

# SITE CHARACTERIZATION AND CLOSURE REPORT

WSDDU #1 AND #2

NMOCD 1RP#1163 #1600

EPI REF. NO. 2001-11152

PLAINS PIPELINE, L. P. NO. 231735

UL-F (SE ¼ OF THE NW ¼) OF SECTION 31 T24S R38E

~6.4 MILES NORTHEAST OF JAL

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 10' 32.87" LONGITUDE: W 103° 06' 05.4"

**NOVEMBER 2007**

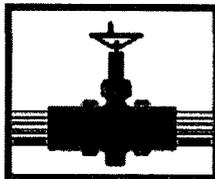
*PREPARED BY:*

ENVIRONMENTAL PLUS, INC.

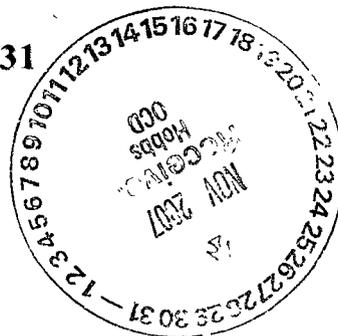
2100 AVENUE O

EUNICE, NEW MEXICO 88231

*PREPARED FOR:*



**PLAINS**  
ALL AMERICAN  
PIPELINE, L.P.



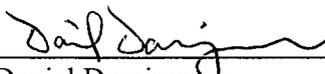
# Standard of Care

## Site Characterization and Closure Report

### Plains Pipeline, L.P. – WSDDU #1 and #2

The information provided in this report was collected consistent with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills and Releases* (August 13, 1993), the NMOCD *Unlined Surface Impoundment Closure Guidelines* (February 1993), and the Environmental Plus, Inc. (EPI) *Standard Operating Procedures and Quality Assurance/Quality Control Plan*. The conclusions are based on field observations and laboratory analytical reports as presented in the report. Recommendations follow NMOCD guidance and represent the professional opinions of EPI staff. These opinions were arrived at with currently accepted geologic, hydrogeology and engineering practices at this time and location. The report was prepared or reviewed by a certified or registered EPI professional with a background in engineering, environmental and/or the natural sciences.

This report was prepared by:

  
\_\_\_\_\_  
Daniel Dominguez  
Environmental Consultant

11-14-07  
\_\_\_\_\_  
Date

This report was reviewed by:

  
\_\_\_\_\_  
David P. Duncan  
Civil Engineer

11-14-07  
\_\_\_\_\_  
Date

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**Distribution List**

**Plains Pipeline, L.P. – WSDDU #1 and #2  
NMOCD IRP # 1163; Company No. 231735**

<b>Name</b>	<b>Title</b>	<b>Company or Agency</b>	<b>Mailing Address</b>	<b>e-mail</b>
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## Project Synopsis

### *Site Specific:*

- ◆ **Company Name:** Plains Pipeline, L.P.
- ◆ **Facility Name:** WSDDU #1 and #2
- ◆ **Project Reference:** 1RP#1163
- ◆ **Company Contacts:** Daniel Bryant
- ◆ **Site Location:** WGS84 N32° 10' 32.87"; W103° 06' 05.4"
- ◆ **Legal Description:** Unit Letter F, (SE¼ of the NW¼), Section 31, T24S, R38E
- ◆ **General Description:** approximately 6.4-miles northeast of Jal, NM
- ◆ **Elevation:** 3,103-ft amsl
- ◆ **Depth to Groundwater:** approximately 75-80 ft bgs
- ◆ **Land Ownership:** George Willis
- ◆ **EPI Personnel:** Project Consultant – Jason Stegemoller

### *Release Specific:*

- ◆ **Product Released:** Crude Oil
- ◆ **Volume Released:** #1 – 100 bbls; #2 – 70 bbls
- ◆ **Volume Recovered:** #1 – 0 bbls; #2 – 45 bbls
- ◆ **Time of Occurrence:** #1 - 10/18/01 @ 10AM; #2 – 12/20/01 @ AM
- ◆ **Time of Discovery:** #1 - 10/18/01 @ 2:30PM; #2 – 12/20/01 @ AM
- ◆ **Release Source:** 4" steel pipeline; probable integrity loss due to internal corrosion; line was replaced and activitated.
- ◆ **Initial Surface Area Affected:** approximately 7,414-ft<sup>2</sup>

### *Remediation Specific:*

- ◆ **Final Vertical extent of contamination:** approximately 50-ft bgs
- ◆ **Water wells within 1,000-ft:** 0      **Surface water bodies within 1,000-ft:** 0
- ◆ **NMOCD Site Ranking Index:** 20 points
- ◆ **Remedial goals for Soil:** TPH – 100 mg/kg; BTEX – 50 mg/kg; Benzene – 10 mg/kg
- ◆ **RCRA Waste Classification:** Non-Exempt
- ◆ **Remediation Option Selected:** a) Excavated soil impacted above NMOCD remedial goals; b) laboratory analyzed samples to confirm removal of impacted soil above NMOCD Remedial Threshold Goals from sidewalls; c) installed 20-mil thick polyethylene liner in excavation bottom; d) managed excavated soil in land spread area adjacent to and west of the release site; e) backfilled excavation with soil attenuated from land-spread; f) site will be reseeded in late spring 2008
- ◆ **Project Completion Date:** July 6, 2006

## 1.0 Summary

This report addresses site investigation and remediation of the Plains Pipeline, L.P. (Plains) WSDDU #1 and #2 releases. WSDDU #1 occurred on October 18, 2001 effecting approximately 7,414 square feet (160-ft x 90-ft) of surface area. The initial release consisted of approximately 100-barrels (bbls) of crude oil with zero (0) bbls recovered. WSDDU #2 occurred on December 20, 2001 and was contained inside the initial release area excavation. The secondary release consisted of approximately 70-bbls of crude oil with 45-bbls recovered (reference *Figure 3, Appendix A and Appendix C*). The site is located in Unit Letter-F (SE¼ of the NW¼) of Section 31, Township 24 South, Range 38 East at Latitude 32° 10' 32.87"N and Longitude 103° 06' 05.4"W approximately 6.4 miles northeast of Jal, Lea County, New Mexico on property owned by Mr. George Willis (reference *Figures 1 and 2*).

In October 2001, Plains retained Environmental Plus, Inc. (EPI) of Eunice, New Mexico to delineate and remediate impacted soil above New Mexico Oil Conservation Division (NMOCD) remedial threshold goals as outlined in Item 3.0 (*NMOCD Site Ranking*). On October 19, 2001 EPI personnel completed an initial site assessment (i.e., mapping and photographing) of the release area. The Initial C-141 – *Release Notification and Corrective Action* form was submitted on October 18, 2001 to the NMOCD documenting release of crude oil.

From October 22 to 24, 2001 EPI personnel advanced a series of fourteen (14) soil borings (BH-1 through BH-14) to delineate the lateral and vertical extent of contamination (reference *Figure 4, Table 1 and Appendix B*). Visibly impacted soil in the release site was excavated from an area of approximately 8,200-square feet to a depth of 10-feet below ground surface (bgs). Impacted soil was placed on a land-spread adjacent to the site for treatment (reference *Figure 3*).

Three (3) temporary groundwater monitoring wells were installed at the site on March 29, 2006 to access local groundwater. Sampling of the wells indicated groundwater was not impacted by either release (reference *Figure 6 and Table 6*).

In June 2006, impacted "in-situ" soil below the 10-foot bgs interval was isolated with installation of a 20-mil polyethylene liner and the excavation was backfilled with attenuated land-spread soil.

Remediation of the release site commenced on October 18, 2001 and was completed on July 6, 2006.

## **2.0 Site Description**

### ***2.1 Geological Description***

*The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961*, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments (i.e., fine to medium sand) with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil."

The release site is located within the Monument Draw drainage feature. Nicholson and Clebsch describe Monument Draw as "a well-defined, sharply incised cut about 30 feet deep; but there is no through going drainage course."

### ***2.2 Ecological Description***

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Quercus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses and weeds. Mammals represented, include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, and the Mule Deer. Reptiles, amphibians, and birds are numerous and typical of area. A survey of listed, threatened, or endangered species was not conducted.

### ***2.3 Area Groundwater***

Records from the New Mexico Office of the State Engineer (NMOSE) indicate an average depth to water between 75-80 feet bgs. Therefore, three (3) groundwater monitor wells were installed at the site and groundwater was determined to be at a depth of ~75-80 feet bgs. According to the USGS Groundwater Report #6, groundwater gradient in the area of the release is generally southeast.

### ***2.4 Area Water Wells***

Based on available records, no water supply wells exist within 1,000-feet of the release site. Available information indicates the nearest well (#2119) is located approximately 1,505 feet south-southeast (down gradient) of the release site (reference *Table 5*).

### ***2.5 Area Surface Water Features***

No surface water bodies exist within 1,000-feet of the release site which is located within the Monument Draw drainage feature.

### 3.0 NMOCD Site Ranking

Contaminant delineation and remedial work done at this site indicate that the chemical parameters of the soil and the physical parameters of the ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- ◆ *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*
- ◆ *Unlined Surface Impoundment Closure Guidelines (February 1993)*

Acceptable thresholds for contaminants/constituents of concern (CoC) were determined based on the NMOCD Ranking Criteria as follows:

- ◆ *Depth to Groundwater ( i.e., distance from the lower most acceptable concentration to the groundwater);*
- ◆ *Wellhead Protection Area ( i.e., distance from fresh water supply wells); and*
- ◆ *Distance to Surface Water Body (i.e., horizontal distance to all down gradient surface water bodies).*

Based on the proximity of the site to protected area water wells and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is twenty (20) points with the soil remedial goals highlighted in the Site Ranking table presented below:

1. Groundwater	2. Wellhead Protection Area	3. Distance to Surface Water	
Depth to GW <50 feet: <b>20 points</b>	If <1,000' from water source, or; <200' from private domestic water source: <b>20 points</b>	<200 horizontal feet: <b>20 points</b>	
Depth to GW 50 to 99 feet: <b>10 points</b>		200-1,000 horizontal feet: <b>10 points</b>	
Depth to GW >100 feet: <b>0 points</b>	If >1,000' from water source, or; >200' from private domestic water source: <b>0 points</b>	>1,000 horizontal feet: <b>0 points</b>	
<b>Site Rank (1+2+3) = 20 + 0 + 0 = 20 points</b>			
<b>Total Site Ranking Score and Acceptable Remedial Goal Concentrations</b>			
<b>Site Ranking</b>	<b>20 or &gt;</b>	<b>10</b>	<b>0</b>
<b>Benzene<sup>1</sup></b>	<b>10 ppm</b>	<b>10 ppm</b>	<b>10 ppm</b>
<b>BTEX<sup>1</sup></b>	<b>50 ppm</b>	<b>50 ppm</b>	<b>50 ppm</b>
<b>TPH</b>	<b>100 ppm</b>	<b>1,000 ppm</b>	<b>5,000 ppm</b>

<sup>1</sup> A field soil vapor headspace measurement of 100 ppm may be substituted for a laboratory analysis of the benzene and BTEX concentration limits.

#### **4.0 Subsurface Soil Investigation**

From October 22 to 24, 2001 a series of fourteen (14) soil borings (BH-1 through BH-14) were advanced to delineate the lateral and vertical extent of contamination (reference *Figure 4, Table 1 and Appendix B*). Samples were collected from each soil boring at a depth of 2-ft bgs, 5-ft bgs and 5-foot intervals thereafter. A portion of each soil sample was placed in a laboratory provided container and set on ice for transport to an individual laboratory for quantification of TPH and BTEX constituents concentrations. The remaining portion of each sample was analyzed in the field for the presence of organic vapors utilizing an UltraRae Photo-Ionization Detector (PID) equipped with a 9.8 electron Volt (eV) lamp. Laboratory analytical results indicated benzene concentrations ranged from 39,600 ug/Kg (BH-10 @ 2' bgs) to <20 ug/Kg (BH-10 @ 5' bgs). BTEX concentrations ranged from 508,500 ug/Kg (BH-10 @ 2' bgs) to <100 ug/Kg (BH-10 @ 15' bgs). TPH concentrations ranged from 14,320 mg/Kg (BH-10 @ 2' bgs) to <10 mg/Kg (BH-10 @ 15' bgs) (reference *Table 1*).

On December 17, 2003, soil samples were collected from the sidewalls and floor of the excavation and submitted to the laboratory for quantification of Constituents of Concern (CoCs) (reference *Figure 5, Table 2 and Appendix B*). Laboratory analytical results for the 5-point composite soil samples collected from the sidewalls indicated BTEX constituent concentrations were ND at or above laboratory MDL. TPH concentrations ranged from ND [east sidewall (SEWSDDU1-121703-ESWC)] at or above laboratory MDL to 176 mg/Kg [south sidewall (SEWSDDU1-121703-SSWC)] in excess of NMOCD remedial threshold goals. Laboratory analytical results for the 5-point composite soil samples collected from the excavation floor indicated benzene concentrations were ND at or above laboratory MDL. BTEX concentrations ranged from 1,023 µg/Kg [north floor (SEWSDDU1-121703-NBHC)] to 5,349 µg/Kg [south floor (SEWSDDU1-121703-SBHC)] below NMOCD remedial threshold goals. TPH concentrations were 3,344 mg/Kg [north floor (SEWSDDU1-121703-NBHC)] to 3,462 mg/Kg [south floor (SEWSDDU1-121703-SBHC)] exceeding NMOCD remedial threshold goals.

Due to the outcome of the confirmation samples collected on December 17, 2003, a soil boring (BH-1) was advanced through the floor of the excavation to a depth of 55-feet bgs to delineate vertical extent of contamination on February 4-5, 2004 (reference *Figure 5*). Laboratory analytical data of soil samples indicated benzene concentrations ranged from ND at or above laboratory MDL [BH-1 @ 50 and 55 feet bgs] to 945 µg/Kg [BH-1 @ 30 feet bgs]. BTEX constituent concentrations ranged from ND at or above laboratory MDL [BH-1 @ 50 and 55 feet bgs] to 66,145 µg/Kg [BH-1 @ 30 feet bgs]. TPH concentrations ranged from ND at or above laboratory MDL [BH-1 @ 55 feet bgs] to 7,940 mg/Kg [BH-1 @ 30 feet bgs] (reference *Table 3 and Appendix B*).

Confirmatory soil samples were collected on June 21, 2006 from the west, center, and east face of the excavation south sidewall (reference *Figure 8*). Laboratory analyses of the soil samples collected from the south sidewalls indicated TPH and BTEX concentrations were ND at or above laboratory MDL and below NMOCD remedial threshold goals (reference *Table 7 and Figure 8*).

## **5.0 Groundwater Investigation**

According to USGS Groundwater Report #6 *Geology and Ground-Water Conditions in Southern Lea County, New Mexico*, Alexander Nicholson, Jr. and Alfred Clebsch, Jr., groundwater gradient in the area of the release is generally to the southeast.

Three (3) temporary groundwater monitoring wells were installed at the site on March 29, 2006 to access local groundwater. TMW-1 was installed approximately 40-feet from the east edge of the release area, TMW-2 was installed approximately 60-feet up-gradient from the west edge of the release area and TMW-3 was installed approximately 60-feet down-gradient from the southeast edge of the release area (reference *Figure 6*). Groundwater was encountered between 75 and 80 feet below ground surface. Individual groundwater samples were collected from each well on April 4, 2006 and transported to an independent laboratory for quantification of BTEX constituent concentrations.

Groundwater samples collected from TMW-1, TMW-2 and TMW-3 indicated groundwater was not impacted by either release. In accordance with the New Mexico Water Quality Control Commission (NMWQCC) standards, additional groundwater monitoring was not warranted (reference *Table 6*). With NMOCD approval, the temporary well casings were extracted and bore holes plugged on June 6, 2006.

## **6.0 Remediation Process**

Remediation of the site commenced on October 18, 2001 and continued through July 6, 2006. Remedial activities at the site consisted of excavating and land-farming contaminated soil from the site. Contaminated soil removed from the site was placed on a land-spread area located west of the release site (reference *Figure 3*).

A three (3) foot wide clean soil border around the contaminated soil remaining on the floor of excavation was established by excavating in-situ impacted soil in the area of the south sidewall to a depth of 10-feet bgs. The soil was placed in the adjacent land-spread area. Adequate removal of impacted soil was verified by field PID analysis of grab soil samples collected from the excavation sides and floor. The floor of the excavation was sloped from center towards sidewalls to allow the polyethylene liner to shed infiltrating water.

Upon field confirmation, a three (3) foot wide clean soil buffer was established around the perimeter of the excavation. A 20-mil thick polyethylene liner was installed and the excavation backfilled with the attenuated soil from the land-spread area.

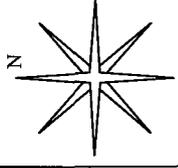
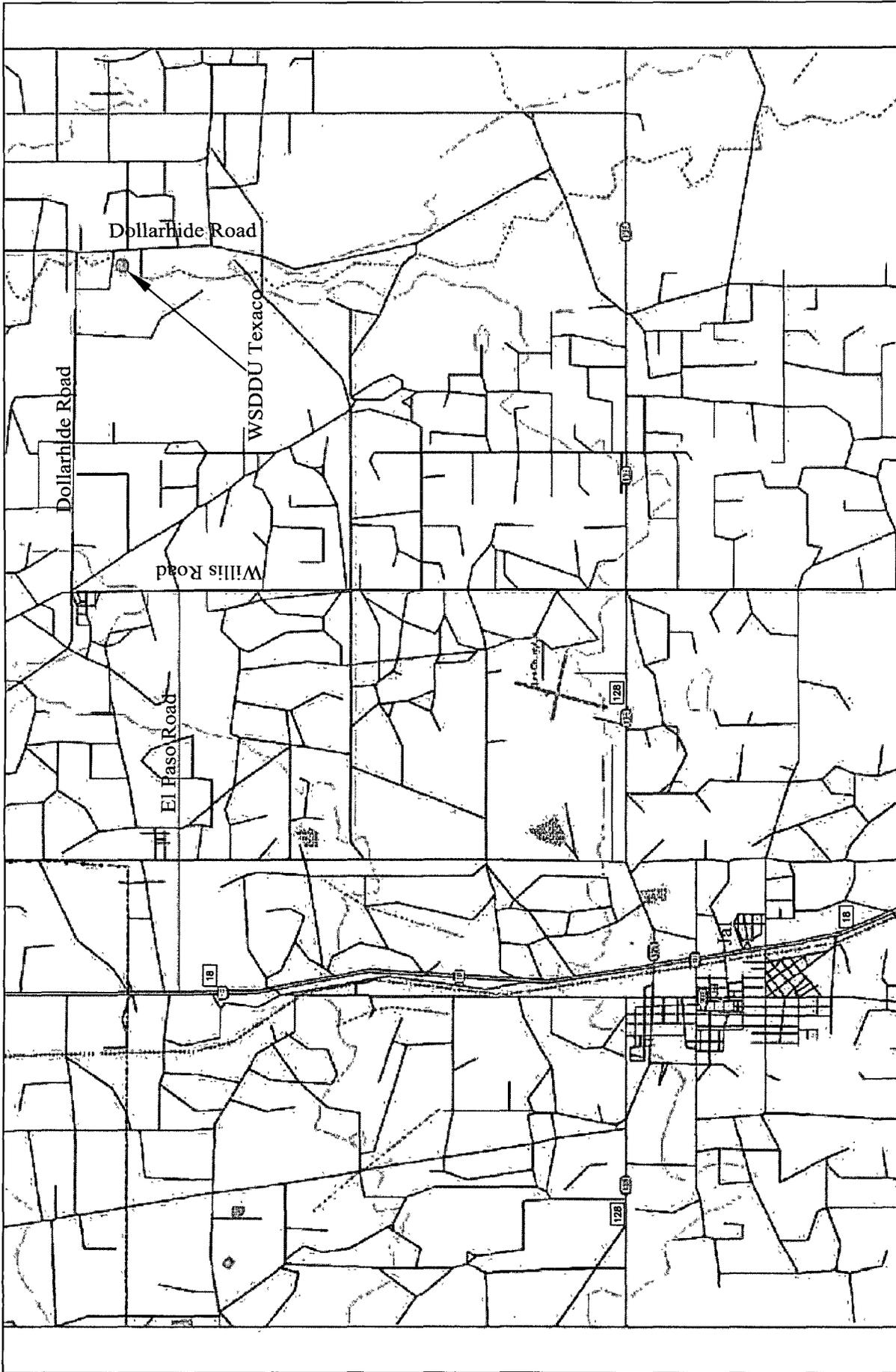
Excavated soil was managed in a land-spread fenced area adjacent to and west of the release site excavation. The soil lifts were disked several times and samples collected to determine remediation of CoCs. Laboratory analytical results from lift soil samples collected on December 2, 2005 indicated BTEX and TPH compounds had attenuated below NMOCD remedial goals with only nominal detections above laboratory MDL in the northwest quadrant sample (reference *Table 4*)

After backfilling, the ground surface was contoured to allow natural drainage of the area. The area will be seeded in late spring of 2008 when moisture levels are high and survival of the newly emerged grass is greater.

## 7.0 Closure Justification

This report documents successful remediation of the release site. Soil impacted above NMOCD remedial thresholds was excavated and treated in a land-spread area established adjacent to the release site. After placement of a 20-mil polyethylene liner in the bottom, the site was backfilled with attenuated land-spread soil. Based on the data presented in this report, Environmental Plus, Inc., on behalf of Plains Pipeline, L.P., requests NMOCD require “no further action” at this site and issue a *Site Closure Letter* to Plains Pipeline, L.P.

# FIGURES

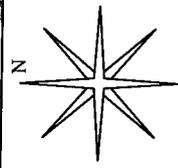
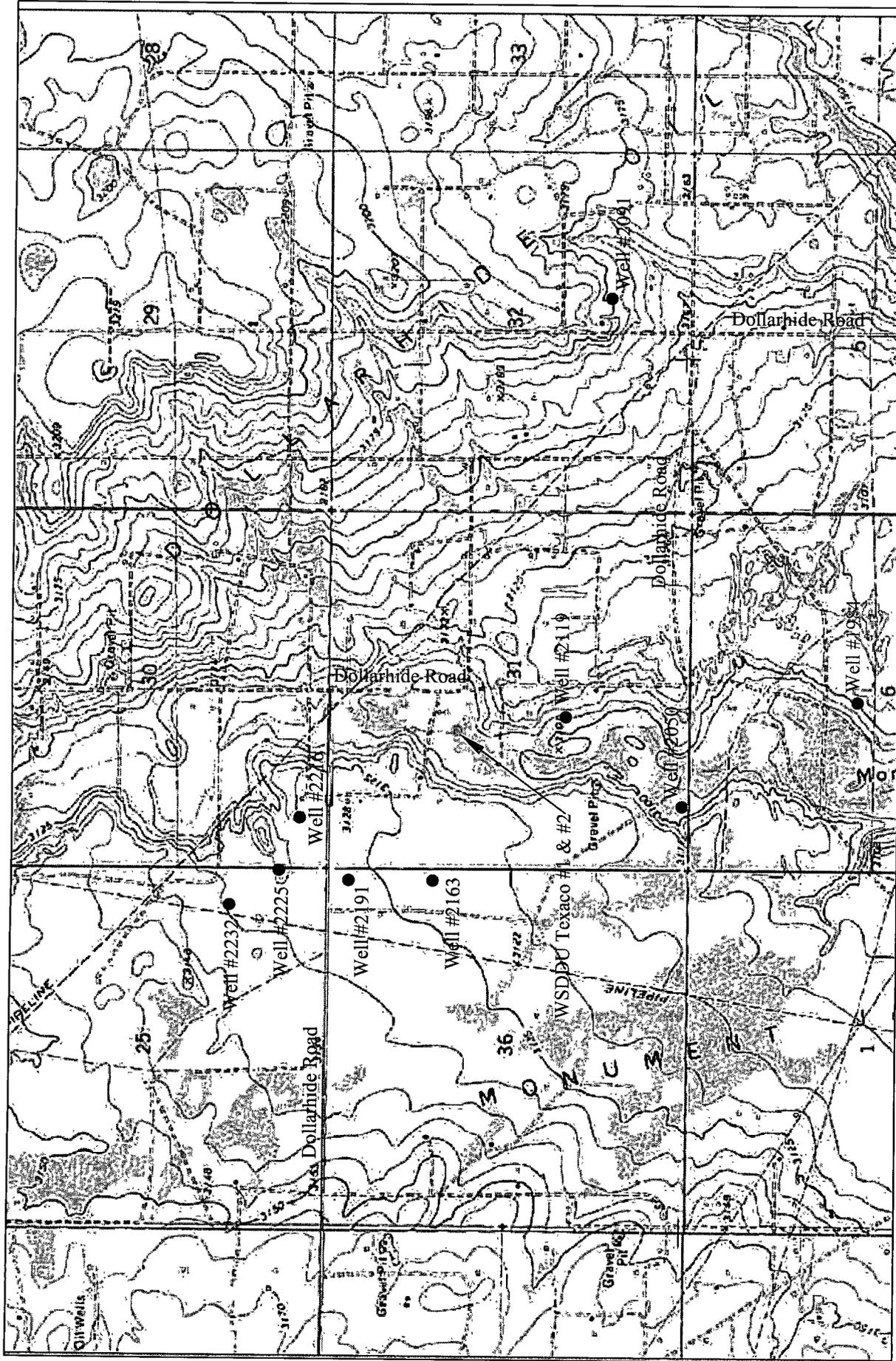


REVISED:  
 DWG By: Iain Olness  
 June 2004



Lea County, New Mexico  
 SE 1/4 of the NW 1/4, Sec. 31, T24S, R38E  
 N 32° 10' 32.9" W 103° 06' 05.4"  
 Elevation: 3,102 feet amsl

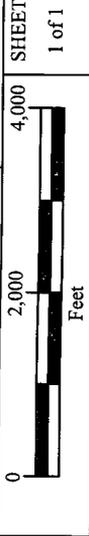
Figure 1  
 Area Map  
 Plains All American  
 WSSDDU Texaco

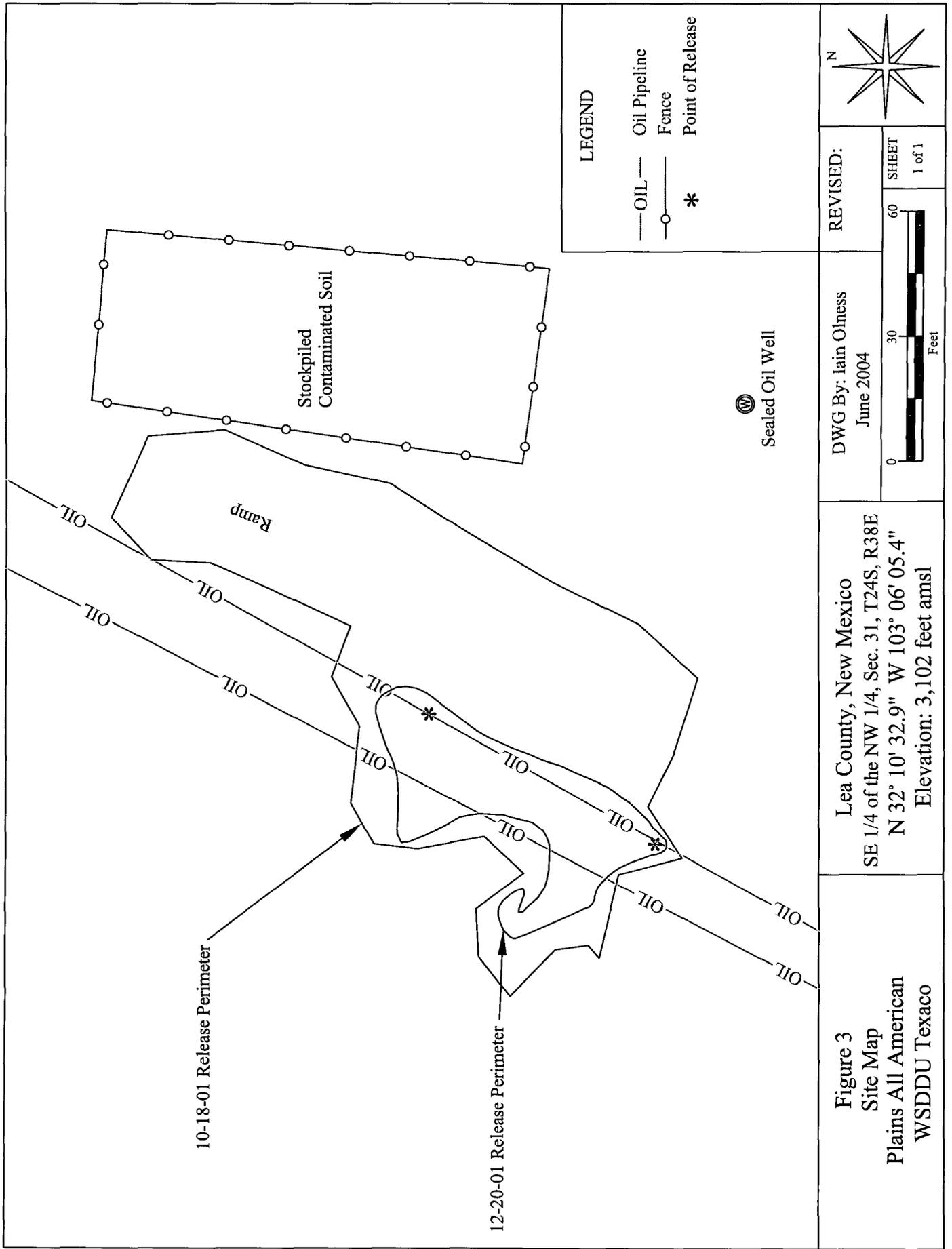


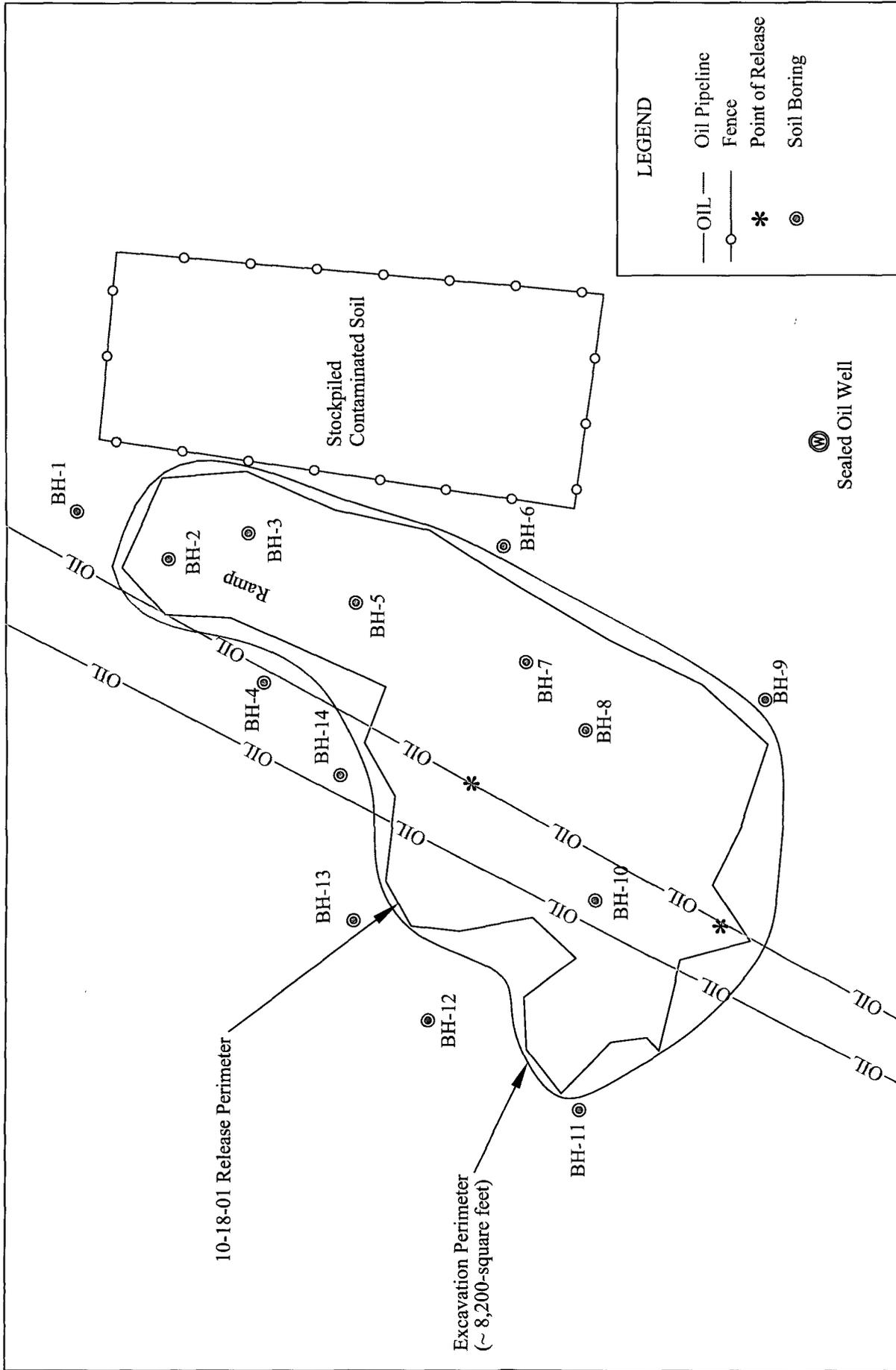
REVISED:  
 DWG By: Iain Olness  
 June 2004

Lea County, New Mexico  
 SE 1/4 of the NW 1/4, Sec. 31, T24S, R38E  
 N 32° 10' 32.9" W 103° 06' 05.4"  
 Elevation: 3,102 feet amsl

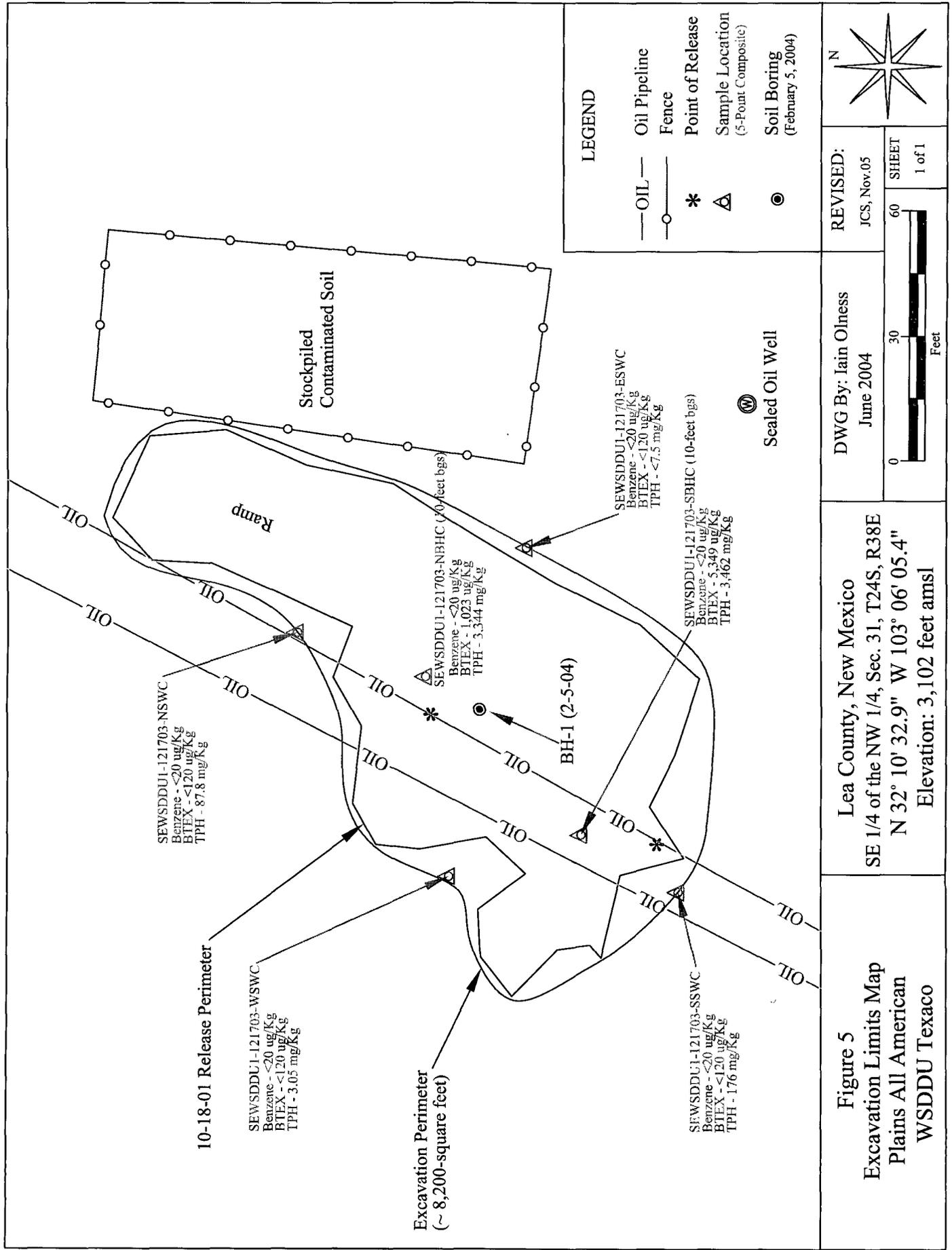
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 Site Location Map  
 Plains All American  
 WSDDU Texaco

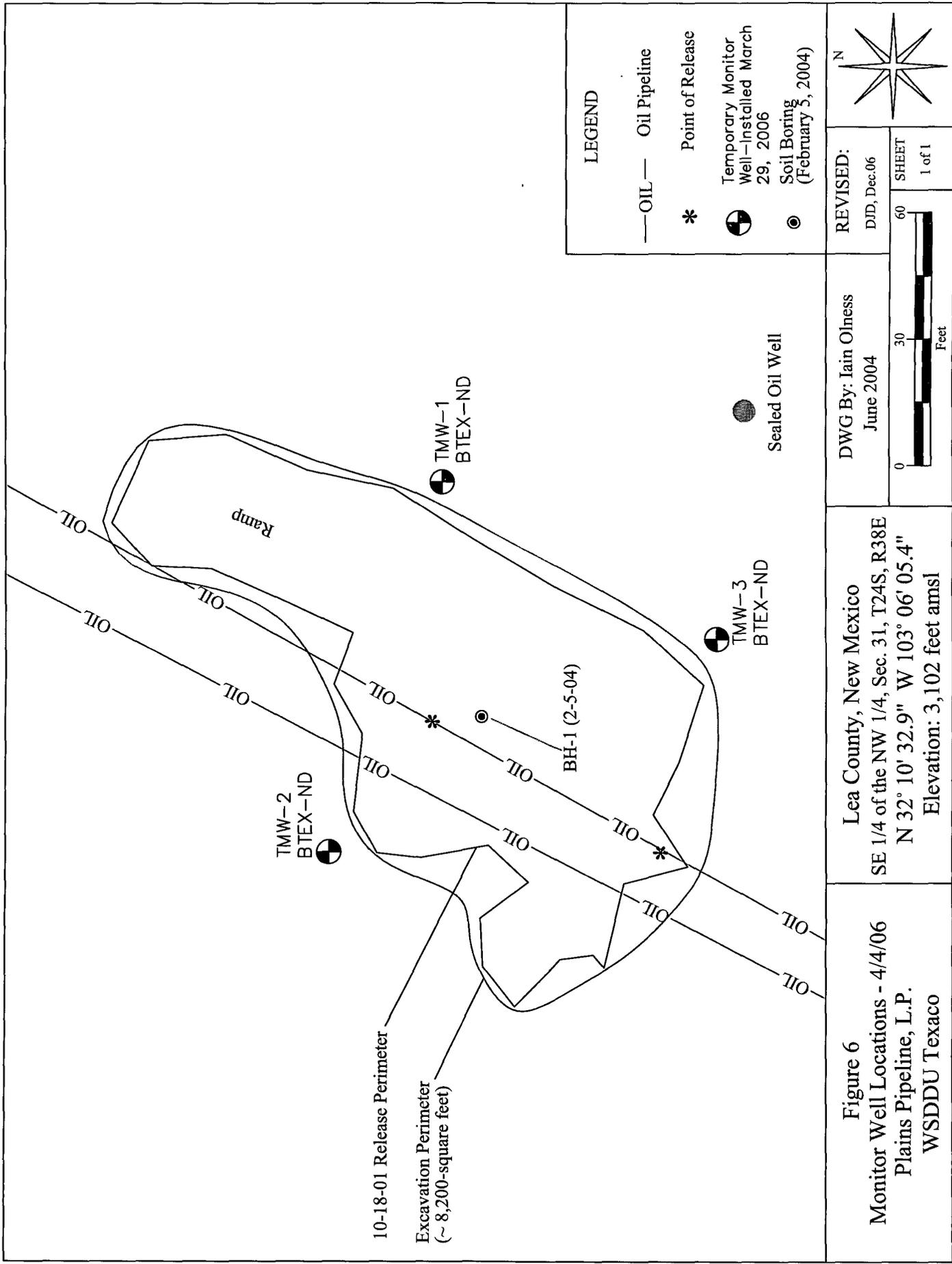


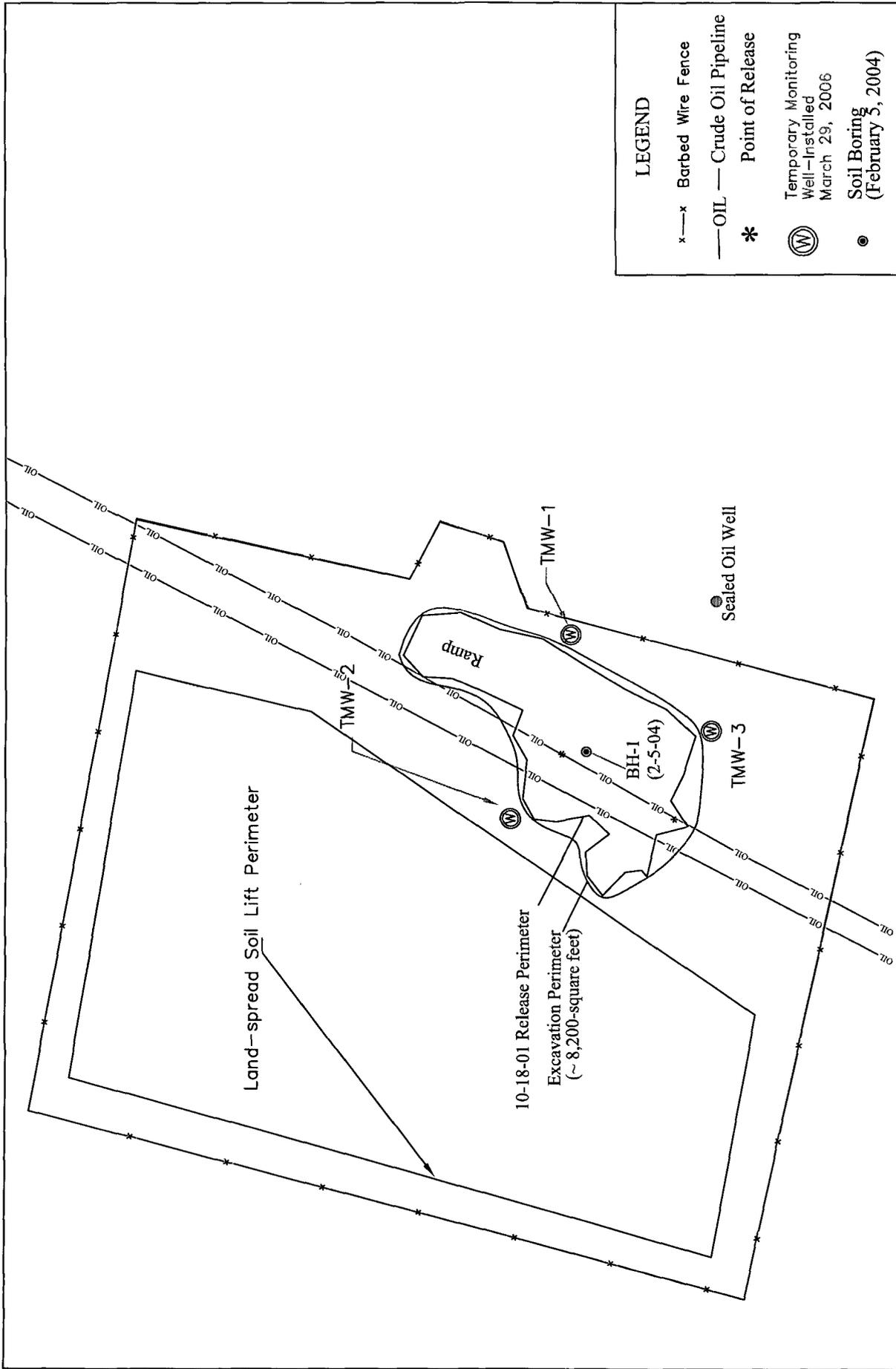




<p><b>Figure 4</b> Soil Boring Location Map Plains All American WSSDU Texaco</p>	<p>Lea County, New Mexico SE 1/4 of the NW 1/4, Sec. 31, T24S, R38E N 32° 10' 32.9" W 103° 06' 05.4" Elevation: 3,102 feet amsl</p>		<p>DWG By: Iain Olness June 2004</p>	<p>REVISED: JCS, Nov.05</p>	<p>SHEET 1 of 1</p>
	<p>0 30 60 Feet</p>		<p>North Arrow</p>		







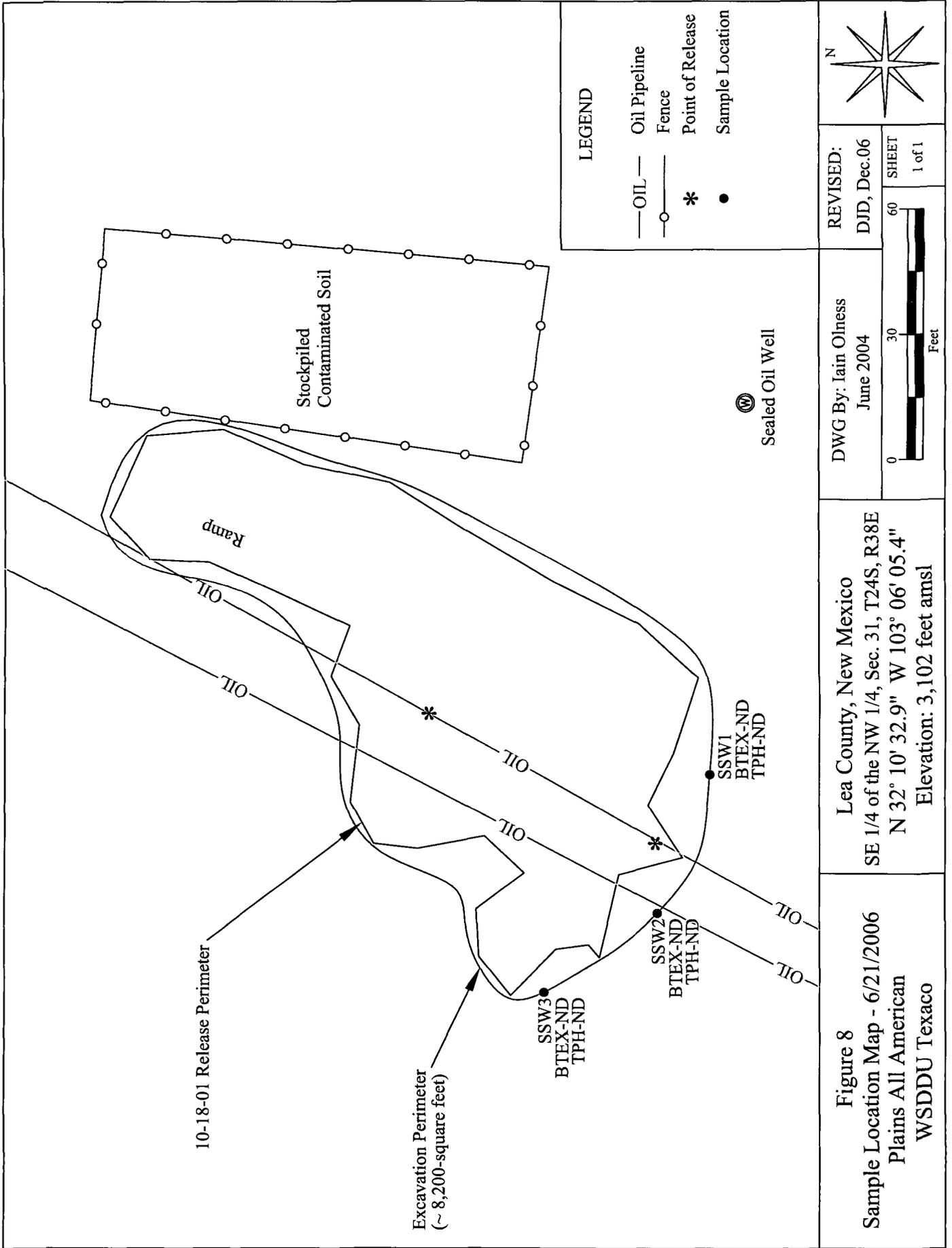
**Figure 7**  
**Land-spread Soil Area**  
**Plains Pipeline, L.P.**  
**WSDDU Texaco**

Lea County, New Mexico  
 SE 1/4 of the NW 1/4, Sec. 31, T24S, R38E  
 N 32° 10' 32.9" W 103° 06' 05.4"  
 Elevation: 3,102 feet amsl

DWG By: Iain Olness  
 June 2004

REVISID:  
 PWM, Dec.05  
 SHEET  
 1 of 1

LEGEND  
 x-x Barbed Wire Fence  
 —OIL— Crude Oil Pipeline  
 \* Point of Release  
 Temporary Monitoring Well—Installed March 29, 2006  
 Soil Boring (February 5, 2004)



**TABLES**

**TABLE 1**  
**Summary of Soil Boring Analytical Results**  
**Plains Pipeline, L.P.**  
**WSDDU Texaco #1 (Ref. #2001-11152) and #2 (Ref. #2001-11219)**

Sample Name	Borehole	Interval (feet bgs)	PID Analysis (ppm)	Soil Status	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl- benzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TPH (mg/Kg)
EWSDDU102201BH1-2'	BH-1	2	0.9	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH1-5'		5	0.7	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH1-10'		10	0.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH1-15'		15	0.5	In Situ	<20	<20	<20	<40	<100	11.9	<5	11.9
EWSDDU102201BH2-2'	BH-2	2	1.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH2-5'		5	1.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH2-10'		10	3.0	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH2-15'		15	2.9	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH3-2'	BH-3	2	218	Excavated	<20	57.3	424	1,556	2,037	256	281	537
EWSDDU102201BH3-5'		5	37.1	Excavated	<20	<20	<20	<40	<100	<5	6.65	6.65
EWSDDU102201BH3-10'		10	13.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH3-15'		15	2.4	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH4-2'	BH-4	2	1.9	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH4-5'		5	1.3	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH4-10'		10	1.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH4-15'		15	2.4	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH5-2'	BH-5	2	451	Excavated	<20	54	239	855	1,148	203	553	756
EWSDDU102201BH5-5'		5	640	Excavated	130	5,670	6,420	18,470	30,690	1,390	3,010	4,400
EWSDDU102201BH5-10'		10	412	Excavated	<20	1,250	1,880	6,380	9,510	344	746	1,090
EWSDDU102201BH5-15'		15	7.3	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH5-20'		20	2.4	In Situ	<20	<20	21.4	<40	21.4	<5	<5	<10
EWSDDU102201BH6-2'	BH-6	2	6.2	In Situ	<20	24.6	<20	23.7	48.3	<5	<5	<10
EWSDDU102201BH6-5'		5	16.6	In Situ	<20	31.6	31.7	42.9	106	<5	15.1	15.1
EWSDDU102201BH6-10'		10	27.1	In Situ	<20	<20	<20	<40	<100	6.11	57.2	63.3
EWSDDU102201BH6-15'		15	3.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH7-2'	BH-7	2	442	Excavated	3,890	32,200	20,300	51,600	107,990	4,120	5,500	9,620
EWSDDU102201BH7-5'		5	426	Excavated	<20	1,070	1,400	4,510	6,980	529	904	1,433
EWSDDU102201BH7-10'		10	84.3	Excavated	<20	<20	47	154	201	36.3	130	166
EWSDDU102201BH7-15'		15	2.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102201BH7-20'		20	3	In Situ	<20	<20	<20	<40	<100	<5	<5	<10

**TABLE 1**  
**Summary of Soil Boring Analytical Results**  
**Plains Pipeline, L.P.**  
**WSDDU Texaco #1 (Ref. #2001-11152) and #2 (Ref. #2001-11219)**

Sample Name	Borehole	Interval (feet bgs)	PID Analysis (ppm)	Soil Status	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl- benzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TPH (mg/Kg)
EWSDDU102401BH8-2'	BH-8	2	556	Excavated	5,200	40,700	24,300	60,800	<b>131,000</b>	5,210	6,870	<b>12,080</b>
EWSDDU102401BH8-5'		5	448	Excavated	8,070	58,300	31,900	79,000	<b>177,270</b>	5,080	6,780	<b>11,860</b>
EWSDDU102401BH8-10'		10	860	Excavated	2,740	21,600	10,900	29,800	<b>65,040</b>	2,710	3,890	<b>6,600</b>
EWSDDU102401BH8-15'		15	10	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH8-20'		20	9.3	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH9-2'	BH-9	2	3.2	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH9-5'		5	2.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH9-10'		10	2	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH9-15'		15	2.3	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH10-2'	BH-10	2	397	Excavated	<b>39,600</b>	181,000	81,700	206,200	<b>508,500</b>	8,520	5,800	<b>14,320</b>
EWSDDU102401BH10-5'		5	368	Excavated	<20	211	469	1,588	2,268	253	697	950
EWSDDU102401BH10-10'		10	49.5	Excavated	<20	<20	32.2	87.4	120	14.1	27.9	42.0
EWSDDU102401BH10-15'		15	0.2	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH11-2'	BH-11	2	65.7	In Situ	<20	<20	24.9	61.0	85.9	<5	<5	<10
EWSDDU102401BH11-5'		5	0.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH11-10'		10	1.4	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH11-15'		15	0.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH12-2'	BH-12	2	1.6	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH12-5'		5	0.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH12-10'		10	0.2	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH12-15'		15	0	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH13-2'	BH-13	2	3.1	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH13-5'		5	2.4	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH13-10'		10	1	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH13-15'		15	0	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH14-2'	BH-14	2	0.9	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH14-5'		5	1.8	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH14-10'		10	0.5	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
EWSDDU102401BH14-15'		15	0.4	In Situ	<20	<20	<20	<40	<100	<5	<5	<10
NMOCD Remedial Thresholds					10,000				50,000			100

ppm = parts per million, which is equivalent to milligrams per kilogram

mg/Kg = milligrams per kilogram, which is equivalent to parts per million

µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram

NS = Not Sampled

Results in **Bold** are above the remedial action levels as set by the NMOCD

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes

PID = Photoionization Detector

TABLE 2  
Summary of Excavation Analytical Results  
 Plains Pipeline, L.P.  
 WSDDU #1 (Ref. # 2001-11152) and WSDDU #2 (Ref. #2001-111219)

Sample Name	Date	Depth (feet)	PID Analysis (ppm)	Soil Status	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TPH (mg/Kg)
SEWSDDU1-121703-NSWC	17-Dec-03	2 to 10	NA	In Situ	<20	<20	<20	<60	<120	<5	87.8	87.8
SEWSDDU1-121703-SSWC	17-Dec-03	2 to 10	NA	In Situ	<20	<20	<20	<60	<120	<5	176	176
SEWSDDU1-121703-ESWC	17-Dec-03	2 to 10	NA	Excavated	<20	<20	<20	<60	<120	<5	<2.5	<7.5
SEWSDDU1-121703-WSWC	17-Dec-03	2 to 10	NA	In Situ	<20	<20	<20	<60	<120	<5	<2.5	3.05
SEWSDDU1-121703-NBHC	17-Dec-03	10	NA	Excavated	<20	253	150	848	1,023	104	3,240	<b>3,344</b>
SEWSDDU1-121703-SBHC	17-Dec-03	10	NA	Excavated	<20	299	1,150	3,900	5,349	392	3,070	<b>3,462</b>
<b>NMOCD Remedial Thresholds</b>					10,000				50,000			100

ppm = parts per million, which is equivalent to milligrams per kilogram  
 mg/Kg = milligrams per kilogram, which is equivalent to parts per million  
 µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram  
 NA = Not Analyzed  
 Results in **Bold** are above the remedial action levels as set by the NMOCD

GRO = Gasoline Range Organics  
 DRO = Diesel Range Organics  
 BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes  
 PID = Photoionization Detector  
 Comp = Composite sample

**TABLE 3**  
**Summary of February 4, 2004 Soil Boring Analytical Results**  
**Plains Pipeline, L.P.**  
**WSDDU #1 (Ref. # 2001-11152) and WSDDU #2 (Ref. #2001-111219)**

Sample Identification	Sample Location	Interval (feet bgs)	Sample Date	Lithology	PID Analysis (ppm)	Soil Status	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TPH (mg/Kg)
SLEWSDDU2404BBH30	BH-1	30	04-Feb-04	Dark Brown Sand	522	In Situ	945	12,700	12,900	39,600	<b>66,145</b>	1,990	5,950	<b>7,940</b>
SLEWSDDU2504BBH35		35	05-Feb-04	Brown Sand	690	In Situ	428	6,280	8,060	25,860	40,628	1,340	4,660	<b>6,000</b>
SLEWSDDU2504BBH40		40	05-Feb-04	Brown Sand	568	In Situ	536	12,900	9,860	30,100	<b>53,396</b>	1,610	5,320	<b>6,930</b>
SLEWSDDU2504BBH45		45	05-Feb-04	Beige Sandy Clay	240	In Situ	56.3	243	315	961	1,575	26.3	142	168
SLEWSDDU2504BBH50		50	05-Feb-04	Brown Sand	98.4	In Situ	<20	<20	<20	<60	<120	22	195	217
SLEWSDDU2504BBH55		55	05-Feb-04	Light Brown Sand	16.1	In Situ	<20	<20	<20	<60	<120	<5	<2.5	<7.5
<b>NMOCD Remedial Thresholds</b>							10,000				50,000			100

ppm = parts per million, which is equivalent to milligrams per kilogram  
mg/Kg = milligrams per kilogram, which is equivalent to parts per million  
µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram  
Results in **Bold** are above the remedial action levels as set by the NMOCD.  
bgs=below ground surface

GRO = Gasoline Range Organics  
DRO = Diesel Range Organics  
BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes  
PID = Photoionization Detector

**TABLE 4**  
**Summary of Land-spread Soil Analytical Results**

Plains Pipeline, L.P.

WSDDU #1 (Ref. # 2001-11152) and WSDDU #2 (Ref. #2001-111219)

Sample Name	Date	Depth (feet)	PID (ppm)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TPH (mg/Kg)
NW-Quad-Lift	2-Dec-05	5-pt Comp	NA	<25	41.0	34.6	44.9	121	<10	174	174
NE-Quad-Lift	2-Dec-05	5-pt Comp	NA	<25	<25	<25	<25	<25	<10	459	459
SW-Quad-Lift	2-Dec-05	5-pt Comp	NA	<25	<25	<25	<25	<25	<10	200	200
SE-Quad-Lift	2-Dec-05	5-pt Comp	NA	<25	<25	<25	<25	<25	<10	302	302
<b>NMOCD Remedial Thresholds</b>				10,000				50,000			100

ppm = parts per million, which is equivalent to milligrams per kilogram  
mg/Kg = milligrams per kilogram, which is equivalent to parts per million  
µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram  
NA = Not Analyzed  
Results in **Bold** are above the remedial action levels as set by the NMOCD

GRO = Gasoline Range Organics  
DRO = Diesel Range Organics  
BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes  
PID = Photoionization Detector  
Comp= Composite sample

**TABLE 5**  
**Summary of Area Groundwater Well Information**  
**Plains Pipeline, L.P.**  
**WSDDU Texaco #1 (Ref. #2001-11152) and #2 (Ref. #2003-00176)**

Well ID	Surface Elevation	Total Depth <sup>B</sup>	Base of Casing <sup>B</sup>	Static Elevation	Year Measured	Aquifer	Use	Owner	Distance & Direction from Source
2119	3,105	90	Unk.	3,028.56	1976	Unk.	Unk.	Unk.	1,504 feet SSE
2163	3,124	130	Unk.	3,032.05	1966	Unk.	Unk.	Unk.	2,215 feet WNW
2216	3,112	96	Unk.	3,044.55	1991	Unk.	C	Unk.	2,661 feet NW
2191	3,127	106	Unk.	3,036.80	1966	Unk.	Unk.	Unk.	2,720 feet NW
2225	3,134	108	Unk.	3,040.16	1968	Unk.	Irr.	Unk.	3,328 feet NW
2050	3,117	120	Unk.	3,017.15	1991	Unk.	Irr.	Unk.	3,328 feet SSW
2232	3,138	120	Unk.	3,058.73	1966	Unk.	Irr.	Unk.	4,188 feet NW
1984	3,093	92	Unk.	3,016.53	1970	Unk.	Unk.	Unk.	5,808 feet SSW
2091	3,195	845	Unk.	2,867.96	1981	Unk.	Irr.	Unk.	6,760 feet ESE

<sup>A</sup> = Feet above mean sea level (amsl)

<sup>B</sup> = Feet below ground surface (BGS)

Unk. = Unknown

C = Commercial

Irr. = Irrigation

**TABLE 6**  
**Summary of April 4, 2006 Groundwater Analytical Results**  
**Plains Pipeline, L.P.**  
**WSDDU #1 (Ref. # 2001-11152) and WSDDU #2 (Ref. #2001-111219)**

Sample Name	Date	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	m, p-Xylenes (µg/Kg)	o-Xylene (µg/Kg)	BTEX (µg/Kg)
MW-1	4-Apr-06	<1	<1	<1	<2	<1	<6
MW-2	4-Apr-06	<1	<1	<1	<2	<1	<6
MW-3	4-Apr-06	<1	<1	<1	<2	<1	<6
<b>NMOCD Remedial Thresholds</b>		10 ppm					50 ppm

µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram ppm = parts per million

BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes

Results in **Bold** are above the remedial action levels as set by the NMOCD

**TABLE 7**  
**Summary of June 21, 2006 Soil Analytical Results**  
**Plains Pipeline, L.P.**  
**WSDDU #1 (Ref. # 2001-11152) and WSDDU #2 (Ref. #2001-111219)**

Sample Name	Date	Depth (feet)	PID (ppm)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethylbenzene (µg/Kg)	Total Xylenes (µg/Kg)	BTEX (µg/Kg)	C6-C12 (mg/Kg)	C12-C28 (mg/Kg)	C28-C35 (mg/Kg)	TPH (mg/Kg)
SSW1	21-Jun-06	7	34.1	<25	<25	<25	<25	<25	<10	6.65	<10	<10
SSW2	21-Jun-06	7	41.2	<25	<25	<25	<25	<25	<10	<10	<10	<10
SSW3	21-Jun-06	7	33.6	<25	<25	<25	<25	<25	<10	<10	<10	<10
<b>NMOCD Remedial Thresholds</b>				10,000				50,000				100

ppm = parts per million, which is equivalent to milligrams per kilogram  
mg/Kg = milligrams per kilogram, which is equivalent to parts per million  
µg/Kg = micrograms per kilogram, which is equivalent to 0.001 milligrams per kilogram  
Results in **Bold** are above the remedial action levels as set by the NMOCD.

BTEX = Mass sum of benzene, toluene, ethylbenzene and total xylenes  
TPH = Total Petroleum Hydrocarbon

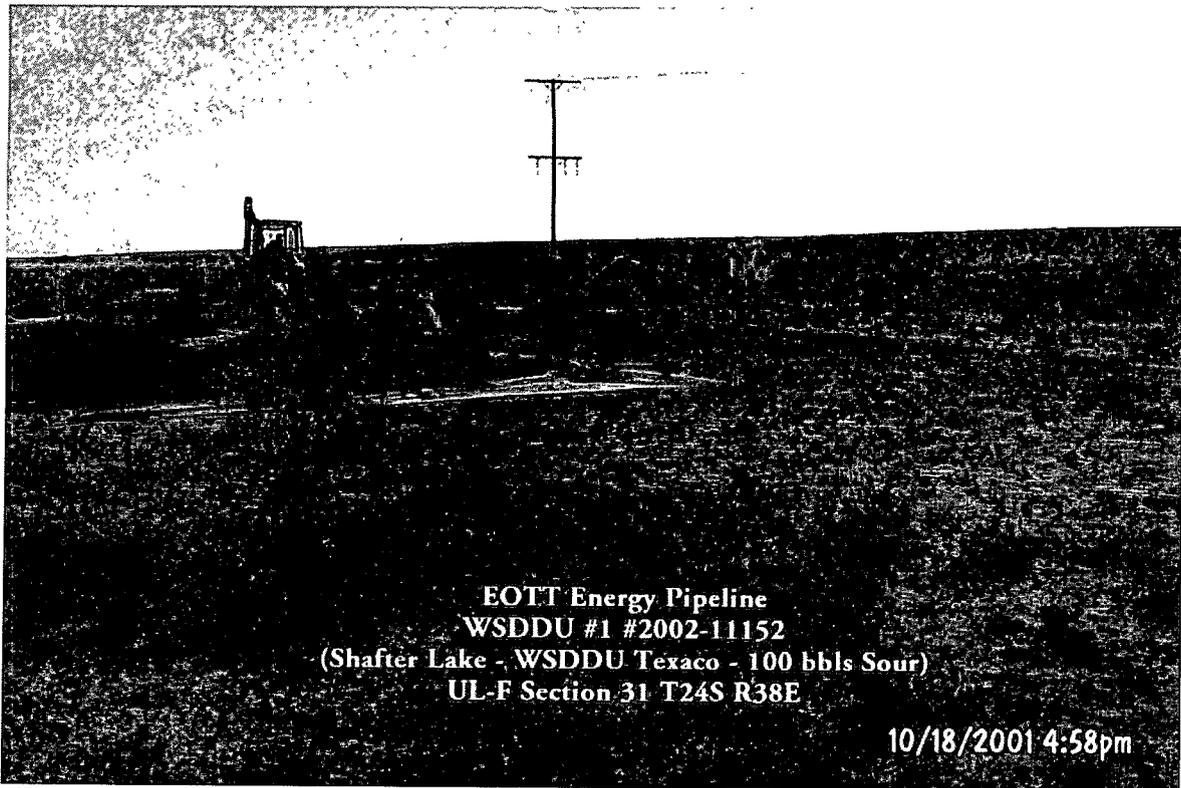
PID = Photoionization Detector

**APPENDIX I**

**SITE PHOTOGRAPHS**



EOTT Energy Pipeline  
WSDDU #1 #2002-11152  
(Shafter Lake - WSDDU Texaco - 100 bbls Sour)  
UL-F Section 31 T24S R38E



EOTT Energy Pipeline  
WSDDU #1 #2002-11152  
(Shafter Lake - WSDDU Texaco - 100 bbls Sour)  
UL-F Section 31 T24S R38E

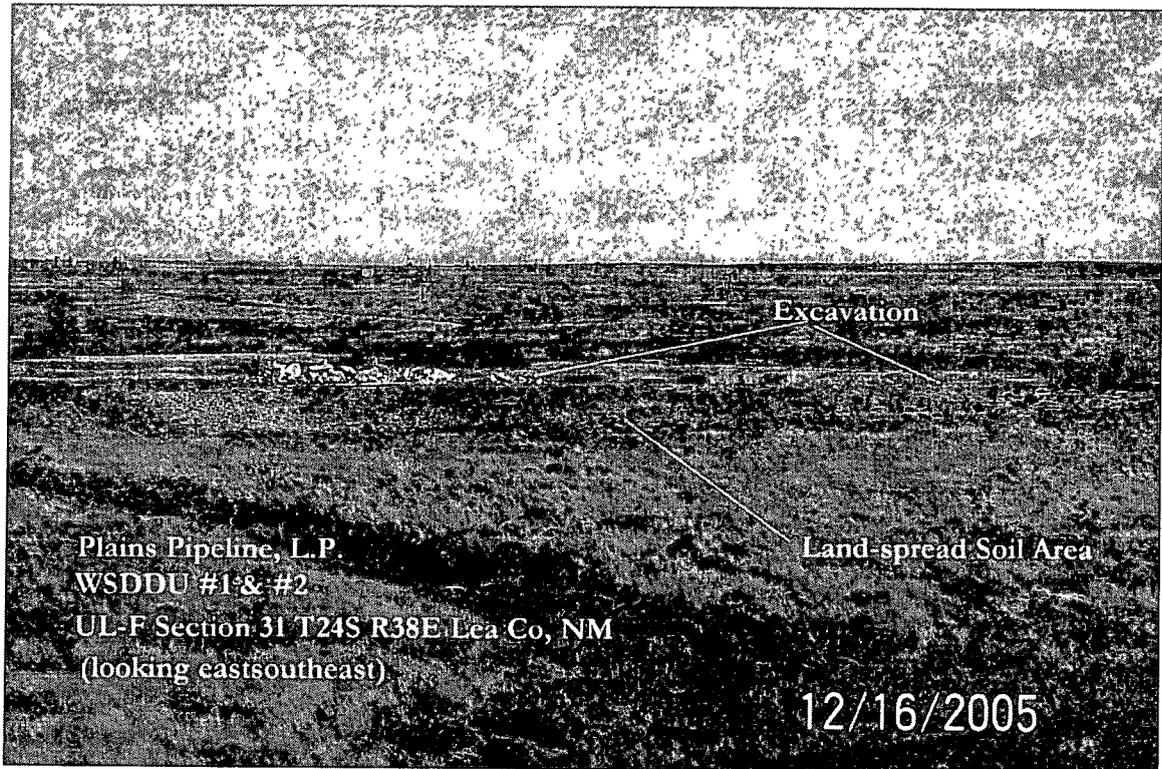
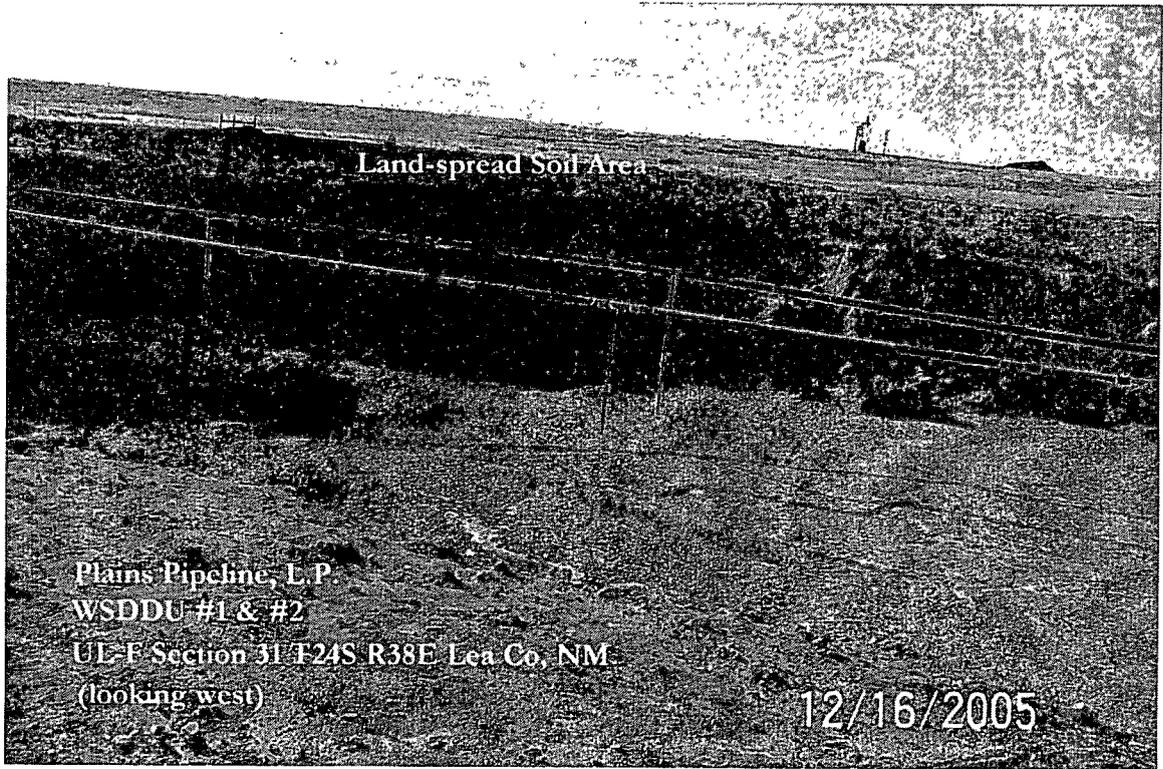
10/18/2001 4:58pm



WSSDU #2 Release



WSSDU #2 Release

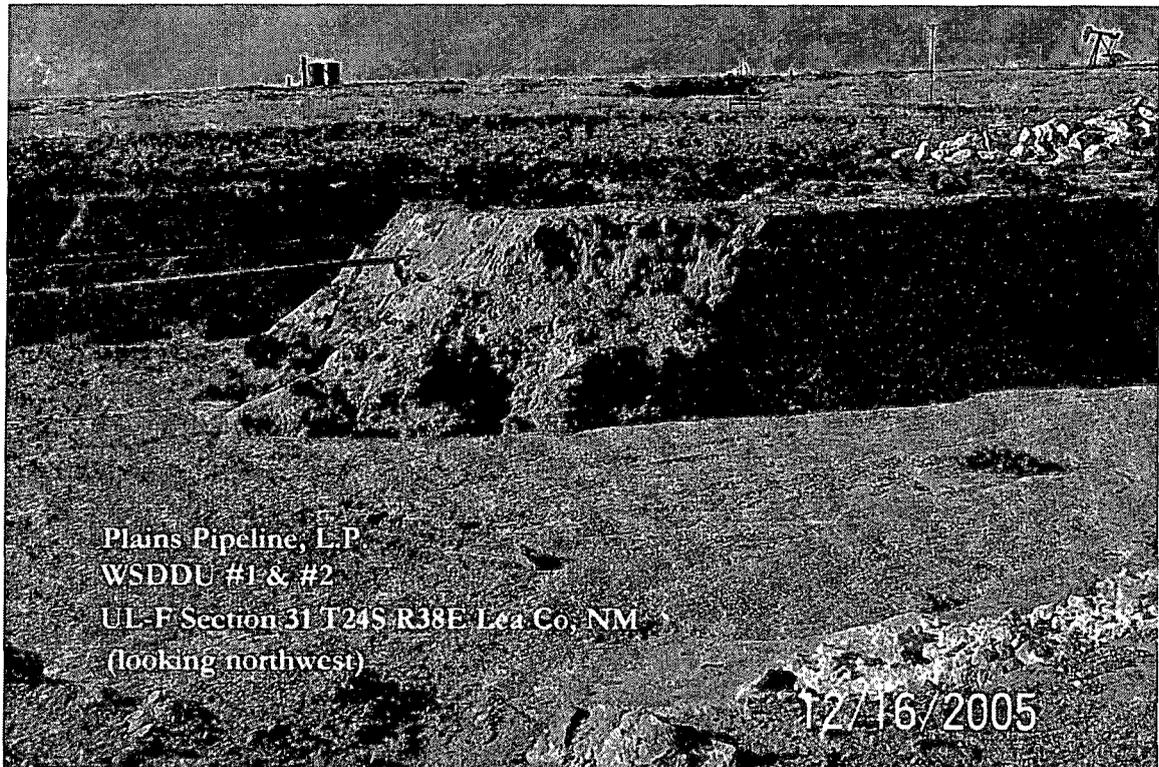
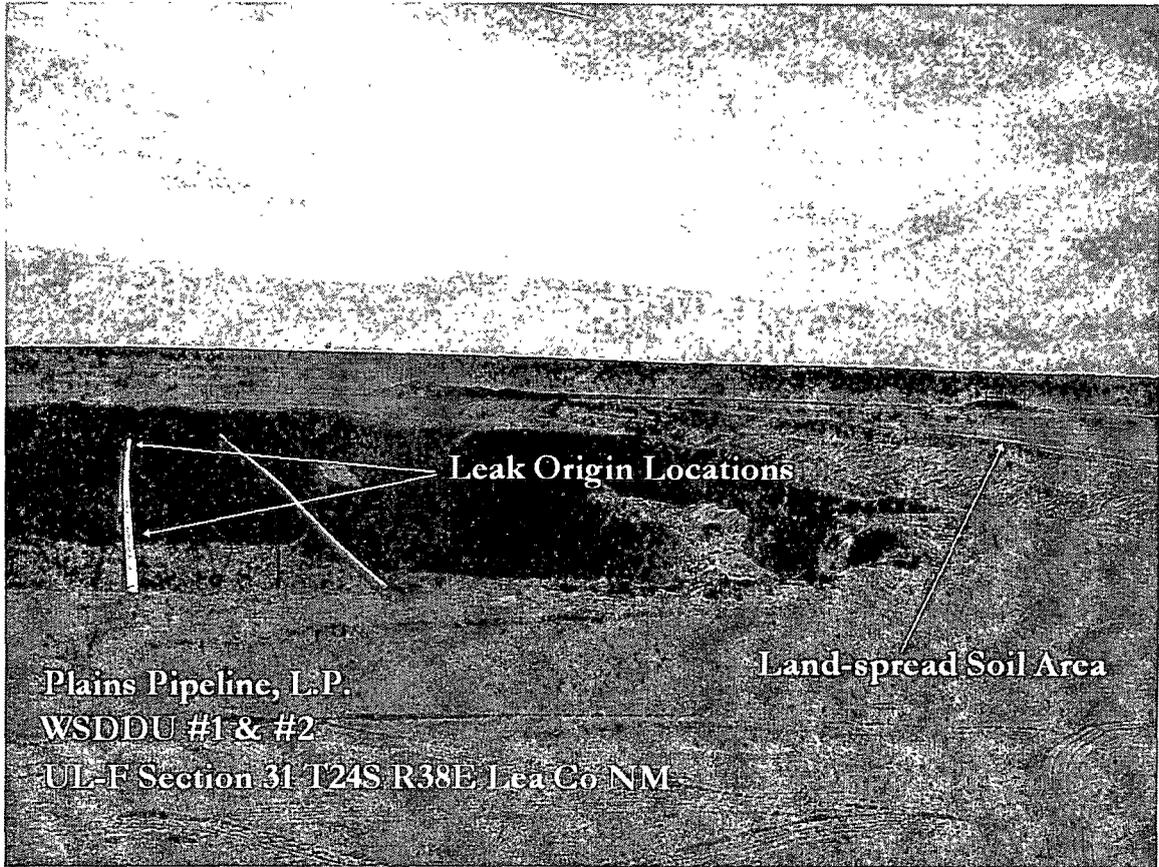


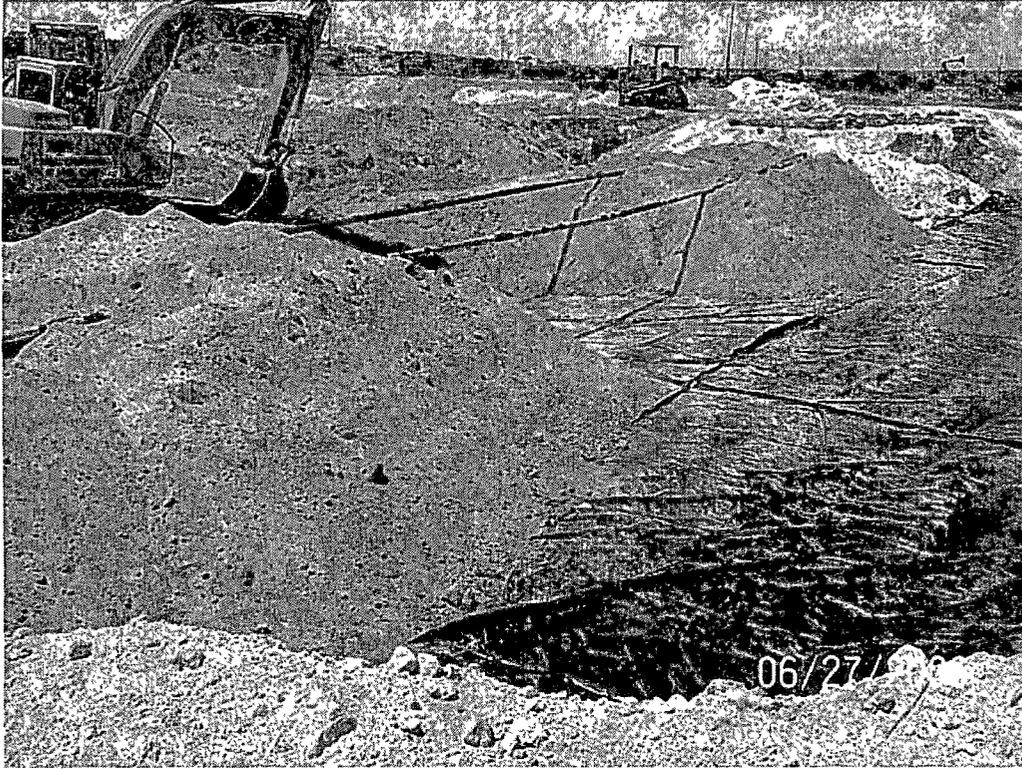


**Photo #9:** Installation of Monitor Wells.

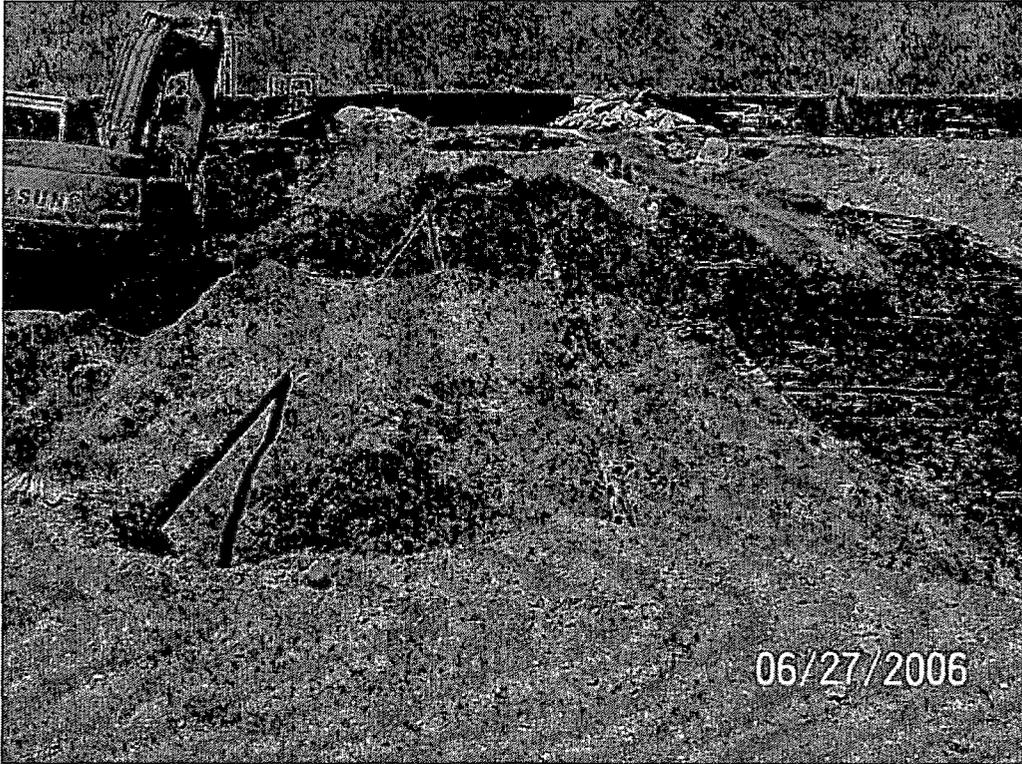


**Photo #10:** Installation of liner.

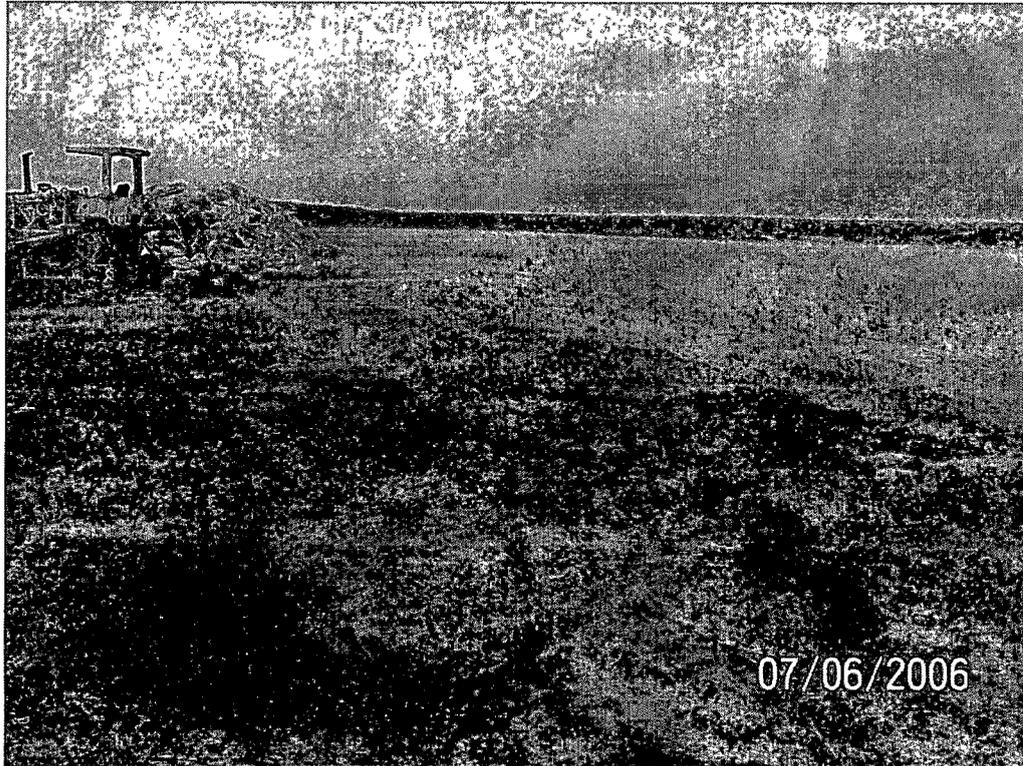




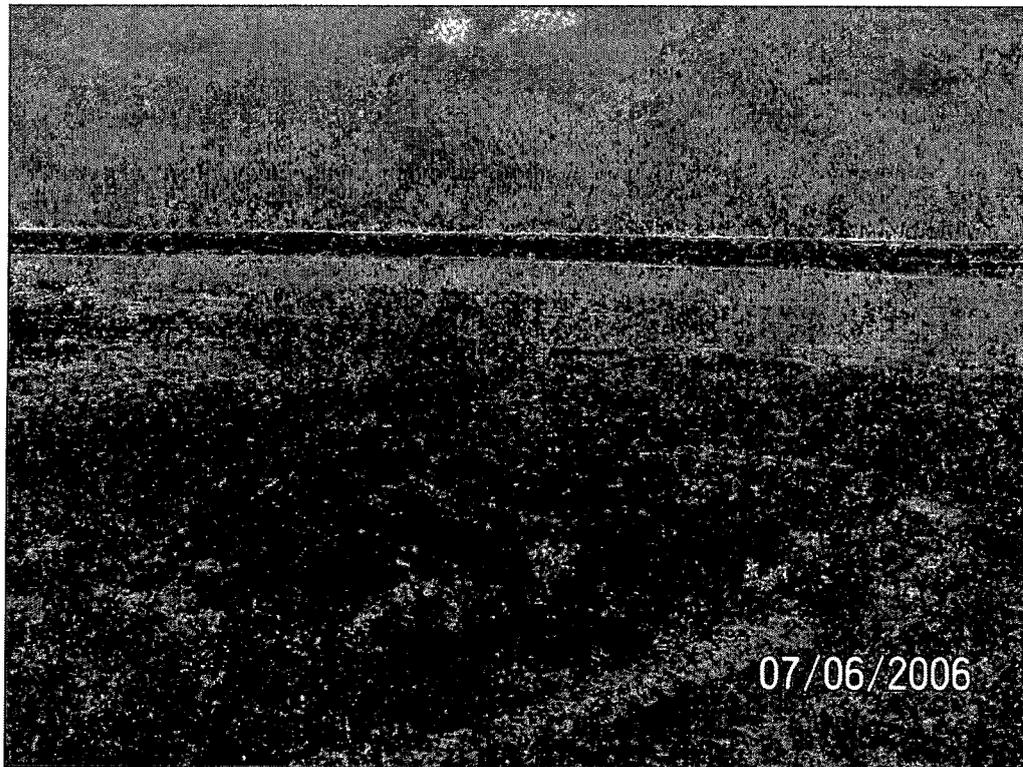
**Photo #11:** Backfilling of excavation with attenuated soil from land-spread.



**Photo #12:** Backfilling of excavation with attenuated soil from land-spread.



**Photo #13:** Remediated site, contoured, ready for seeding.



**Photo #14:** Remediated site, contoured, ready for seeding.

**APPENDIX II**

**LABORATORY ANALYTICAL REPORTS**  
**AND**  
**CHAIN-OF-CUSTODY FORMS**

*Delineation analytical data included on attached CD*



3512 Montopolis Drive, Austin, TX 78744 &  
 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
 (512) 385-5886 • FAX (512) 385-7411

**Client:** Environmental Plus, Inc.  
**Attn:** Pat McCasland  
**Address:** 2100 Ave. O  
 Eunice NM 88231  
**Phone:** (505) 394-3481 **FAX:** (505) 394-2601

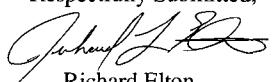
**Report#/Lab ID#:** 178913 **Report Date:** 04/13/06  
**Project ID:** 2001-11152  
**Sample Name:** MW-1  
**Sample Matrix:** water  
**Date Received:** 04/11/2006 **Time:** 10:15  
**Date Sampled:** 04/04/2006 **Time:** 15:15

**REPORT OF ANALYSIS**

**QUALITY ASSURANCE DATA 1**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		04/12/06	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/06	8260b	---	4.2	108.9	105.4	105.9
Ethylbenzene	<1	µg/L	1	<1	04/12/06	8260b	---	2.4	108.5	101.3	106.6
m,p-Xylenes	<2	µg/L	2	<2	04/12/06	8260b	---	2.1	103.6	95.9	101.2
o-Xylene	<1	µg/L	1	<1	04/12/06	8260b	---	2.7	116.5	107.2	113.6
Toluene	<1	µg/L	1	<1	04/12/06	8260b	---	4.1	109.5	105.8	108.6

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,  
  
 Richard Elton

1. Quality assurance data is for the sample batch which included this sample 2 Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference



3512 Montopolis Drive, Austin, TX 78744 &  
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<b>Client:</b> Environmental Plus, Inc. <b>Attn:</b> Pat McCasland	<b>Project ID:</b> 2001-11152 <b>Sample Name:</b> MW-1	<b>Report#/Lab ID#:</b> 178913 <b>Sample Matrix:</b> water
---	---	---

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	93.8	70-130	04/12/06	---
Toluene-d8	8260b	112	80-125	04/12/06	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits

**Client:** Environmental Plus, Inc.  
**Attn:** Pat McCasland  
**Address:** 2100 Ave. O  
Eunice NM 88231  
**Phone:** (505) 394-3481 **FAX:** (505) 394-2601

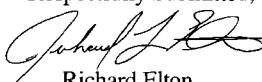
**Report#/Lab ID#:** 178914 **Report Date:** 04/13/06  
**Project ID:** 2001-11152  
**Sample Name:** MW-2  
**Sample Matrix:** water  
**Date Received:** 04/11/2006 **Time:** 10:15  
**Date Sampled:** 04/04/2006 **Time:** 16:15

## REPORT OF ANALYSIS

## QUALITY ASSURANCE DATA <sup>1</sup>

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		04/12/06	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/06	8260b	---	4.2	108.9	105.4	105.9
Ethylbenzene	<1	µg/L	1	<1	04/12/06	8260b	---	2.4	108.5	101.3	106.6
m,p-Xylenes	<2	µg/L	2	<2	04/12/06	8260b	---	2.1	103.6	95.9	101.2
o-Xylene	<1	µg/L	1	<1	04/12/06	8260b	---	2.7	116.5	107.2	113.6
Toluene	<1	µg/L	1	<1	04/12/06	8260b	---	4.1	109.5	105.8	108.6

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc.

Respectfully Submitted,  
  
Richard Elton

<sup>1</sup> Quality assurance data is for the sample batch which included this sample. <sup>2</sup> Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. <sup>3</sup> Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. <sup>4</sup> Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. <sup>5</sup> Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. <sup>6</sup> Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. <sup>7</sup> Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S & S1 = MS and/or MSD recovery exceed advisory limits. S2 = Post digestion spike (PDS) recovery exceeds advisory limit. S3 = MS and/or MSD and PDS recoveries exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference.



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 2209 N. Padre Island Dr., Corpus Christi, TX 78408  
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**Client:** Environmental Plus, Inc.  
**Attn:** Pat McCasland  
**Address:** 2100 Ave. O  
 Eunice NM 88231  
**Phone:** (505) 394-3481 **FAX:** (505) 394-2601

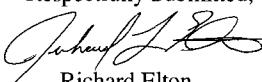
**Report#/Lab ID#:** 178915 **Report Date:** 04/13/06  
**Project ID:** 2001-11152  
**Sample Name:** MW-3  
**Sample Matrix:** water  
**Date Received:** 04/11/2006 **Time:** 10:15  
**Date Sampled:** 04/04/2006 **Time:** 14:35

**REPORT OF ANALYSIS**

**QUALITY ASSURANCE DATA <sup>1</sup>**

Parameter	Result	Units	RQL <sup>5</sup>	Blank	Date	Method <sup>6</sup>	Data Qual. <sup>7</sup>	Prec. <sup>2</sup>	Recov. <sup>3</sup>	CCV <sup>4</sup>	LCS <sup>4</sup>
Volatile organics-8260b/BTEX	---		---		04/12/06	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	04/12/06	8260b	---	4.2	108.9	105.4	105.9
Ethylbenzene	<1	µg/L	1	<1	04/12/06	8260b	---	2.4	108.5	101.3	106.6
m,p-Xylenes	<2	µg/L	2	<2	04/12/06	8260b	---	2.1	103.6	95.9	101.2
o-Xylene	<1	µg/L	1	<1	04/12/06	8260b	---	2.7	116.5	107.2	113.6
Toluene	<1	µg/L	1	<1	04/12/06	8260b	---	4.1	109.5	105.8	108.6

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Respectfully Submitted,  
  
 Richard Elton

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than (" $<$ ") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S & S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits P =Precision higher than advisory limit. M =Matrix interference.



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<b>Client:</b> Environmental Plus, Inc. <b>Attn:</b> Pat McCasland	<b>Project ID:</b> 2001-11152 <b>Sample Name:</b> MW-3	<b>Report#/Lab ID#:</b> 178915 <b>Sample Matrix:</b> water
---	---	---

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
I,2-Dichloroethane-d4	8260b	105	70-130	04/12/06	---
Toluene-d8	8260b	108	80-125	04/12/06	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits



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**Client:** Environmental Plus, Inc.  
**Attn:** Pat McCasland

**Project ID:** 2001-11152  
**Sample Name:** MW-2

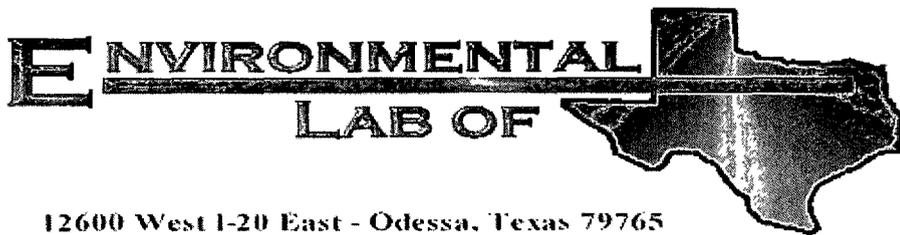
**Report#/Lab ID#:** 178914  
**Sample Matrix:** water

**REPORT OF SURROGATE RECOVERY**

Surrogate Compound	Method	Recovery	Recovery Limits	Date Analyze	Data Qualifiers
1,2-Dichloroethane-d4	8260b	100	70-130	04/12/06	---
Toluene-d8	8260b	109	80-125	04/12/06	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.





12600 West 1-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: WSDDU Texaco

Project Number: 2001-11152

Location: UL-F, Sec. 31, TS, R 37 E

Lab Order Number: 6F27008

Report Date: 06/29/06

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1301 S. County Road 1150  
Midland TX, 79706-4476

Project. WSDDU Texaco  
Project Number 2001-11152  
Project Manager. Camille Reynolds

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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SSW1	6F27008-01	Soil	06/21/06 11.25	06/27/06 10.30
SSW2	6F27008-02	Soil	06/21/06 08 00	06/27/06 10 30
SSW3	6F27008-03	Soil	06/21/06 14 30	06/27/06 10 30

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Project WSDDU Texaco  
 Project Number. 2001-11152  
 Project Manager Camille Reynolds

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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SSW1 (6F27008-01) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EF62813	06/28/06	06/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate a,a,a-Trifluorotoluene</i>		111 %	80-120		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		105 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62702	06/27/06	06/28/06	EPA 8015M	
<b>Carbon Ranges C12-C28</b>	<b>J [6.65]</b>	10.0	"	"	"	"	"	"	<b>J</b>
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		77.6 %	70-130		"	"	"	"	
<i>Surrogate 1-Chlorooctadecane</i>		73.0 %	70-130		"	"	"	"	
<b>SSW2 (6F27008-02) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EF62813	06/28/06	06/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate a,a,a-Trifluorotoluene</i>		91.0 %	80-120		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		95.2 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62702	06/27/06	06/28/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		80.6 %	70-130		"	"	"	"	
<i>Surrogate 1-Chlorooctadecane</i>		77.0 %	70-130		"	"	"	"	
<b>SSW3 (6F27008-03) Soil</b>									
Benzene	ND	0.0250	mg/kg dry	25	EF62813	06/28/06	06/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate a,a,a-Trifluorotoluene</i>		101 %	80-120		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		104 %	80-120		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EF62702	06/27/06	06/27/06	EPA 8015M	

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas*

Plains All American EH & S  
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Midland TX, 79706-4476

Project: WSDDU Texaco  
Project Number: 2001-11152  
Project Manager: Camille Reynolds

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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SSW3 (6F27008-03) Soil</b>									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EF62702	06/27/06	06/27/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	"
Total Hydrocarbon nC6-nC35	ND	10.0	"	"	"	"	"	"	"
<i>Surrogate 1-Chlorooctane</i>		81.6 %	70-130	"	"	"	"	"	"
<i>Surrogate 1-Chlorooctadecane</i>		79.6 %	70-130	"	"	"	"	"	"

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**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SSW1 (6F27008-01) Soil</b>									
% Moisture	6.3	0.1	%	1	EF62801	06/27/06	06/28/06	% calculation	
<b>SSW2 (6F27008-02) Soil</b>									
% Moisture	22.5	0.1	%	1	EF62801	06/27/06	06/28/06	% calculation	
<b>SSW3 (6F27008-03) Soil</b>									
% Moisture	3.9	0.1	%	1	EF62801	06/27/06	06/28/06	% calculation	

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Project. WSDDU Texaco  
 Project Number 2001-11152  
 Project Manager. Camille Reynolds

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch EF62702 - Solvent Extraction (GC)**

<b>Blank (EF62702-BLK1)</b>		Prepared & Analyzed 06/27/06								
Carbon Ranges C6-C12	ND	100	mg/kg wet							
Carbon Ranges C12-C28	ND	100	"							
Carbon Ranges C28-C35	ND	100	"							
Total Hydrocarbon nC6-nC35	ND	100	"							
Surrogate 1-Chlorooctane	38.8		mg/kg	50.0		77.6	70-130			
Surrogate 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

<b>LCS (EF62702-BS1)</b>		Prepared & Analyzed 06/27/06								
Carbon Ranges C6-C12	495	100	mg/kg wet	500		99.0	75-125			
Carbon Ranges C12-C28	483	100	"	500		96.6	75-125			
Carbon Ranges C28-C35	ND	100	"	0.00			75-125			
Total Hydrocarbon nC6-nC35	978	100	"	1000		97.8	75-125			
Surrogate 1-Chlorooctane	44.8		mg/kg	50.0		89.6	70-130			
Surrogate 1-Chlorooctadecane	35.6		"	50.0		71.2	70-130			

<b>Calibration Check (EF62702-CCV1)</b>		Prepared & Analyzed 06/27/06								
Carbon Ranges C6-C12	224		mg/kg	250		89.6	80-120			
Carbon Ranges C12-C28	272		"	250		109	80-120			
Total Hydrocarbon nC6-nC35	496		"	500		99.2	80-120			
Surrogate 1-Chlorooctane	49.3		"	50.0		98.6	70-130			
Surrogate 1-Chlorooctadecane	44.6		"	50.0		89.2	70-130			

<b>Matrix Spike (EF62702-MS1)</b>		Source: 6F27008-01		Prepared & Analyzed 06/27/06						
Carbon Ranges C6-C12	525	100	mg/kg dry	534	ND	98.3	75-125			
Carbon Ranges C12-C28	513	100	"	534	6.65	94.8	75-125			
Carbon Ranges C28-C35	ND	100	"	0.00	ND		75-125			
Total Hydrocarbon nC6-nC35	1040	100	"	1070	ND	97.2	75-125			
Surrogate 1-Chlorooctane	44.1		mg/kg	50.0		88.2	70-130			
Surrogate 1-Chlorooctadecane	36.9		"	50.0		73.8	70-130			

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 Project Number 2001-11152  
 Project Manager Camille Reynolds

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EF62702 - Solvent Extraction (GC)**

<b>Matrix Spike Dup (EF62702-MSD1)</b>	<b>Source: 6F27008-01</b>		<b>Prepared &amp; Analyzed 06/27/06</b>							
Carbon Ranges C6-C12	506	10.0	mg/kg dry	534	ND	94.8	75-125	3.69	20	
Carbon Ranges C12-C28	497	10.0	"	534	6.65	91.8	75-125	3.17	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbon nC6-nC35	1000	10.0	"	1070	ND	93.5	75-125	3.92	20	
Surrogate 1-Chlorooctane	42.6		mg/kg	50.0		85.2	70-130			
Surrogate 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

**Batch EF62813 - EPA 5030C (GC)**

<b>Blank (EF62813-BLK1)</b>	<b>Prepared &amp; Analyzed: 06/28/06</b>									
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate a,a,a-Trifluorotoluene	41.8		ug/kg	40.0		104	80-120			
Surrogate 4-Bromofluorobenzene	38.8		"	40.0		97.0	80-120			

<b>LCS (EF62813-BS1)</b>	<b>Prepared &amp; Analyzed 06/28/06</b>									
Benzene	1.44	0.0250	mg/kg wet	1.25		115	80-120			
Toluene	1.40	0.0250	"	1.25		112	80-120			
Ethylbenzene	1.25	0.0250	"	1.25		100	80-120			
Xylene (p/m)	2.83	0.0250	"	2.50		113	80-120			
Xylene (o)	1.36	0.0250	"	1.25		109	80-120			
Surrogate a,a,a-Trifluorotoluene	41.0		ug/kg	40.0		102	80-120			
Surrogate 4-Bromofluorobenzene	38.9		"	40.0		97.2	80-120			

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 Project Number 2001-11152  
 Project Manager. Camille Reynolds

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch EF62813 - EPA 5030C (GC)**

**Calibration Check (EF62813-CCV1)**

Prepared & Analyzed 06/28/06

Benzene	54.7		ug/kg	50.0		109	80-120			
Toluene	57.8		"	50.0		116	80-120			
Ethylbenzene	57.2		"	50.0		114	80-120			
Xylene (p/m)	111		"	100		111	80-120			
Xylene (o)	54.4		"	50.0		109	80-120			
Surrogate a,a,a-Trifluorotoluene	40.4		"	40.0		101	80-120			
Surrogate 4-Bromofluorobenzene	37.3		"	40.0		93.2	80-120			

**Matrix Spike (EF62813-MS1)**

Source: 6F27008-01

Prepared & Analyzed 06/28/06

Benzene	1.37	0.0250	mg/kg dry	1.33	ND	103	80-120			
Toluene	1.49	0.0250	"	1.33	ND	112	80-120			
Ethylbenzene	1.40	0.0250	"	1.33	ND	105	80-120			
Xylene (p/m)	3.02	0.0250	"	2.67	ND	113	80-120			
Xylene (o)	1.48	0.0250	"	1.33	ND	111	80-120			
Surrogate a,a,a-Trifluorotoluene	35.6		ug/kg	40.0		89.0	80-120			
Surrogate 4-Bromofluorobenzene	41.6		"	40.0		104	80-120			

**Matrix Spike Dup (EF62813-MSD1)**

Source: 6F27008-01

Prepared & Analyzed 06/28/06

Benzene	1.43	0.0250	mg/kg dry	1.33	ND	108	80-120	4.74	20	
Toluene	1.55	0.0250	"	1.33	ND	117	80-120	4.37	20	
Ethylbenzene	1.47	0.0250	"	1.33	ND	111	80-120	5.56	20	
Xylene (p/m)	3.15	0.0250	"	2.67	ND	118	80-120	4.33	20	
Xylene (o)	1.55	0.0250	"	1.33	ND	117	80-120	5.26	20	
Surrogate a,a,a-Trifluorotoluene	42.0		ug/kg	40.0		105	80-120			
Surrogate 4-Bromofluorobenzene	43.5		"	40.0		109	80-120			

Environmental Lab of Texas

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Page 7 of 9

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1301 S County Road 1150  
Midland TX, 79706-4476

Project WSDDU Texaco  
Project Number. 2001-11152  
Project Manager. Camille Reynolds

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch EF62801 - General Preparation (Prep)**

**Duplicate (EF62801-DUP1)**

**Source: 6F26010-01**

Prepared. 06/27/06 Analyzed: 06/28/06

% Solids	97.5		%		97.8			0.307	20	
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Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas*

Page 8 of 9

Plains All American EH & S  
1301 S. County Road 1150  
Midland TX, 79706-4476

Project WSDDU Texaco  
Project Number 2001-11152  
Project Manager. Camille Reynolds

Fax (432) 687-4914

### Notes and Definitions

J Detected but below the Reporting Limit, therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By: Raland K Tuttle Date: 6/29/2006

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

# Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231  
 (505) 394-3481 FAX: (505) 394-2601

P.O. Box 1558, Eunice, NM 88231

## Chain of Custody Form

LAB: ELT

Company Name		Environmental Plus, Inc.		Bill To				ANALYSIS REQUEST									
EPI Project Manager		Pat McCasland		 <p>Attn: ENV Accounts Payable                  PO Box 4648,                  Houston, TX 77210-4648</p>													
Mailing Address		P.O. BOX 1558															
City, State, Zip		Eunice New Mexico 88231															
EPI Phone#/Fax#		505-394-3481 / 505-394-2601															
Client Company		Plains Pipeline															
Facility Name		WSDDU #1															
Location		UL-F, Sec. 31, TS, R 37 E															
Project Reference		2001-11152															
EPI Sampler Name		Jacob Melancon															

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.		SAMPLING		BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO <sub>4</sub> <sup>2-</sup> )	pH	TCLP	OTHER >>>	PAH	
				GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME									
<i>WFM</i>	1 SSW1	G	1			X					X	21-Jun-06	11:25	X	X								
<i>SL</i>	2 SSW2	G	1			X					X	21-Jun-06	8:00	X	X								
<i>SS</i>	3 SSW3	G	1			X					X	21-Jun-06	14:30	X	X								
	4																						
	5																						
	6																						
	7																						
	8																						
	9																						
	10																						

Sampler Relinquished:		Date:	6/21/05	Received By:	E-mail results to: iolness@envplus.net and cjreynolds@paalp.com	
<i>Jacob Melancon</i>		Time:	7:49	<i>Carol Weiss</i>	REMARKS:	
Relinquished by:		Date:	6/21/06	Received By: (lab staff)		
<i>Carol Weiss</i>		Time:	10:30	<i>Cerie Kelly</i>		
Delivered by:		Sample Cool & Intact		Checked By:	2.5 w/ labels - no seals 4oz glass	
		<input checked="" type="radio"/> Yes <input type="radio"/> No		<i>OK</i>		

**Environmental Lab of Texas**  
**Variance / Corrective Action Report – Sample Log-In**

Client: Plains  
 Date/Time: 10/27/06 10:30  
 Order #: LF27008  
 Initials: ck

**Sample Receipt Checklist**

	Yes	No	
Temperature of container/cooler?			215 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<del>Not present</del>
Custody Seals intact on sample bottles?	Yes	No	<del>Not present</del>
Chain of custody present?	<input checked="" type="checkbox"/>	No	
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No	
Container labels legible and intact?	<input checked="" type="checkbox"/>	No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No	
Samples properly preserved?	<input checked="" type="checkbox"/>	No	
Sample bottles intact?	<input checked="" type="checkbox"/>	No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable

Other observations:

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**Variance Documentation:**

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

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Corrective Action Taken:

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**APPENDIX III  
SITE INFORMATION AND METRICS FORM  
AND  
NMOCD FORM C-141**



**PLAINS**  
ALL AMERICAN

Site Information and Metrics

Incident Date:  
10-18-01 @ 10:00AM

NMOCD Notified:  
10/18/2001 Larry Johnson  
by Frank Hernandez

SITE: <b>WSDDU #1 and #2</b>		Assigned Site Reference #: <b>2001-11152 and 2001-11219</b>	
Company: Plains Pipeline, L.P.			
Street Address: PO Box 1660		Notified Date/Time:	
Mailing Address: 5805 East Highway 80		Notified by: Frank Hernandez	
City, State, Zip: Midland, Texas 79702		Person Notified:	
Representative: Daniel Bryant		NRC Report# :	
Representative Telephone: 505.396.3341 (email dmbryant@paalp.com)			
Telephone:			
Fluid volume released (bbls): #1-100 bbls #2-70 bbls		Recovered (bbls): #1-0 bbls #2-45 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls. Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: WSDDU #1 and #2			
Source of contamination: 4" Steel Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: George Willis			
LSP Dimensions 160-ft x 90-ft			
LSP Area: ~7,414 sq ft			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32° 10' 32.87"N			
Longitude: 103° 06' 05.4"W			
Elevation above mean sea level: 3,102 'amsl			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or ¼: SE¼ of the NW¼ Unit Letter: F			
Location- Section: 31			
Location- Township: T24S			
Location- Range: R38E			
Surface water body within 1000 ' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to ground water (DG) ~75-80 feet bgs			
Depth of contamination (DC) - ~50 -feet bgs			
Depth to ground water (DG - DC = DtGW) - ~25 to 30-feet bgs			
<b>1. Ground Water</b>		<b>2. Wellhead Protection Area</b>	
If Depth to GW <50 feet: <b>20 points</b>		If <1000' from water source, or; <200' from private domestic water source: <b>20 points</b>	
If Depth to GW 50 to 99 feet: <b>10 points</b>		If >1000' from water source, or; >200' from private domestic water source: <b>0 points</b>	
If Depth to GW >100 feet: <b>0 points</b>			
Ground water Score = 20		Wellhead Protection Area Score = 0	
Site Rank (1+2+3) = 20 + 0 + 0 = 20			
Total Site Ranking Score and Acceptable Concentrations			
Site Ranking	>19 (10 to 60-foot bgs)	10-19 (surface to 10-foot bgs)	0-9
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm
<sup>1</sup> 100 ppm field VOC headspace measurement may be substituted for lab analysis			

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, 2004

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: <b>Plains Pipeline, L.P.</b>	Contact: <b>Daniel Bryant</b>
Address: <b>PO Box 1660, 5805 East Highway 80 Midland, Texas 79702</b>	Telephone No. <b>505.396.3341</b>
Facility Name <b>WSDDU #1 and #2 #2001-11152 and 2001-11219</b>	Facility Type <b>4" Steel Pipeline</b>
Surface Owner: <b>George Willis</b>	Mineral Owner <b>George Willis</b>

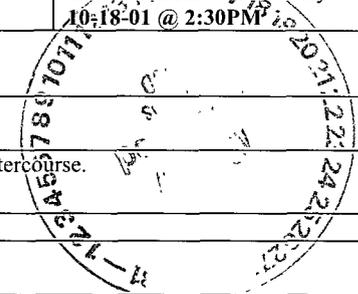
**LOCATION OF RELEASE**

Unit Letter <b>F</b>	Section <b>31</b>	Township <b>T24S</b>	Range <b>R38E</b>	Feet from the Line	North/South Line	Feet from the Line	East/West Line	County: <b>Lea</b>
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Latitude: 32° 10' 32.87"N      Longitude: 103° 06' 05.4"W

**NATURE OF RELEASE**

Type of Release <b>Crude oil</b>	Volume of Release <b>#1-100 bbls #2-70 bbls</b>	Volume Recovered <b>#1-0 bbls #2-45 bbls</b>
Source of Release <b>4" Steel Pipeline</b>	Date and Hour of Occurrence <b>10-18-01 @ 10:00AM</b>	Date and Hour of Discovery <b>10-18-01 @ 2:30PM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Larry Johnson</b>	
By Whom? <b>Frank Hernandez</b>	Date and Hour <b>10/18/2001</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	



Depth to groundwater? ~75-80 ft bgs  
If a Watercourse was Impacted, Describe Fully.\*  
**NA**

Describe Cause of Problem and Remedial Action Taken.\*  
**4" Steel Pipeline; The release was caused by internal corrosion of the steel pipeline. This section of pipeline was replaced with new pipe and placed back in service.**

Describe Area Affected and Cleanup Action Taken.\*  
**7,414 sqft 160-ft x 90-ft: Landfarm accessible soils and isolate the remainder with an impermeable and impervious engineered barrier. Remedial Goals: TPH 8015m = 100 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:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Daniel Bryant</b>	 <b>ENVIRONMENTAL ENGINEER</b>	
E-mail Address: <b>dmbryant@paalp.com</b>	Approval Date: <b>11-28-07</b>	Expiration Date: <b>—</b>
Title: <b>Environmental Specialist</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>11/28/07</b> Phone: <b>505.396.3341</b>	—	<b>RP# 1163</b>

Attach Additional Sheets If Necessary