. - 8" Moore to Jal #1 - Ref #2002-10270

Sample ID	Sample Date	Sample Location	Field PID Analysis (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
SEMR31302NSW	13-Mar-02	North Sidewall		<25	937	3,590	4,410	2,140	11,077	224	545	**769**
SEMR31302RAMP	13-Mar-02	Ramp		<25	<25	<25	<25	<25	<125	<10	<10	<10
SEMR51302SP	13-May-02	Stockpile		<1	<1	<1	<1	<1	NA	NA	NA	NA
SEMR51702BCC3'	17-May-02	Bottom -3'		<25	<25	<25	<25	<25	<125	<10	<10	<10
SE8M1112503WSW	25-Nov-03	West Sidewall Composite	NA	<0.025	<0.025	<0.025	0.040	<0.025	0.040	<10.0	74.2	74.2
SE8M1112503ESW	25-Nov-03	East Sidewall Composite	NA	0.082	0.679	0.558	1.14	0.423	2.88	144	2,420	2,564
SE8M1112503SSW	25-Nov-03	South Sidewall Composite	NA	<0.025	<0.025	<0.025	0.078	<0.025	0.078	<10.0	144	144
SE8M1112503NSW	25-Nov-03	North Sidewall Composite	NA	<0.025	0.179	0.197	0.577	0.230	1.18	49.1	317	366
SE8M1112503BH	25-Nov-03	Bottomhole Composite	NA	0.235	0.992	0.500	1.15	0.543	3.42	175	9,240	9,415
NMOCD Remedial Thresholds				**10**					**50**			**100**

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*
[2] *NA : Not Analyzed*
[3] *NS : Not Sampled*
[4] *Detected, but below the Reporting Limit; therefore, result is an estimated concentration (CLP-J Flag).*

Table 3

Summary of Land Treatment Analytical Results (Soil)

8" Moore to Jal #1 - Ref #2002-10270

Sample ID	Sample Location	Sample Date	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	m,p-Xylenes (mg/Kg)	o-Xylene (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
NE-A	Northeast Quadrant of Cell A	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	1,310	**1,310**
SE-A	Southeast Quadrant of Cell A	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	664	**664**
SW-A	Southwest Quadrant of Cell A	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	542	**542**
NW-A	Northwest Quadrant of Cell A	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	987	**987**
SE-B	Southeast Quadrant of Cell B	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	1,140	**1,140**
SW-B	Southwest Quadrant of Cell B	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	1,470	**1,470**
NE-B	Northeast Quadrant of Cell B	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	1,240	**1,240**
NW-B	Northwest Quadrant of Cell B	15-Dec-04	NA	NA	NA	NA	NA	NA	<5	1,170	**1,170**
NMOCD Remedial Thresholds			**10**					**50**			**100**

[1] *Bolded values are in excess of the NMOCD Remediation Thresholds*

[2] *NA : Not Analyzed*

[3] *NS : Not Sampled*

[4] *Detected, but below the Reporting Limit; therefore, result is an estimated concentration (CLP-J Flag).*

INCIDET # nLWJ0522671591 PLAINS EOTT 8 INCH MOORE TO JAL No. 1 ENV INS eLWJ 0522671[illegible] SURF FLWJ 0522670674 ADMIN PLWJ 0522672046

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **EOTT**	Contact **Frank Hernandez**
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name 8" Moore to Jal #1	Facility Type 8" Steel Pipeline

Surface Owner	Mineral Owner	Lease No.
State of New Mexico		

W Peter - E

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32° 50' 12.36"N Lon. 103° 15' 26.234"W.
16	16	T17S	R37E					

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 200 bbls barrels	Volume Recovered 0 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence EOTT	Date and Hour of Discovery 10-18-02 @ 8:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Pat McCasland, EPI	Date and Hour 10-18-02 @ 11:00 AM Pat McCasland EPI left message with Paul Sheeley and sent page to the "ON-CALL" representative	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
8" Steel Pipeline Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of.

Describe Area Affected and Cleanup Action Taken.*
8,000 sqft ~200' x 40' Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of. Remedial Goals: TPH 8015m = 1000 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	**OIL CONSERVATION DIVISION**	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: October 23, 2003 Phone: 915.638.3799	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary