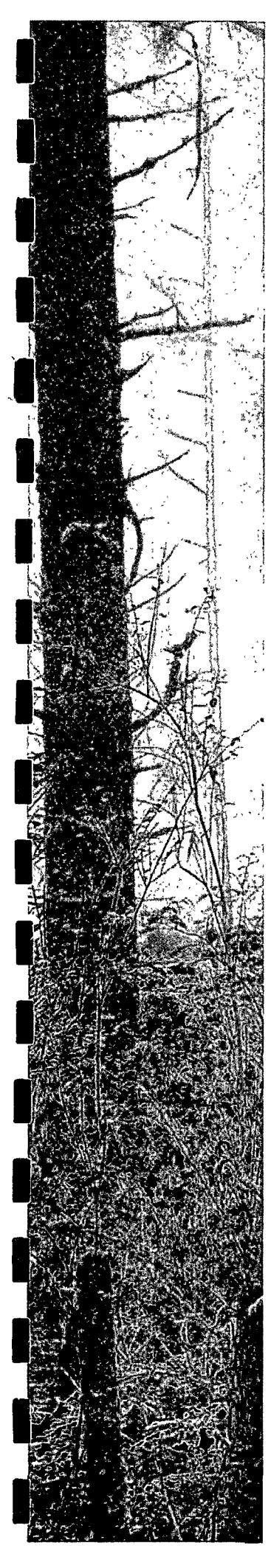

DATA EVALUATION AND CLOSURE REPORT

TRACT 5 – 4" GATHERING

Latitude 32° 27' 26.48" N; Longitude 103 ° 09' 32.99" W

Lea County, New Mexico

PLAINS SRS NO.: 2006-378
NMOCD 1RP# 1124

PREPARED FOR

PLAINS
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Project No. 207167.00

FEBRUARY 2008

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DISCLAIMER

Premier has examined and relied upon the file information provided by Plains and Environmental Plus, Inc. (EPI). Premier has not conducted an independent examination of the information contained in the Plains files; furthermore, we assume the genuineness of the documents reviewed and that the information provided in these documents to be true and accurate. Premier has prepared this report using the level of care and professionalism in the industry for similar projects under similar conditions. Premier will not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this report was prepared. Premier believes the conclusions stated herein are factual, but no guarantee is made or implied.

Executive Summary

On November 7, 2006, a release of approximately 10 barrels of crude oil occurred from a 4" steel pipeline at Tract 5 - 4" Gathering Site, SRS No. 2006-378 (Tract 5). Plains Pipeline, L.P. (Plains) currently owns the pipeline. The site is located in unit letter M, SW¼ of the SW¼, Section 22 Township 21S, Range 37E, or more specifically at latitude 32° 27' 26.48" N and longitude 103 ° 09' 32.99" W in Lea County, New Mexico (Figure 1, Appendix A). Mr. Daniel Bryant reported the release, apparently caused by external corrosion, to the New Mexico Oil Conservation Division (NMOCD) on November 8, 2006 at about 4:30 p.m., according to the initial C-141 NMOCD release reporting form. The pipeline was promptly repaired.

On November 20, 2006, an excavation 60 feet long, 40 feet and 20 feet deep was completed to remove the majority of the affected soil. The extent of the excavation is limited by the presence of two water pipelines, one that run along the west side of the excavation and the second along the southern side of the excavation. A high pressure gas pipeline is also located in close proximity to the eastern perimeter of the excavation.

On December 7, 2006, Environmental Plus, Inc. (EPI) advanced a single soil boring in the bottom of the excavation below the leak origin to achieve vertical delineation of the crude oil affected soil. Five soil samples were collected between 22 and 47 feet below ground surface (bgs). The analytical data indicated that the concentrations of the contaminants of concern (COCs) in the samples collected between 27 and 47 feet bgs, were all below regulatory target concentrations.

On June 28, 2007 five soil samples were collected by Premier Environmental Services, Inc. (Premier) to determine the concentration of residual hydrocarbons in the side-walls and base of the excavation. The walls and base of the excavation were screened with a photo-ionization detector and the samples with the highest measured organic vapor content were submitted for laboratory analyses. The analytical data for the soil sample taken from the base of the excavation and the soil sample from the south wall displayed TPH concentrations above NMOCD cleanup goals. On September 4, 2007, additional excavation was completed in areas where TPH concentrations were above the regulatory limit in the side walls of the excavation and follow-up confirmation samples were collected for laboratory analyses. The laboratory data for the sidewall soil samples indicated that the sidewalls of the excavation were excavated to below regulatory limits.

In November 2007, a Data Evaluation and Closure Proposal was submitted to the NMOCD to address residual soil contamination in the base of the excavation at the site. Objectives of this risk-based soil remediation plan were to isolate and control COCs in the soil and to prevent impact to groundwater. The soil remediation plan was approved by NMOCD in a letter dated December 2007. This report details the excavation activities, impermeable liner installation and other activities completed to meet the objectives identified in the soil remediation plan. Upon completion of liner installation, the site was backfilled and returned to original grade.

1.0 Introduction and Site History

Premier was retained by Plains Pipeline, L.P. (Plains) to review existing site data and prepare Data Evaluation and Closure Proposal associated with Tract 5 – 4" Gathering Sites (SRS No. 2006-0378).

The leak that occurred at the Texaco Tract 5 site (Tract 5) on November 7, 2006 (SRS No. 2006-0378) was apparently caused by external corrosion. The site is located in unit letter M, SW¼ of the SW¼, Section 22 Township 21S, Range 37E, or more specifically at latitude 32° 27' 26.48" N and longitude 103 ° 09' 32.99" W in Lea County, New Mexico (Figure 1, Appendix A). Mr. Daniel Bryant reported the release to the New Mexico Oil Conservation Division (NMOCD) on November 8, 2006 at about 4:30 p.m. The initial NMOCD C-141 form identified remediation standards, and outlined an initial plan to remediate the site. A copy of the C-141 is found in Appendix E.

Initial excavation activities commenced on November 20, 2006 and concluded on November 30, 2006. An excavation was completed to remove the majority of the affected soil. The extent of the excavation is limited by the presence of two water pipelines that run on two sides of the excavation and a high pressure gas pipeline in close proximity of the east and southeast corner of the excavation.

According to Mr. Pat McCasland with EPI, crude oil impacted soils down to a depth of 20 feet bgs were removed and taken to the Plains Lea Station Landfarm for treatment. EPI conducted organic vapor surveys of soil samples collected at 25 and 30 feet bgs from a sample trench located below the leak origin the results of which indicated hydrocarbon impact present to approximately 30 feet bgs. On December 7, 2006, EPI advanced a single soil boring in the bottom of the excavation below the leak origin, to achieve vertical delineation of the crude oil affected soil. Five soil samples were collected from 22 feet bgs to 47 feet bgs. The analytical data illustrate the concentrations of the COCs in the samples taken from 27 to 47 feet were below regulatory guidelines.

The purpose and objective of this report is to present a summary of the investigations completed, analytical data attained and the remedial activities taken to prevent vertical migration of the residual hydrocarbons, still present in the subsurface soil.

2.0 Environmental Characterization

2.1 Geological Description

In Lea County, the bedrock outcrops range from Triassic age strata rocks to Pleistocene age sediments. The Recent Age Mescalero sands cover 80% of Lea County, and are described as fine to medium-grained and reddish brown in color. Lea County lies in the Pecos Valley Section of the Great Plains Province, very near the Southern High Plains to the east. The Tertiary Age Ogallala Formation underlies all of the High Plains and mantles several ridges in Lea County.

Based on the soil report for Lea County, the site is located on Pyote soil and dune lands (PY) with 0-3 percent slopes. The soil consists of well drained fine sand to

fine sandy loam. The Site seems to be characteristic of the High Plains, with a uniform, relatively flat surface that topographically slopes very gently to the southeast.

2.2 Land Use

Land use in the area is primarily livestock rangeland and oil field activities. Several gas compressor stations are located in the vicinity of the site and several major oil and gas transmission pipelines bisect the region. The area in the immediate vicinity of the site is sparsely populated.

2.3 Ground Water

The New Mexico Office of the State Engineer database lists three water wells in Section 22, T21S R37E (Appendix D). These private use water wells appear to be greater than 200 feet from the site and are listed in Section 36. There are no municipal water wells within 1000 feet of the site, and the average depth to groundwater is approximately 50 feet bgs.

2.4 Surface Water

There are no surface water bodies within 1000 feet of the site.

3.0 Regulatory Framework

In New Mexico, the NMOCD oversees and regulates oil, gas and geothermal activities, including compliance with environmental regulations. Guidance for cleanup of crude oil releases is provided in the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases* (August 13, 1993) document. Primary contaminants, or COCs, associated with crude oil releases include total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, and total xylenes (BTEX). Guidelines for these COCs in soil are evaluated based on a site ranking system. The ranking system estimates the likelihood of exposures to the COCs and is based on the three following parameters,

- Depth to groundwater
- Wellhead protection area
- Distance to surface water body

These parameters illustrate that focus of the guidelines is to protect groundwater and surface water resources.

3.1 NMOCD Site Ranking Guidance – Initial Evaluation

The site was initially evaluated based on the information presented in the previous sections. Based on the proximity of the site to area water wells, surface water bodies, and depth to groundwater, the site has an NMOCD ranking score of **20 points,** with the soil remedial goals highlighted below in the Site Ranking Matrix.

Table 1 - Site Ranking Matrix

1. Groundwater	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or, <200' from private domestic water source: *20 points*	<200 horizontal feet: 20 points
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: 10 points
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or, >200' from private domestic water source: *0 points*	>1000 horizontal feet: 0 points
Groundwater Score:20	*Wellhead Protection Area Score: 0*	*Surface Water Score: 0*
Site Rank (1+2+3) =20+0+0=20		

Total Site Ranking Score and Initial Guidance Cleanup Concentrations

Parameter	20 or >	10	0
Benzene[1]	**10 ppm**	10 ppm	10 ppm
BTEX[1]	**50 ppm**	50 ppm	50 ppm
TPH	**100 ppm**	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

The average depth to groundwater is 50 feet bgs resulting in a groundwater ranking of 20.

4.0 Soil Investigation Results

Initial excavation activities commenced on November 20, 2006 and concluded on November 30, 2006. An excavation 60 feet long, 40 feet and 20 feet deep was completed to remove the majority of the affected soil. The extent of the initial excavation was limited by the presence of two water pipelines that run on the south and west side of the excavation and a high pressure gas pipeline in close proximity of the eastern perimeter of the excavation.

According to Mr. Pat McCasland with EPI, crude oil impacted soils down to a depth of 20 feet bgs were removed and taken to the Plains Lea Station Landfarm for treatment. Organic vapor surveys of soil samples collected at 25 and 30 feet bgs from a sample trench located below the leak origin indicated crude oil impact was present to approximately 30 feet bgs. To confirm field screening results from the trench excavation and to achieve vertical delineation of the crude oil affected soil, on December 7, 2006, a single soil boring was advanced in the bottom of the excavation below the leak origin by EPI. Five soil samples were collected from 22 feet bgs to 47 feet bgs at five foot intervals. The analytical data illustrates the concentrations of the contaminants of concern were below regulatory guidelines from 27 to 47 feet. Soil samples collected in this interval (27 to 47 feet bgs or alternatively stated from 5 feet or greater below the base of the excavation) indicate TPH and BTEX concentrations were generally below the laboratory method detection limits of 5 mg/Kg for TPH and below 0.020 mg/Kg for BTEX and benzene. Copies of the laboratory reports are presented in Appendix C.

On June 28, 2007, soil samples were collected by Premier to determine the concentration of residual hydrocarbons in the side walls and base of the excavation. The walls and base of the excavation were first screened using visual and olfactory senses and the samples with the highest staining and/or odor were submitted for laboratory analyses. The analytical data displayed TPH concentrations above NMOCD cleanup goals in the samples collected from the base of the excavation (sample BH-1) and the south wall (sample SW-1). The analytical results for these two samples are summarized in Table 3, Appendix B. The analytical data for soil sample BH-1 display concentrations of TPH (via EPA method 8015 modified) at 12,046 mg/Kg, benzene and total BETX concentrations (via EPA method 8021b) at 4.862 mg/Kg and 84.912 mg/Kg respectively. The analytical data for soil sample SW-1 display concentrations of TPH at 6,964 mg/Kg, benzene and total BETX concentrations at <0.0021 mg/Kg and 0.037 mg/Kg, respectively.

Therefore, on September 4, 2007, the southern face of the excavation was over-excavated in two locations and then screened with a field TPH analyzer to ensure removal of affected soil. A soil confirmation sample was collected from each of the two over-excavated areas and submitted for laboratory analyses. Analytical results indicated that TPH and BTEX concentrations were below the laboratory method reporting limit of 28 mg/Kg for TPH and below 0.002 mg/Kg for all BTEX constituents. These data, coupled with the field screening of the south wall with the TPH analyzer indicate that the residual contamination in the south wall has been removed. Analytical results are shown on Figure 3, Appendix A, and are summarized in Table 3, Appendix B.

The on-site soil stockpile consisting mainly of overburden and soil removed to create the slope into the excavation was sampled on September 13, 2007. Four soil samples were taken and submitted for laboratory analysis. The analytical data showed a maximum TPH concentration of 333.7 mg/Kg in soil sample SP-1. Analytical data for soil sample SP-2 displayed a TPH concentration of 56.2 mg/Kg. In soil samples SP-3 and SP-4, TPH concentrations and all sample BTEX concentrations were below the laboratory method reporting limits. Analytical results are shown on Figure 3, Appendix A, and are summarized in Table 3, Appendix B.

5.0 Remediation Activities Completed

Initial excavation activities commenced on November 20, 2006 and concluded on November 30, 2006. Excavation activities removed the majority of the affected soil. The outer extent of the excavation was limited by the presence of water pipelines and a high pressure gas pipeline that is located in close proximity to the excavation.

After side wall confirmation samples were collected and analyzed, the data showed a southern section of the side wall contained TPH concentrations above the NMOCD cleanup goal of 100 mg/kg. Therefore, on September 4, 2007, the southern face of the excavation was over-excavated and screened with a field TPH analyzer to ensure the effective removal of affected soil. Two soil confirmation samples were collected and submitted for laboratory analyses. Analytical results indicated that TPH and BTEX concentrations were below the laboratory method reporting limit of 28 mg/Kg for TPH and 0.002 mg/Kg for all the BTEX constituents, indicating that the residual contamination in

the south wall has been removed.

Excavation to address the release was completed by September 4, 2007 to a depth of approximately 20 feet bgs. Samples collected from the bottom of the excavation and from the soil boring show exceedances of the 100 mg/Kg TPH NMOCD target concentration from approximately 20 to 27 feet bgs (to be discussed in Section 7.0).

6.0 Groundwater Investigation

A groundwater investigation has not been completed for this site. The results of the soil investigation indicate that vertical migration of crude oil did not penetrate the subsurface to a significant depth below the base of the excavation, and that groundwater is not likely to be threatened by this release.

7.0 Soil Remediation

The majority of the affected soil was removed from the subsurface via the excavation activities discussed in Sections 4.0 and 5.0. Confirmation samples collected from the side walls illustrated the successful removal of the affected soil from the side wall of the excavation. The final remedial approach was to isolate the residual COC's that are located at the base of the excavation at an approximate depth of 20 to 27 feet bgs.

7.1 Isolation of COC's

The isolation of COC's was conducted in accordance with the Data Evaluation and Closure Proposal submitted to the NMOCD in November 2007, and approved in December 2007. The remedial approach was to conduct a risk-based closure by placing an impermeable liner at the base of the excavation to isolate the affected soil (approx. 20 to 27 feet bgs.) and eliminate potential vertical migration of COC's due to contact with precipitation migrating through the subsurface soil. To meet the requirements of the approved closure proposal the following was completed:

- The base of the excavation was cleared of all debris and covered with approximately 12" of sand with a central high point to create a drainage gradient. All foreign objects were removed from the sand prior to placement of the liner.

- A 20-mil, high density polyurethane impermeable liner (liner) in a continuous layer measuring 25' by 30' was installed in the base of the excavation. Excess liner was trimmed to fit the outline of the excavation (See Photographs 1 and 2 in Appendix F).

- Clean fill sand was stockpiled at the base of the ramp and pushed out incrementally to a depth of approximately 18" to prevent damage to the liner prior to backfilling with on-site material. The backfill material consisted of material generated from excavation activities including soils used in the formation of the ramp into the excavation, and clean imported soil. Approximately 686 cubic yards of backfill material was trucked in from a pit

on the Millard Deck Estate (See Photograph 3 in Appendix F).

- The base of the excavation was brought up to a depth of approximately 6 feet bgs. The new welds on the 4" steel pipeline and the exposed 10 feet of original pipeline was wrapped in wax tape and protected with a plastic wrap. A cathodic protection test lead was reinstalled to its original position on the section of 4" steel pipeline.

- The 8" high-pressure high-density polyethylene pipeline had new metallic marking tape installed, to aid in pipeline location. The 8" polyethylene pipeline was also raised in a 1 foot arc to prevent undo strain should settling occur in the soil around the pipelines. The soil under this pipeline was compacted using the backhoe and shovels (See Photograph 4 in Appendix F).

- Excavation backfilling activities continued up to a depth of 12" bgs. Clean topsoil that was imported from an off-site location was used to complete the backfilling activities and bring the excavation to grade. The site was then dressed to aid in storm water drainage and to reconstruct the natural contours of the area with a slight slope to the northeast. A mound was left in place along the west side to prevent overflow from the drainage ditch along the highway (See Photographs 5 and 6 in Appendix F).

- The fence and all other debris were removed from the site.

- The surface vegetation will be restored by reseeding in late spring or early summer of 2008.

8.0 SOIL CLOSURE

The results of the final remedial activities completed in December 2007, including the placement of an impermeable liner, and backfilling activities described in this report, illustrate that these activities meet the requirements of the NMOCD approved Data Evaluation and Closure Proposal. This report illustrates the activities completed at the Tract 5-4" Gathering Site met the risk based NMOCD soil cleanup criteria established for this site. As such, Premier recommends that Plains submit this report to the NMOCD for final regulatory approval for closure at this Site, and they request a "No Further Action Required" letter from the NMOCD.

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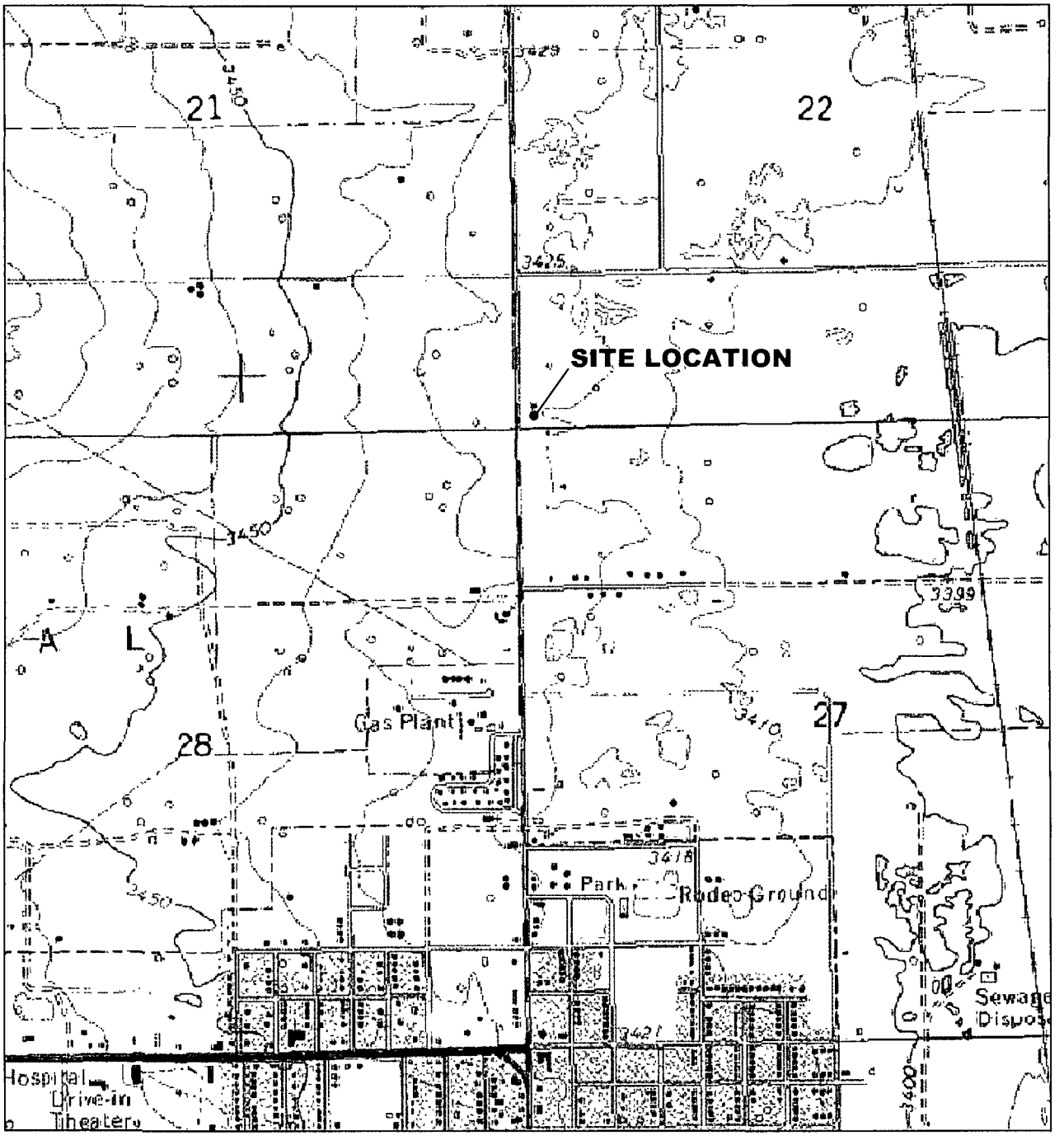
Appendix A Figures

Figure 1 – Site Location Map

Figure 2 – Site Map

Figure 3 – Map of Soil Samples with COC Concentrations in Soil



Eunice Quadrangle
32°27'26.48" N, 103°09'32.99" W

0 1/4 1/2
Distance in Miles

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ENVIRONMENTAL SERVICES, INC

Figure 1
Site Location Map
Tract 5 4" Gathering
Plains Marketing, L.P.
SRS#: 2006-378

PROJ. NO: 207167.00	CK:	DATE: 10/07

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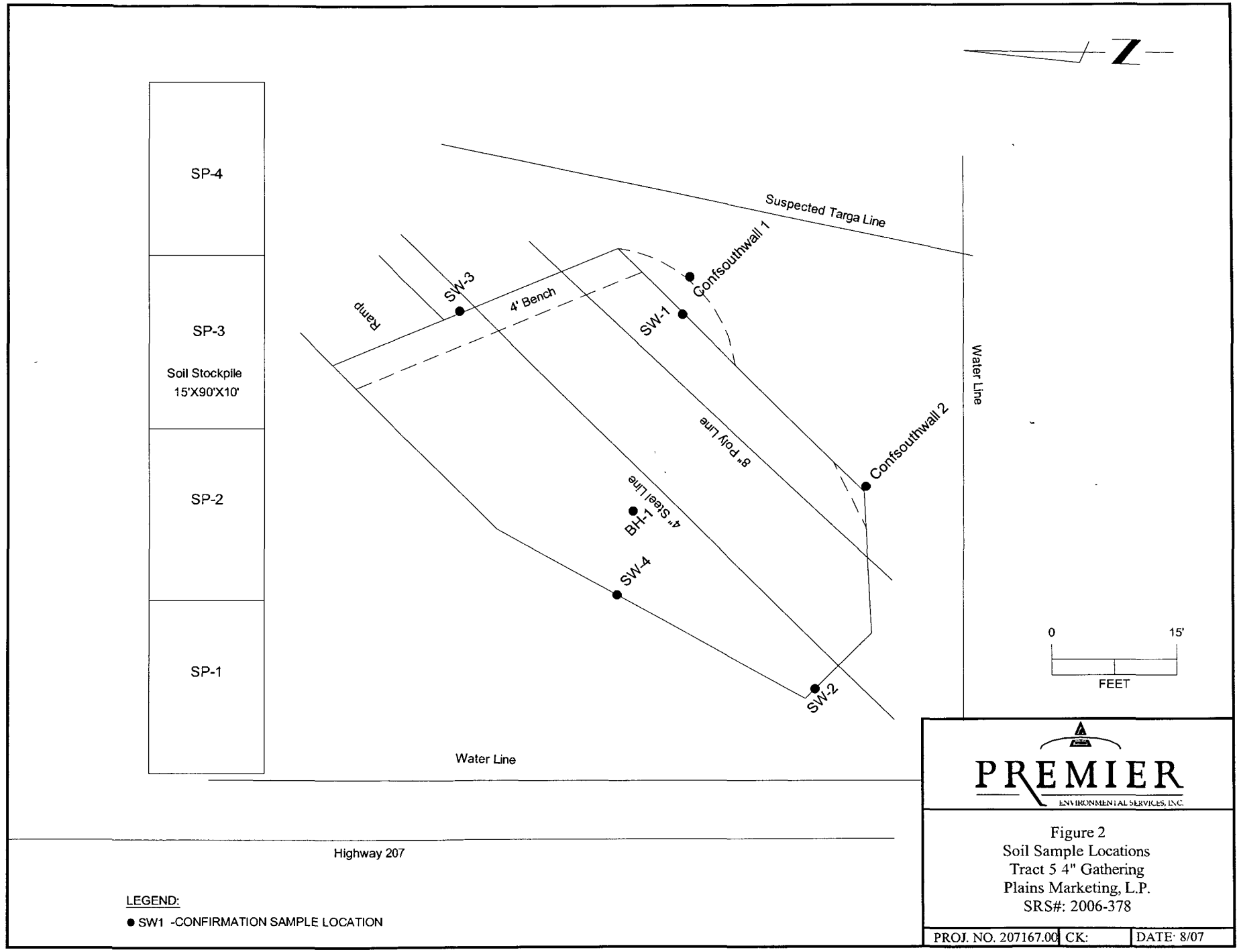
SP-4
SP-3
Soil Stockpile
15'X90'X10'
SP-2
SP-1
Suspected Targa Line
Confsouthwall 1
SW-3
4' Bench
Ramp
SW-1
Water Line
8" Poly Line
Confsouthwall 2
4" Steel Line
BH-1
SW-4
SW-2
Water Line
0
15'
FEET
Highway 207
LEGEND:
● SW1 -CONFIRMATION SAMPLE LOCATION
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Figure 2
Soil Sample Locations
Tract 5 4" Gathering
Plains Marketing, L.P.
SRS#: 2006-378
PROJ. NO. 207167.00
CK:
DATE: 8/07

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SW-3	6/28/2007	11.5	60 8	<0 0022	<0 0044

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SW-1	6/28/2007	10 5	6964	<0 0021	0 037

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SP-4	9/13/2007	NA	<27 1	<0 0011	<0 0011

SP-4

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SP-3	9/13/2007	NA	<27 9	<0 0011	<0 0011

SP-3

Soil Stockpile
15'X90'X10'

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
BH-1	6/28/2007	14	12046	4 862	84.912

SP-2

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SP-2	9/13/2007	NA	56 2	<0 0012	<0 0012

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SW-4	6/28/2007	12 5	<27 0	<0 0022	<0 0043

SP-1

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SP-1	9/13/2007	NA	333 7	<0 0012	<0 0012

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
SW-2	6/28/2007	12	82 9	<0 0021	0 015

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
Confsouthwall 1	9/4/2007	15	<26 6	<0 0011	<0 0011

Location	Date Sampled	Interval	Total TPH EPA 8015 m	Benzene	Total BTEX EPA 8021b
		feet bgs	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals			100	10	50
Confsouthwall 2	9/4/2007	15	<28 0	<0 0011	<0 0011

Suspected Targa Line

Water Line

Confsouthwall 1

Confsouthwall 2

SW-3

4' Bench

SW-1

8" Poly Line

4" Steel Line

BH-1

SW-4

SW-2

N

0 15'

FEET

Water Line

Highway 207

LEGEND:

● SW1 -CONFIRMATION SAMPLE LOCATION

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Figure 3
Soil Analytical Results
Tract 5 4" Gathering
Plains Marketing, L.P.
SRS#: 2006-378

PROJ. NO: 207167.00 | CK. | DATE: 8/07

Appendix B Tables

Table 1 – Site Ranking Matrix (in text)

Table 2 –Soil Sample Analytical Results
Investigation Boring Soil Sample Analytical Results - December 7, 2006

Table 3 – Soil Sample Analytical Results
Side Wall Soil Sample Analytical Results - June 28, 2007
Stockpile Soil Sample Analytical Results - September 13, 2007
Confirmation Soil Sample Analytical Results - September 4, 2007

Table 2
Soil Sample Analytical Results
Plains Marketing, L.P.
Plains SRS No. 2006-378
Tract 5 - 4 Inch Gathering
Lea County, New Mexico

Location	Date Sampled	Interval	Laboratory Sample ID	GRO (C6-C10)	DRO (C10-C28)	ORO (C28-C35)	Total TPH EPA 8015 m	Benzene	Toluene	Ethylbenzene	Total Xylene	Total BTEX EPA 8021b
		feet bgs		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals							**100**	**10**				**50**
T54G12706BH1-22'	12/7/2006	22	6L11012-01	88.7	166	3.95 J	**255**	<0.0250	0.0113 J	0.0442	0.1947	0.239
T54G12706BH1-27'	12/7/2006	27	6L11012-02	42	48.2	<10.0	90.1	<0.0250	<0.0250	<0.0250	<0.0250	0.000
T54G12706BH1-32'	12/7/2006	32	6L11012-03	<10.0	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	0.000
T54G12706BH1-37'	12/7/2006	37	6L11012-04	<10.0	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	0.000
T54G12706BH1-47'	12/7/2006	47	6L11012-05	<10.0	<10.0	<10.0	<10.0	0.0114 J	0.0253	0.0198	0.074 J	0.119

BGS - Below Ground Surface
Concentrations in bold exceed NMOCD Remedaition Goals
J = indicates an estimated value
Samples collected by EPI from a trench cut in the floor of the excavation

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
ORO - Oil Range Organics

Table 3
Soil Sample Analytical Results
Plains Marketing, L.P.
Plains SRS No. 2006-378
Tract 5 - 4 Inch Gathering
Lea County, New Mexico

Location	Date Sampled	Interval	Laboratory Sample ID	GRO (C6-C10)	DRO (C10-C28)	ORO (C28-C35)	Total TPH EPA 8015 m	Benzene	Toluene	Ethylbenzene	Total Xylene	Total BTEX EPA 8021b
		feet bgs		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Remediation Goals							**100**	**10**				**50**
BH-1	6/28/2007	14	285136-001	3120	7950	976	**12046**	4 862	20 860	12.99	46 2	**84.912**
SW-1	6/28/2007	10.5	285136-002	882	5640	442	**6964**	<0.0021	0 0057	0 0048	0.0269	0 037
SW-2	6/28/2007	12	285136-003	<26.2	82.9	<26 2	82 9	<0.0021	0.003	0 0037	0.0089	0 015
SW-3	6/28/2007	11 5	285136-004	<27 2	60 8	<27.2	60 8	<0.0022	<0 0022	<0 0022	<0 0044	0.000
SW-4	6/28/2007	12 5	285136-005	<27 0	<27 0	<27.0	ND	<0.0022	<0 0022	<0 0022	<0 0043	0.000
SP-1	9/13/2007	NA	289570-001	31 6	264	38.1	333 7	<0.0012	<0 0012	<0.0012	<0.0012	0.000
SP-2	9/13/2007	NA	289570-002	<29 8	56 2	<29.8	56 2	<0.0012	<0 0012	<0 0012	<0.0012	0 000
SP-3	9/13/2007	NA	289570-003	<27 9	<27.9	<27.9	ND	<0.0011	<0 0011	<0.0011	<0.0011	0 000
SP-4	9/13/2007	NA	289570-004	<27 1	<27.1	<27.1	ND	<0.0011	<0 0011	<0.0011	<0 0011	0.000
Confsouthwall 1	9/4/2007	15	288933-001	<26.6	<26.6	<26 6	ND	<0.0011	<0.0011	<0.0011	<0.0011	0 000
Confsouthwall 2	9/4/2007	15	288933-002	<28.0	<28 0	<28.0	ND	<0 0011	<0.0011	<0.0011	<0.0011	0 000

SW - Side Wall
SP - Stock Pile
NA - Not applicable
BH - Bottom hole
BGS - Below Ground Surface
Concentrations in bold exceed NMOCD Remedaition Goals
J = indicates an estimated value
GRO - Gasoline Range Organics
DRO - Diesel Range Organics
ORO - Oil Range Organics

Appendix C Analytical Reports

Report 6L11012

Report 285136

Report 289570

Report 28893

ENVIRONMENTAL LAB OF

12600 West I-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: Tract 5 4" Gathering

Project Number: 2006-378

Location: UL-M, Sec. 22, T21S, R37E

Lab Order Number: 6L11012

Report Date: 12/20/06

Plains All American EH & S	Project Tract 5 4" Gathering	Fax (432) 687-4914
1301 S County Road 1150	Project Number 2006-378	
Midland TX, 79706-4476	Project Manager Camille Reynolds	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T54G12706BH1- 22'	6L11012-01	Soil	12/07/06 08 05	12-11-2006 11.20
T54G12706BH1- 27'	6L11012-02	Soil	12/07/06 08 45	12-11-2006 11 20
T54G12706BH1- 32'	6L11012-03	Soil	12/07/06 09:50	12-11-2006 11.20
T54G12706BH1- 37'	6L11012-04	Soil	12/07/06 10 30	12-11-2006 11:20
T54G12706BH1- 47'	6L11012-05	Soil	12/07/06 14:00	12-11-2006 11 20

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Plains All American EH & S	Project Tract 5 4" Gathering	Fax (432) 687-4914
1301 S County Road 1150	Project Number 2006-378	
Midland TX, 79706-4476	Project Manager Camille Reynolds	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T54G12706BH1- 22' (6L11012-01) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EL61903	12/19/06	12/20/06	EPA 8021B	
Toluene	**J [0.0113]**	0 0250	"	"	"	"	"	"	J
Ethylbenzene	**0.0442**	0 0250	"	"	"	"	"	"	
Xylene (p/m)	**0.134**	0 0250	"	"	"	"	"	"	
Xylene (o)	**0.0607**	0 0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**88.7**	10 0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	
Carbon Ranges C12-C28	**166**	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**J [3.95]**	10 0	"	"	"	"	"	"	J
Total Hydrocarbons	**255**	10 0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		*104 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
T54G12706BH1- 27' (6L11012-02) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EL61903	12/19/06	12/19/06	EPA 8021B	
Toluene	ND	0 0250	"	"	"	"	"	"	
Ethylbenzene	ND	0 0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0 0250	"	"	"	"	"	"	
Xylene (o)	ND	0 0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*112 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	**42.0**	10 0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	
Carbon Ranges C12-C28	**48.2**	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**90.1**	10 0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*99.8 %*	*70-130*		"	"	"	"	
T54G12706BH1- 32' (6L11012-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61903	12/19/06	12/19/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0 0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0 0250	"	"	"	"	"	"	
Surrogate. a,a,a-Trifluorotoluene		*110 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	

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

Project: Tract 5 4" Gathering
Project Number 2006-378
Project Manager Camille Reynolds

Fax: (432) 687-4914

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T54G12706BH1- 32' (6L11012-03) Soil									
Carbon Ranges C12-C28	ND	10 0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10 0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*94.0 %*	*70-130*		"	"	"	"	
Surrogate. 1-Chlorooctadecane		*99.2 %*	*70-130*		"	"	"	"	
T54G12706BH1- 37' (6L11012-04) Soil									
Benzene	ND	0 0250	mg/kg dry	25	EL61903	12/19/06	12/19/06	EPA 8021B	
Toluene	ND	0 0250	"	"	"	"	"	"	
Ethylbenzene	ND	0 0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0 0250	"	"	"	"	"	"	
Xylene (o)	ND	0 0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10 0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10 0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10 0	"	"	"	"	"	"	
Surrogate. 1-Chlorooctane		*94 8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*101 %*	*70-130*		"	"	"	"	
T54G12706BH1- 47' (6L11012-05) Soil									
Benzene	**J [0.0114]**	0 0250	mg/kg dry	25	EL61903	12/19/06	12/20/06	EPA 8021B	J
Toluene	**0.0253**	0 0250	"	"	"	"	"	"	
Ethylbenzene	**J [0.0198]**	0 0250	"	"	"	"	"	"	J
Xylene (p/m)	**0.0570**	0 0250	"	"	"	"	"	"	
Xylene (o)	**J [0.0172]**	0 0250	"	"	"	"	"	"	J
Surrogate a.a.a-Trifluorotoluene		*101 %*	*80-120*		"	"	"	"	
Surrogate 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL61108	12/11/06	12/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10 0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10 0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		*86 2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*91.0 %*	*70-130*		"	"	"	"	

Plains All American EH & S	Project Tract 5 4" Gathering	Fax (432) 687-4914
1301 S County Road 1150	Project Number. 2006-378	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T54G12706BH1- 22' (6L11012-01) Soil									
% Moisture	**4.1**	0 1	%	1	EL61201	12/11/06	12/12/06	% calculation	
T54G12706BH1- 27' (6L11012-02) Soil									
% Moisture	**1.0**	0 1	%	1	EL61201	12/11/06	12/12/06	% calculation	
T54G12706BH1- 32' (6L11012-03) Soil									
% Moisture	**1.8**	0 1	%	1	EL61201	12/11/06	12/12/06	% calculation	
T54G12706BH1- 37' (6L11012-04) Soil									
% Moisture	**1.7**	0 1	%	1	EL61201	12/11/06	12/12/06	% calculation	
T54G12706BH1- 47' (6L11012-05) Soil									
% Moisture	**15.9**	0 1	%	1	EL61201	12/11/06	12/12/06	% calculation	

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Plains All American EH & S
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Project: Tract 5 4" Gathering
Project Number: 2006-378
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 EL61108 - Solvent Extraction (GC)										
Blank (EL61108-BLK1)				Prepared & Analyzed 12/11/06						
Carbon Ranges C6-C12	ND	10 0	mg/kg wet							
Carbon Ranges C12-C28	ND	10 0	"							
Carbon Ranges C28-C35	ND	10 0	"							
Total Hydrocarbons	ND	10 0	"							
Surrogate. 1-Chlorooctane	*46.6*		*mg/kg*	*50 0*		*93 2*	*70-130*			
Surrogate. 1-Chlorooctadecane	*49 4*		*"*	*50 0*		*98 8*	*70-130*			
LCS (EL61108-BS1)				Prepared & Analyzed 12/11/06						
Carbon Ranges C6-C12	576	10 0	mg/kg wet	500		115	75-125			
Carbon Ranges C12-C28	498	10 0	"	500		99 6	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00			75-125			
Total Hydrocarbons	1070	10 0	"	1000		107	75-125			
Surrogate 1-Chlorooctane	*62 6*		*mg/kg*	*50 0*		*125*	*70-130*			
Surrogate 1-Chlorooctadecane	*65 0*		*"*	*50 0*		*130*	*70-130*			
Calibration Check (EL61108-CCV1)				Prepared & Analyzed. 12/11/06						
Carbon Ranges C6-C12	200		mg/kg	250		80 0	80-120			
Carbon Ranges C12-C28	265		"	250		106	80-120			
Carbon Ranges C28-C35	0 00		"	0 00			80-120			
Total Hydrocarbons	465		"	500		93 0	80-120			
Surrogate· 1-Chlorooctane	*52.5*		*"*	*50.0*		*105*	*70-130*			
Surrogate· 1-Chlorooctadecane	*52 6*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike (EL61108-MS1)	**Source: 6L11012-03**			Prepared & Analyzed 12/11/06						
Carbon Ranges C6-C12	449	10 0	mg/kg dry	509	ND	88 2	75-125			
Carbon Ranges C12-C28	453	10 0	"	509	ND	89 0	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125			
Total Hydrocarbons	901	10 0	"	1020	ND	88 3	75-125			
Surrogate 1-Chlorooctane	*61 3*		*mg/kg*	*50 0*		*123*	*70-130*			
Surrogate 1-Chlorooctadecane	*60 4*		*"*	*50 0*		*121*	*70-130*			

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

Project: Tract 5 4" Gathering
Project Number: 2006-378
Project Manager: Camille Reynolds

Fax (432) 687-4914

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 EL61108 - Solvent Extraction (GC)										
Matrix Spike Dup (EL61108-MSD1)	**Source: 6L11012-03**			Prepared & Analyzed 12/11/06						
Carbon Ranges C6-C12	455	10 0	mg/kg dry	509	ND	89 4	75-125	1 35	20	
Carbon Ranges C12-C28	452	10 0	"	509	ND	88 8	75-125	0 225	20	
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125		20	
Total Hydrocarbons	907	10 0	"	1020	ND	88 9	75-125	0 677	20	
Surrogate 1-Chlorooctane	*61 2*		*mg/kg*	*50 0*		*122*	*70-130*			
Surrogate 1-Chlorooctadecane	*56 8*		*"*	*50 0*		*114*	*70-130*			
Batch EL61903 - EPA 5030C (GC)										
Blank (EL61903-BLK1)				Prepared & Analyzed 12/19/06						
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 4*		*ug/kg*	*40 0*		*104*	*80-120*			
Surrogate 4-Bromofluorobenzene	*41 6*		*"*	*40 0*		*104*	*80-120*			
LCS (EL61903-BS1)				Prepared & Analyzed 12/19/06						
Benzene	1 41	0 0250	mg/kg wet	1 25		113	80-120			
Toluene	1 37	0 0250	"	1 25		110	80-120			
Ethylbenzene	1 31	0 0250	"	1 25		105	80-120			
Xylene (p/m)	2 50	0 0250	"	2 50		100	80-120			
Xylene (o)	1 18	0 0250	"	1 25		94 4	80-120			
Surrogate. a,a,a-Trifluorotoluene	*47 8*		*ug/kg*	*40 0*		*120*	*80-120*			
Surrogate 4-Bromofluorobenzene	*40 8*		*"*	*40 0*		*102*	*80-120*			

Plains All American EH & S
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Project Tract 5 4" Gathering
Project Number 2006-378
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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 EL61903 - EPA 5030C (GC)										
Calibration Check (EL61903-CCV1)				Prepared: 12/19/06 Analyzed 12/20/06						
Benzene	47 0		ug/kg	50 0		94 0	80-120			
Toluene	47 2		"	50 0		94.4	80-120			
Ethylbenzene	48 8		"	50 0		97 6	80-120			
Xylene (p/m)	89.3		"	100		89 3	80-120			
Xylene (o)	44 6		"	50 0		89 2	80-120			
Surrogate a,a,a-Trifluorotoluene	*37.7*		"	*40 0*		*94 2*	*80-120*			
Surrogate. 4-Bromofluorobenzene	*34.7*		"	*40.0*		*86 8*	*80-120*			
Matrix Spike (EL61903-MS1)	**Source: 6L11012-05**			Prepared 12/19/06 Analyzed 12/20/06						
Benzene	1 54	0 0250	mg/kg dry	1 49	0 0114	103	80-120			
Toluene	1 55	0 0250	"	1 49	0 0253	102	80-120			
Ethylbenzene	1 60	0 0250	"	1 49	0.0198	106	80-120			
Xylene (p/m)	3.00	0 0250	"	2.97	0 0570	99 1	80-120			
Xylene (o)	1 44	0 0250	"	1 49	0 0172	95 5	80-120			
Surrogate a,a,a-Trifluorotoluene	*41 2*		*ug/kg*	*40 0*		*103*	*80-120*			
Surrogate 4-Bromofluorobenzene	*42 8*		"	*40 0*		*107*	*80-120*			
Matrix Spike Dup (EL61903-MSD1)	**Source: 6L11012-05**			Prepared: 12/19/06 Analyzed. 12/20/06						
Benzene	1 45	0 0250	mg/kg dry	1 49	0 0114	96 6	80-120	6 41	20	
Toluene	1 44	0 0250	"	1.49	0 0253	94 9	80-120	7 21	20	
Ethylbenzene	1 45	0 0250	"	1 49	0 0198	96 0	80-120	9 90	20	
Xylene (p/m)	2 78	0 0250	"	2 97	0 0570	91 7	80-120	7.76	20	
Xylene (o)	1 33	0 0250	"	1 49	0 0172	88 1	80-120	8 06	20	
Surrogate a,a,a-Trifluorotoluene	*42 0*		*ug/kg*	*40 0*		*105*	*80-120*			
Surrogate 4-Bromofluorobenzene	*41 0*		"	*40 0*		*102*	*80-120*			

Plains All American EH & S	Project Tract 5 4" Gathering	Fax (432) 687-4914
1301 S County Road 1150	Project Number 2006-378	
Midland TX, 79706-4476	Project Manager Camille Reynolds	

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 EL61201 - General Preparation (Prep)										
Blank (EL61201-BLK1)				Prepared: 12/11/06 Analyzed 12/12/06						
% Solids	100		%							
Duplicate (EL61201-DUP1)		**Source: 6L11002-01**		Prepared 12/11/06 Analyzed. 12/12/06						
% Solids	96 2		%		96.2			0 00	20	

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Plains All American EH & S	Project Tract 5 4" Gathering	Fax (432) 687-4914
1301 S County Road 1150	Project Number 2006-378	
Midland TX, 79706-4476	Project Manager Camille Reynolds	

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: 12/20/2006

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.

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Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(505) 394-3481 FAX: (505) 394-2601

p 1 of 1 LAB: ELT

Company Name	Environmental Plus, Inc.
EPI Project Manager	Pat McCasland
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, L.P.
Facility Name	Tract 5 4-inch Gathering
Location	UL-M, Sec. 22, T21S, R37E
Project Reference	2006-378
EPI Sampler Name	George Blackburn

Bill To

PLAINS ALL AMERICAN PIPELINE, L.P

Attn: ENV Accounts Payable
PO Box 4648,
Houston, TX 77210-4648

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES (SO_4^-)	pH	TCLP	OTHER >>>	PAH
6L11012																						
-01 1	T54G12706BH1-22'	G	1			X					X		07-Dec-06	8:05	X	X						
-02 2	T54G12706BH1-27'	G	1			X					X		07-Dec-06	8:45	X	X						
-03 3	T54G12706BH1-32'	G	1			X					X		07-Dec-06	9:50	X	X						
-04 4	T54G12706BH1-37'	G	1			X					X		07-Dec-06	10:30	X	X						
-05 5	T54G12706BH1-47'	G	1			X					X		07-Dec-06	2:00	X	X						
6																						
7																						
8																						
9																						
10																						

Sampler Relinquished:	Date: 12-11-06	Received By:	E-mail results to: pmccasland@envplus.net
	Time: 9:50	Aaron Boone	NOTES: CoC requested.
Relinquished by: Aaron Boone	Date: 12-11-06	Received By: (lab staff)	2.0 4oz jar w/seal jar w/label
	Time: 11:20		
Delivered by:	Sample Cool & Intact: Yes / No	Checked By:	

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 12/11/00 11:20

Lab ID #: 46-11012

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	2.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 285136

for

Premier Environmental

Project Manager: Chan Patel

Track 5

207167.00

05-JUL-07

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

XENCO Laboratories

05-JUL-07

Project Manager: **Chan Patel**
Premier Environmental
30 W Industrial Loop Ste. I
Midland, TX 79701

Reference: XENCO Report No: **285136**
Track 5
Project Address: Eunice, NM

Chan Patel:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 285136. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 285136 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron
Odessa Laboratory Director

Sample Cross Reference 285136

Premier Environmental, Midland, TX

Track 5

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1	S	Jun-28-07 10:10		285136-001
SW-1	S	Jun-28-07 10:20		285136-002
SW-2	S	Jun-28-07 10:30		285136-003
SW-3	S	Jun-28-07 10:40		285136-004
SW-4	S	Jun-28-07 10:45		285136-005

Certificate of Analysis Summary 285136

Premier Environmental, Midland, TX

Project Name: Track 5

Project Id: 207167.00
Contact: Chan Patel
Project Location: Eunice, NM

Date Received in Lab: Thu Jun-28-07 02:09 pm
Report Date: 05-JUL-07
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	285136-001		285136-002		285136-003		285136-004		285136-005	
	Field Id:	BH-1		SW-1		SW-2		SW-3		SW-4	
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-28-07 10.10		Jun-28-07 10:20		Jun-28-07 10.30		Jun-28-07 10.40		Jun-28-07 10:45	
BTEX by EPA 8021B	*Extracted:*	Jul-02-07 13:00		Jul-02-07 13:00		Jul-02-07 13:00		Jul-02-07 13:00		Jul-02-07 13:00	
	Analyzed:	Jul-02-07 23:43		Jul-03-07 00:03		Jul-03-07 00:24		Jul-03-07 00:45		Jul-03-07 01:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		4.862	0.0287	ND	0.0021	ND	0 0021	ND	0 0022	ND	0.0022
Toluene		20.86	0.0287	0.0057	0 0021	0.0027	0.0021	ND	0.0022	ND	0.0022
Ethylbenzene		12.99	0.0287	0.0048	0.0021	0.0037	0.0021	ND	0.0022	ND	0.0022
m,p-Xylene		30.59	0.0573	0.0163	0 0042	0.0061	0 0042	ND	0.0044	ND	0.0043
o-Xylene		15.61	0.0287	0.0106	0 0021	0.0028	0.0021	ND	0.0022	ND	0.0022
Total Xylenes		46.2		0.0269		0.0089		ND		ND	
Total BTEX		84.912		0.0374		0 0153		ND		ND	
Percent Moisture	*Extracted:*										
	Analyzed:	Jun-28-07 18:15		Jun-28-07 18:20		Jun-28-07 18:25		Jun-28-07 18:30		Jun-28-07 18:35	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		12 8		3.72		4 61		8.21		7.45	
TPH by SW8015 Mod	*Extracted:*	Jul-02-07 15:54		Jul-02-07 15:54		Jul-02-07 15:54		Jul-02-07 15:54		Jul-02-07 15:54	
	Analyzed:	Jul-03-07 02:07		Jul-03-07 02:32		Jul-03-07 02:56		Jul-03-07 03:21		Jul-03-07 03:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		3120	143	882	26.0	ND	26.2	ND	27 2	ND	27.0
C12-C28 Diesel Range Hydrocarbons		7950	143	5640	26.0	82.9	26.2	60.8	27.2	ND	27.0
C28-C35 Oil Range Hydrocarbons		976	143	442	26.0	ND	26.2	ND	27.2	ND	27.0
Total TPH		12046		6964		82.9		60.8		ND	

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Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Track 5

Work Order #: 285136 **Project ID:** 207167.00

Lab Batch #: 699664 **Sample:** 285136-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.1142	0.0500	228	75-125	**

Lab Batch #: 699664 **Sample:** 285136-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0355	0.0500	71	75-125	**

Lab Batch #: 699664 **Sample:** 285136-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0431	0.0500	86	75-125	

Lab Batch #: 699664 **Sample:** 285136-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0394	0.0500	79	75-125	

Lab Batch #: 699664 **Sample:** 285136-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0456	0.0500	91	75-125	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Track 5

Work Order #: 285136 **Project ID:** 207167.00

Lab Batch #: 699664 **Sample:** 285189-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0479	0.0500	96	75-125	

Lab Batch #: 699664 **Sample:** 285189-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0455	0.0500	91	75-125	

Lab Batch #: 699664 **Sample:** 496717-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0518	0.0500	104	80-120	

Lab Batch #: 699664 **Sample:** 496717-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	ND	ND		80-120	*U
4-Bromofluorobenzene	0.0485	0.0500	97	80-120	

Lab Batch #: 699594 **Sample:** 285136-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	42.5	50 0	85	70-135	
1-Chlorooctane	68.5	50.0	137	70-135	**

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Track 5

Work Order #: 285136 **Project ID:** 207167.00

Lab Batch #: 699594 **Sample:** 285136-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	41.8	50.0	84	70-135	
1-Chlorooctane	54.7	50.0	109	70-135	

Lab Batch #: 699594 **Sample:** 285136-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	44.0	50.0	88	70-135	
1-Chlorooctane	44.7	50.0	89	70-135	

Lab Batch #: 699594 **Sample:** 285136-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	44 8	50.0	90	70-135	
1-Chlorooctane	45.3	50.0	91	70-135	

Lab Batch #: 699594 **Sample:** 285136-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	40.5	50.0	81	70-135	
1-Chlorooctane	41.7	50.0	83	70-135	

Lab Batch #: 699594 **Sample:** 285197-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	41.1	50.0	82	70-135	
1-Chlorooctane	45.4	50.0	91	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Track 5

Work Order #: 285136 **Project ID:** 207167.00

Lab Batch #: 699594 **Sample:** 285197-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	42.8	50.0	86	70-135	
1-Chlorooctane	50.0	50.0	100	70-135	

Lab Batch #: 699594 **Sample:** 496733-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	51.2	50.0	102	70-135	
1-Chlorooctane	59.0	50.0	118	70-135	

Lab Batch #: 699594 **Sample:** 496733-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	49 3	50.0	99	70-135	
1-Chlorooctane	49 3	50 0	99	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Track 5

Work Order #: 285136 **Project ID:** 207167.00

Lab Batch #: 699664 **Sample:** 496717-1-BKS **Matrix:** Solid

Date Analyzed: 07/02/2007 **Date Prepared:** 07/02/2007 **Analyst:** CELKEE

Reporting Units: mg/kg **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
Benzene	ND	0 0500	0 0494	99	70-130	
Toluene	ND	0.0500	0.0504	101	70-130	
Ethylbenzene	ND	0.0500	0.0558	112	71-129	
m,p-Xylene	ND	0.1000	0.1000	100	70-135	
o-Xylene	ND	0.0500	0.0544	109	71-133	

Lab Batch #: 699594 **Sample:** 496733-1-BKS **Matrix:** Solid

Date Analyzed: 07/03/2007 **Date Prepared:** 07/02/2007 **Analyst:** SHE

Reporting Units: mg/kg **Batch #:** 1

TPH by SW8015 Mod Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
C6-C12 Gasoline Range Hydrocarbons	ND	500	614	123	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	500	518	104	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Track 5

Work Order # : 285136 **Project ID:** 207167.00

Lab Batch ID: 699664 **QC- Sample ID:** 285189-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/03/2007 **Date Prepared:** 07/02/2007 **Analyst:** CELKEE

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1066	0.1009	95	0.1066	0.0996	93	2	70-130	35	
Toluene	ND	0.1066	0.1004	94	0.1066	0.1001	94	0	70-130	35	
Ethylbenzene	ND	0.1066	0.1079	101	0.1066	0.1091	102	1	71-129	35	
m,p-Xylene	ND	0.2131	0.1902	89	0.2131	0.1922	90	1	70-135	35	
o-Xylene	ND	0.1066	0.1044	98	0.1066	0.1058	99	1	71-133	35	

Lab Batch ID: 699594 **QC- Sample ID:** 285197-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/03/2007 **Date Prepared:** 07/02/2007 **Analyst:** SHE

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	565	608	108	565	626	111	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	565	510	90	565	529	94	4	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Track 5

Work Order #: 285136

Lab Batch #: 699443 **Project ID:** 207167.00

Date Analyzed: 06/28/2007 **Date Prepared:** 06/28/2007 **Analyst:** IRO

QC- Sample ID: 285050-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	23.4	26.6	13	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone 432-563-1800
Fax. 432-563-1713

Project Manager: Chan Patel
Company Name: Premier Environmental
Company Address: 30 w Industrial Loop Ste F
City/State/Zip: Midland, TX 79701
Telephone No: 432-230-0808 Fax No:
Sampler Signature: Robert Ellis e-mail: cpatel@premierenv-usa.com

Project Name: Track 5
Project #: 207167.00
Project Loc: Eunice NM
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 285136

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water GW=Groundwater SW=Surface Water SL=Sludge S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH 418.1 (8015M)	TPH (TX1005)	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semivolatiles	TOTAL BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	BH-1			6/28	1010			X								S	X													
02	SW-1				1020											S														
03	2				1030											S														
04	3				1040											S														
05	4				1045			Y								S														✓

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
Robert Ellis	6/28/17	1405			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
			Willie Kelly	6/28/17	14:04

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep ? Y N
by Courier? UPS DHL FedEx Lone Star
402 4938
Temperature Upon Receipt 4.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Premier Env

Date/ Time: 6.28.07 14.07

Lab ID #: 285136

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 288933

for

PLAINS ALL AMERICAN EH&S

Project Manager: Daniel Bryant

Trac 5

SRS# 2006-0378

07-SEP-07

ENVIRONMENTAL LAB OF

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

07-SEP-07

Project Manager: **Daniel Bryant**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **288933**
Trac 5
Project Address: Lea Co., NM

Daniel Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 288933. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 288933 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron
Odessa Laboratory Director

Sample Cross Reference 288933

PLAINS ALL AMERICAN EH&S, Midland, TX

Trac 5

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Confsouthwall 1	S	Sep-04-07 12:20		288933-001
Confsouthwall 2	S	Sep-04-07 12:45		288933-002

Certificate of Analysis Summary 288933
PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Trac 5

Project Id: SRS# 2006-0378
Contact: Daniel Bryant
Project Location: Lea Co., NM.

Date Received in Lab: Sep-04-07 03:30 pm
Report Date: 07-SEP-07
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	288933-001		288933-002			
	Field Id:	Confsouthwall 1		Confsouthwall 2			
	Depth:						
	Matrix:	SOIL		SOIL			
	Sampled:	Sep-04-07 12:20		Sep-04-07 12:45			
BTEX-MTBE by SW 8260B	*Extracted:*	Sep-05-07 09:22		Sep-05-07 09:24			
	Analyzed:	Sep-05-07 13:22		Sep-05-07 13.41			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		ND	0 0011	ND	0.0011		
Toluene		ND	0 0011	ND	0.0011		
Ethylbenzene		ND	0.0011	ND	0.0011		
m,p-Xylenes		ND	0.0021	ND	0.0022		
o-Xylene		ND	0.0011	ND	0.0011		
Total BTEX		ND		ND			
Total Xylenes		ND		ND			
Percent Moisture	*Extracted:*						
	Analyzed:	Sep-04-07 16:00		Sep-04-07 16:00			
	Units/RL:	%	RL	%	RL		
Percent Moisture		5.99	1.00	10.8	1.00		
TPH by SW8015 Mod.	*Extracted:*	Sep-05-07 11.02		Sep-05-07 11.02			
	Analyzed:	Sep-06-07 00:23		Sep-06-07 00:48			
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	26.6	ND	28.0		
C12-C28 Diesel Range Hydrocarbons		ND	26 6	ND	28.0		
C28-C35 Oil Range Hydrocarbons		ND	26.6	ND	28.0		
Total TPH		ND		ND			

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Trac 5

Work Order #: 288933 **Project ID:** SRS# 2006-0378

Lab Batch #: 703618 **Sample:** 288933-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0527	0.0499	106	74-121	
Dibromofluoromethane	0.0499	0.0499	100	80-120	
1,2-Dichloroethane-D4	0.0537	0.0499	108	80-120	
Toluene-D8	0.0492	0 0499	99	81-117	

Lab Batch #: 703618 **Sample:** 288933-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0477	0.0488	98	74-121	
Dibromofluoromethane	0.0523	0.0488	107	80-120	
1,2-Dichloroethane-D4	0.0575	0.0488	118	80-120	
Toluene-D8	0.0455	0.0488	93	81-117	

Lab Batch #: 703618 **Sample:** 288938-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0 2559	0.2404	106	74-121	
Dibromofluoromethane	0.2539	0.2404	106	80-120	
1,2-Dichloroethane-D4	0.2532	0.2404	105	80-120	
Toluene-D8	0.2149	0 2404	89	81-117	

Lab Batch #: 703618 **Sample:** 288938-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.2426	0.2451	99	74-121	
Dibromofluoromethane	0.2491	0.2451	102	80-120	
1,2-Dichloroethane-D4	0.2618	0 2451	107	80-120	
Toluene-D8	0.2444	0.2451	100	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Trac 5

Work Order #: 288933 **Project ID:** SRS# 2006-0378

Lab Batch #: 703618 **Sample:** 499005-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0505	0.0500	101	74-121	
Dibromofluoromethane	0.0482	0.0500	96	80-120	
1,2-Dichloroethane-D4	0.0525	0.0500	105	80-120	
Toluene-D8	0.0467	0.0500	93	81-117	

Lab Batch #: 703618 **Sample:** 499005-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX-MTBE by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0535	0 0500	107	74-121	
Dibromofluoromethane	0 0467	0.0500	93	80-120	
1,2-Dichloroethane-D4	0.0525	0 0500	105	80-120	
Toluene-D8	0.0509	0.0500	102	81-117	

Lab Batch #: 703782 **Sample:** 288933-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	38.1	50.0	76	70-135	
1-Chlorooctane	38.0	50.0	76	70-135	

Lab Batch #: 703782 **Sample:** 288933-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	40.3	50.0	81	70-135	
1-Chlorooctane	47.3	50.0	95	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes

Form 2 - Surrogate Recoveries

Project Name: Trac 5

Work Order #: 288933 **Project ID:** SRS# 2006-0378

Lab Batch #: 703782 **Sample:** 288933-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	41.1	50 0	82	70-135	
1-Chlorooctane	48.4	50.0	97	70-135	

Lab Batch #: 703782 **Sample:** 288933-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	39.0	50.0	78	70-135	
1-Chlorooctane	38.2	50.0	76	70-135	

Lab Batch #: 703782 **Sample:** 498999-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	38.6	50.0	77	70-135	
1-Chlorooctane	43.9	50.0	88	70-135	

Lab Batch #: 703782 **Sample:** 498999-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod. Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	37 4	50.0	75	70-135	
1-Chlorooctane	37.0	50.0	74	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Trac 5

Work Order #: 288933 **Project ID:** SRS# 2006-0378

Lab Batch #: 703618 **Sample:** 499005-1-BKS **Matrix:** Solid

Date Analyzed: 09/05/2007 **Date Prepared:** 09/05/2007 **Analyst:** BEC

Reporting Units: mg/kg **Batch #:** 1

BTEX-MTBE by SW 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
Benzene	ND	0.1000	0 0999	100	66-142	
Toluene	ND	0.1000	0 0853	85	59-139	
Ethylbenzene	ND	0.1000	0.0925	93	75-125	
m,p-Xylenes	ND	0.2000	0.1733	87	75-125	
o-Xylene	ND	0.1000	0 1001	100	75-125	

Lab Batch #: 703782 **Sample:** 498999-1-BKS **Matrix:** Solid

Date Analyzed: 09/05/2007 **Date Prepared:** 09/05/2007 **Analyst:** ASA

Reporting Units: mg/kg **Batch #:** 1

TPH by SW8015 Mod. Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
C6-C12 Gasoline Range Hydrocarbons	ND	500	553	111	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	500	477	95	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Trac 5

Work Order # : 288933 **Project ID:** SRS# 2006-0378

Lab Batch ID: 703618 **QC- Sample ID:** 288938-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/05/2007 **Date Prepared:** 09/05/2007 **Analyst:** BEC

Reporting Units: mg/kg

BTEX-MTBE by SW 8260B	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.4808	0.4375	91	0.4902	0 4454	91	0	66-142	25	
Toluene	ND	0.4808	0.4049	84	0.4902	0.4371	89	6	59-139	25	
Ethylbenzene	ND	0.4808	0.4490	93	0.4902	0.4525	92	1	75-125	25	
m,p-Xylenes	ND	0.9615	0.9248	96	0.9804	0.8958	91	5	75-125	25	
o-Xylene	ND	0.4808	0.4733	98	0.4902	0.4946	101	3	75-125	25	

Lab Batch ID: 703782 **QC- Sample ID:** 288933-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/06/2007 **Date Prepared:** 09/05/2007 **Analyst:** ASA

Reporting Units: mg/kg

TPH by SW8015 Mod.	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	532	596	112	532	611	115	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	532	514	97	532	525	99	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Trac 5

Work Order #: 288933

Lab Batch #: 703701 **Project ID:** SRS# 2006-0378

Date Analyzed: 09/04/2007 **Date Prepared:** 09/04/2007 **Analyst:** RBA

QC- Sample ID: 288260-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	10 2	9.78	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax. 432-563-1713

Project Manager: Chan Patell
Company Name: Premier Environmental Services
Company Address: 4800 Sugar grove Blvd
City/State/Zip: Stafford, Texas 77477
Telephone No: 281 2405 5200 Fax No: 281 240 5201
Sampler Signature: [signature] e-mail: cpatel@premiercorp-usa.com

Project Name: Trac 5
Project #: ~~2074667~~ 207167
Project Loc: Lea Co. NM
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 288933

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP TPH 418.1	8015M	TX 1005	TPH TX 1005	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL BTEX 8021B/5030 or BTEX 8260	RCI	NO3 N M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Confsouthwall1			9/4/2007	1220		1	x									S											x				x
02	Confsouthwall2			9/4/2007	1245		1	x									S					x						x				x

Special Instructions: Bill to Plains All American Pipeline SRS# 2006-0378

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9-4-07	15:30			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Andrea Lam	Date: 9.4.07	Time: 15:20

Laboratory Comments:

Sample Containers intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s) on lid	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?	Y	N

by Courier? UPS DHL FedEx Lone Star
4 oz glass
Temperature Upon Receipt: 5.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains | Premier

Date/ Time: 9 4 07 15 30

Lab ID #: 288933

Initials: GL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	5.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 289570

for

PLAINS ALL AMERICAN EH&S

Project Manager: Daniel Bryant

Tract-5

2006-0378

18-SEP-07

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

18-SEP-07

Project Manager: **Daniel Bryant**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **289570**
Tract-5
Project Address: Eunice, NM

Daniel Bryant:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 289570. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 289570 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron
Odessa Laboratory Director

Sample Cross Reference 289570

PLAINS ALL AMERICAN EH&S, Midland, TX

Tract-5

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	Sep-13-07 12:00		289570-001
SP-2	S	Sep-13-07 12:15		289570-002
SP-3	S	Sep-13-07 12:30		289570-003
SP-4	S	Sep-13-07 12:45		289570-004

Certificate of Analysis Summary 289570

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Tract-5

Project Id: 2006-0378
Contact: Daniel Bryant
Project Location: Eunice, NM

Date Received in Lab: Thu Sep-13-07 01:45 pm
Report Date: 18-SEP-07
Project Manager: Brent Barron, II

Analysis Requested									
	Lab Id:	289570-001		289570-002		289570-003		289570-004	
	Field Id:	SP-1		SP-2		SP-3		SP-4	
	Depth:								
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-13-07 12:00		Sep-13-07 12:15		Sep-13-07 12:30		Sep-13-07 12:45	
BTEX by EPA 8021B	*Extracted:*	Sep-14-07 15:49		Sep-14-07 15:49		Sep-14-07 15.49		Sep-14-07 15.49	
	Analyzed:	Sep-14-07 17 51		Sep-14-07 18:11		Sep-14-07 18:32		Sep-14-07 18:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0 0012	ND	0 0012	ND	0.0011	ND	0 0011
Toluene		ND	0.0012	ND	0 0012	ND	0.0011	ND	0 0011
Ethylbenzene		ND	0.0012	ND	0.0012	ND	0.0011	ND	0.0011
m,p-Xylene		ND	0.0023	ND	0.0024	ND	0 0022	ND	0.0022
o-Xylene		ND	0.0012	ND	0 0012	ND	0.0011	ND	0 0011
Total Xylenes		ND		ND		ND		ND	
Total BTEX		ND		ND		ND		ND	
Percent Moisture	*Extracted:*								
	Analyzed:	Sep-13-07 16:15		Sep-13-07 16:15		Sep-13-07 16:15		Sep-13-07 16:15	
	Units/RL:	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.3	1 00	16.0	1.00	10.5	1.00	7.88	1.00
TPH by Texas1005	*Extracted:*	Sep-14-07 11 30		Sep-14-07 11:30		Sep-14-07 11:30		Sep-14-07 11:30	
	Analyzed:	Sep-14-07 23:45		Sep-15-07 00:10		Sep-15-07 00:35		Sep-15-07 01:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		31.6	28.8	ND	29.8	ND	27.9	ND	27.1
C12-C28 Diesel Range Hydrocarbons		264	28.8	56.2	29.8	ND	27 9	ND	27.1
C28-C35 Oil Range Hydrocarbons		38.1	28.8	ND	29.8	ND	27.9	ND	27.1
Total TPH 1005		333 7		56.2		ND		ND	

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Tract-5

Work Order #: 289570 **Project ID:** 2006-0378

Lab Batch #: 704440 **Sample:** 289570-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0283	0.0500	57	80-120	**

Lab Batch #: 704440 **Sample:** 289570-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0397	0 0500	79	80-120	**

Lab Batch #: 704440 **Sample:** 289570-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0497	0.0500	99	80-120	

Lab Batch #: 704440 **Sample:** 289570-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0276	0.0500	55	80-120	**

Lab Batch #: 704440 **Sample:** 289576-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0 1646	0.2500	66	80-120	*

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Tract-5

Work Order #: 289570 **Project ID:** 2006-0378

Lab Batch #: 704440 **Sample:** 289576-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.1650	0.2500	66	80-120	*

Lab Batch #: 704440 **Sample:** 499367-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.2151	0.2500	86	80-120	

Lab Batch #: 704440 **Sample:** 499367-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	ND	ND		80-120	*
4-Bromofluorobenzene	0.2196	0.2500	88	80-120	

Lab Batch #: 704439 **Sample:** 289424-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	35.3	50.0	71	70-135	
1-Chlorooctane	41.5	50.0	83	70-135	

Lab Batch #: 704439 **Sample:** 289424-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	35.5	50.0	71	70-135	
1-Chlorooctane	42.7	50 0	85	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Tract-5

Work Order #: 289570 **Project ID:** 2006-0378

Lab Batch #: 704439 **Sample:** 289570-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	37.6	50.0	75	70-135	
1-Chlorooctane	35.8	50.0	72	70-135	

Lab Batch #: 704439 **Sample:** 289570-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	36.1	50.0	72	70-135	
1-Chlorooctane	35.5	50.0	71	70-135	

Lab Batch #: 704439 **Sample:** 289570-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	37.9	50.0	76	70-135	
1-Chlorooctane	37.6	50.0	75	70-135	

Lab Batch #: 704439 **Sample:** 289570-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	35.4	50.0	71	70-135	
1-Chlorooctane	35.2	50.0	70	70-135	

Lab Batch #: 704439 **Sample:** 499336-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	39.5	50.0	79	70-135	
1-Chlorooctane	46.4	50.0	93	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Tract-5

Work Order #: 289570 **Project ID:** 2006-0378

Lab Batch #: 704439 **Sample:** 499336-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	37.5	50.0	75	70-135	
1-Chlorooctane	37.3	50 0	75	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Tract-5

Work Order #: 289570 **Project ID:** 2006-0378

Lab Batch #: 704440 **Sample:** 499367-1-BKS **Matrix:** Solid

Date Analyzed: 09/14/2007 **Date Prepared:** 09/14/2007 **Analyst:** SHE

Reporting Units: mg/kg **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
Benzene	ND	0.2500	0.2142	86	70-130	
Toluene	ND	0.2500	0.2340	94	70-130	
Ethylbenzene	ND	0.2500	0.2499	100	71-129	
m,p-Xylene	ND	0.5000	0.4657	93	70-135	
o-Xylene	ND	0.2500	0.2367	95	71-133	

Lab Batch #: 704439 **Sample:** 499336-1-BKS **Matrix:** Solid

Date Analyzed: 09/14/2007 **Date Prepared:** 09/14/2007 **Analyst:** SHE

Reporting Units: mg/kg **Batch #:** 1

TPH by Texas1005 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
		BLANK /BLANK SPIKE RECOVERY STUDY				
C6-C12 Gasoline Range Hydrocarbons	ND	500	578	116	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	500	501	100	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Tract-5

Work Order # 289570 **Project ID:** 2006-0378

Lab Batch ID: 704440 **QC- Sample ID:** 289576-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/17/2007 **Date Prepared:** 09/14/2007 **Analyst:** SHE

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Benzene	ND	0.2995	0.2134	71	0.2995	0.2106	70	1	70-130	35	
Toluene	ND	0.2995	0.2266	76	0 2995	0.2201	73	4	70-130	35	
Ethylbenzene	ND	0.2995	0.2138	71	0.2995	0.2188	73	3	71-129	35	
m,p-Xylene	ND	0.5989	0.4399	73	0.5989	0.4378	73	0	70-135	35	
o-Xylene	ND	0.2995	0.2157	72	0 2995	0.2103	70	3	71-133	35	X

Lab Batch ID: 704439 **QC- Sample ID:** 289424-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/17/2007 **Date Prepared:** 09/14/2007 **Analyst:** SHE

Reporting Units: mg/kg

TPH by Texas1005 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	ND	595	649	109	595	643	108	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	595	543	91	595	541	91	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Tract-5

Work Order #: 289570

Lab Batch #: 704332 **Project ID:** 2006-0378

Date Analyzed: 09/13/2007 **Date Prepared:** 09/13/2007 **Analyst:** RBA

QC- Sample ID: 289533-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture **Analyte**	**Parent Sample Result [A]**	**Sample Duplicate Result [B]**	**RPD**	**Control Limits %RPD**	**Flag**
Percent Moisture	16 5	15.9	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

12600 West I-20 East
Odessa, Texas 79765

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Chris [illegible]
Company Name: [illegible] Environmental
Company Address: 30 W [illegible] Ste J
City/State/Zip: Midland, Tx
Telephone No: (432) 230 [illegible]
Fax No:
Sampler Signature: [illegible signature]
e-mail: [illegible]

Project Name: [illegible] 5
Project #: 2076 [illegible] 2006 [illegible]
Project Loc: [illegible]
PO #:

Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 289570

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix (DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non Potable Specify Other)	TPH 418.1 8015M 8015B	TPH TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	SP 1			9/13/07	1200		1	✓								S		✓							✓				✓
02	" 2				1215		1	✓								S		✓							✓				✓
03	" 3				1230		1	✓								S		✓							✓				✓
04	" 4			↓	1245		1	✓								S		✓							✓				✓

Analyze For: TCLP / TOTAL

Special Instructions: Plains Daniel Bryant.

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9/13/07	1345			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Andrea [illegible]	9 13 07	13:45

Laboratory Comments:
[redacted]
VOCs Free of Headspace? Y N
[redacted]
Custody seals on container(s) Y N
[redacted]
Sample Hand Delivered Y N
by Sampler/Client Rep ? N
by Courier? UPS DHL FedEx Lone Star
2/oz glass
Temperature Upon Receipt 4.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Premier Env / Plains

Date/ Time: 9 13 07 13:45

Lab ID #: 289570

Initials: AL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	4 / 5 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	Yes	No	(written on Cont / Lid)	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Appendix D Regulatory Information

New Mexico Office of State Engineer Water Well Report

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 21S Range: 37E Sections: 22

NAD27 X: Y: Zone: Search Radius:

County: LE Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

WATER COLUMN REPORT 08/29/2007

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water Column (in feet)
CP 00252	21S	37E	22	4	2	4				106		
CP 00251	21S	37E	22	4	3	2				103		
CP 00881	21S	37E	22	4	4	3				95	53	42

Record Count: 3

POD / SURFACE DATA REPORT 08/29/2007

(quarters are 1=NW 2=NE 3=SW 4=SE)
(acre ft per annum)
(quarters are biggest to smallest X Y are in Feet UTM are in Meters)

DB File Nbr	Use	Diversion	Owner	POD Number
Source Tws Rng Sec q q q	Zone	X	Y	UTM Zone Easting
Northing Start Date	Finish Date	Depth Well	Depth (in feet) Water	
CP 00251	IND	48	VERSADO GAS PROCESSORS LLC	CP 00251
21S 37E 22 4 3 2			13	674151 3592707
12/31/1948	103			
CP 00252	IND	40	VERSADO GAS PROCESSORS, LLC	CP 00252
21S 37E 22 4 2 4			13	674545 3592917
03/31/1949	106			
CP 00881	DOM	3	RICHARD DON JONES	CP 00881
Shallow 21S 37E 22 4 4 3			13	674352
3592515 09/04/1999	09/07/1999	95	53	

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 21S Range: 37E Sections: 22

NAD27 X: Y: Zone: Search Radius:

County: LE Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

POD / SURFACE DATA REPORT 08/29/2007

(acre ft per annum) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) X Y are in Feet

DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q	Zone	X	Y
CP 00251	IND	48	VERSADO GAS PROCESSORS LLC	CP 00251		21S	37E	22	4	3	2			
CP 00252	IND	40	VERSADO GAS PROCESSORS, LLC	CP 00252		21S	37E	22	4	2	4			
CP 00881	DOM	3	RICHARD DON JONES	CP 00881	Shallow	21S	37E	22	4	4	3			

Record Count: 3

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 21S Range: 37E Sections: 22

NAD27 X: Y: Zone: Search Radius:

County: LE Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 08/29/2007

								(Depth Water in Feet)		
Bsn	**Tws**	**Rng**	**Sec**	**Zone**	**X**	**Y**	**Wells**	**Min**	**Max**	**Avg**
CP	21S	37E	22				1	53	53	53

Record Count: 1

Appendix E C-141 Release Notification

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

RECEIVED
FEB 20 2008
HOBBS OCD

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	Plains Pipeline, LP	Contact	Daniel Bryant
Address	P.O. Box 3119 – Midland, TX 79702	Telephone No.	(432) 686-1769
Facility Name	Tract 5 4" Gathering	Facility Type	Pipeline

Surface Owner	Mineral Owner	Lease No.
Millard Deck Estate		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M (SW/SW)	22	21S	37E					Lea

Latitude N 32.45722220° **Longitude** W 103.15888890°

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 10 bbls	Volume Recovered 0 bbls
Source of Release 4" steel gathering line	Date and Hour of Occurrence 11/07/2006 10:00	Date and Hour of Discovery 11/07/2006 10:35
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Daniel Bryant	Date and Hour 11/08/2006 16:30	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

2.20.2008
HOBBS OCD

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
External corrosion caused a release of 10 bbls of crude oil on a 6" gathering pipeline. Line was clamped to mitigate the release until a pipeline replacement could be made.

Describe Area Affected and Cleanup Action Taken.*

Please see the Premier Environmental Services, Inc. Data Evaluation Closure Report dated February 2007 for details of the remedial activities conducted for soil closure at the site.

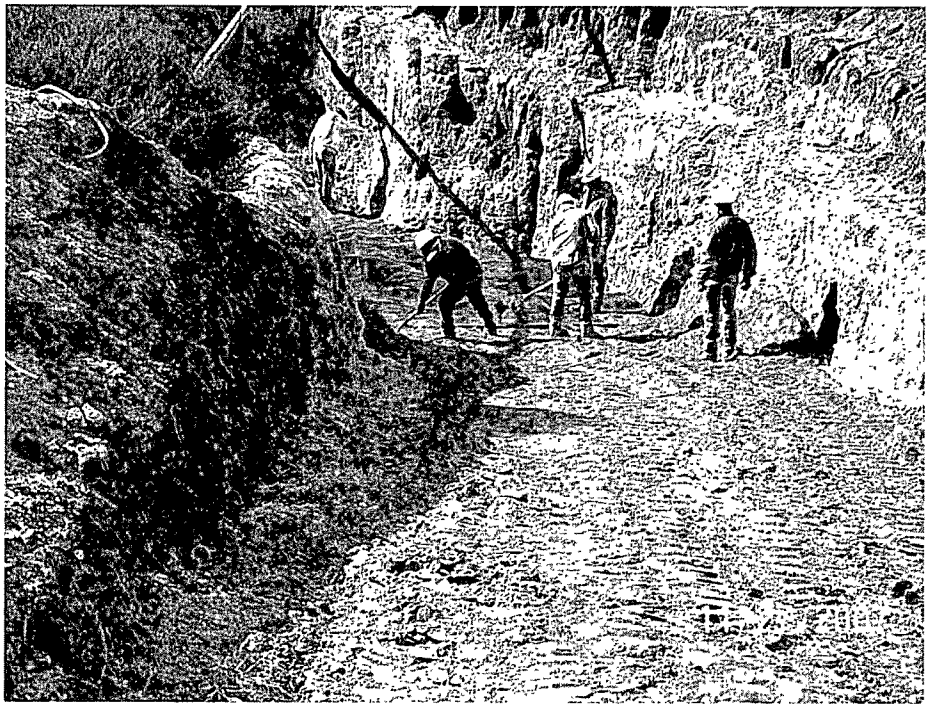
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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: Daniel Bryant	OIL CONSERVATION DIVISION
Printed Name: Daniel Bryant	Approved by District Supervisor: Chris Johnson
Title. Environmental R/C Specialist	ENVIRONMENTAL ENGINEER
E-mail Address: dmbryant@paalp.com	Approval Date: 2.20.08 Expiration Date: —
Date: 2/19/08 Phone: (432) 686-1769	Conditions of Approval: Attached ☐ IRP-#1124

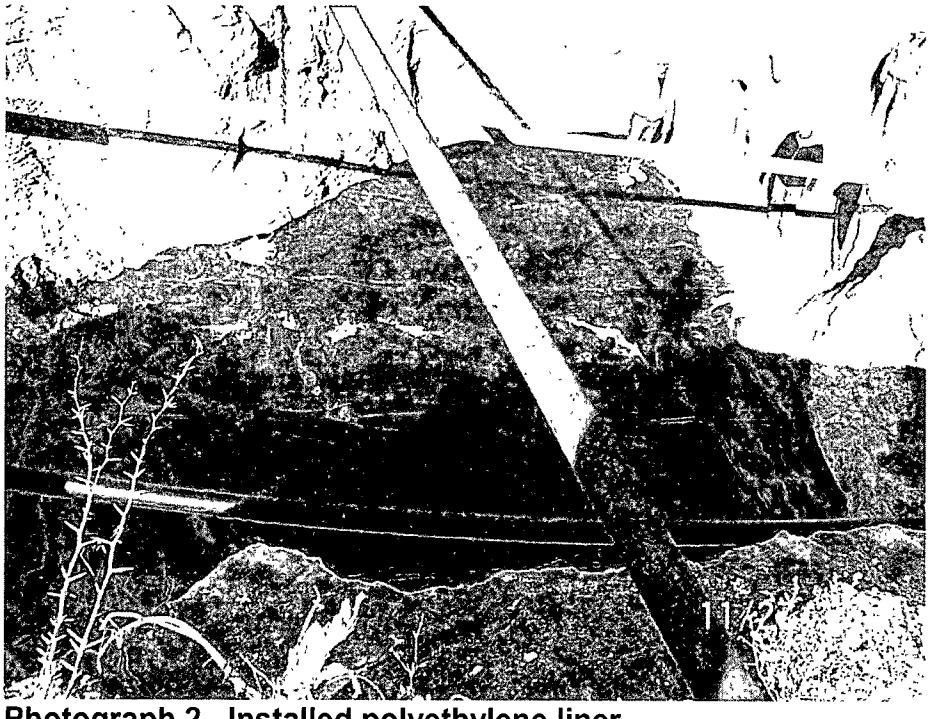
* Attach Additional Sheets If Necessary

fCOHD 805149261

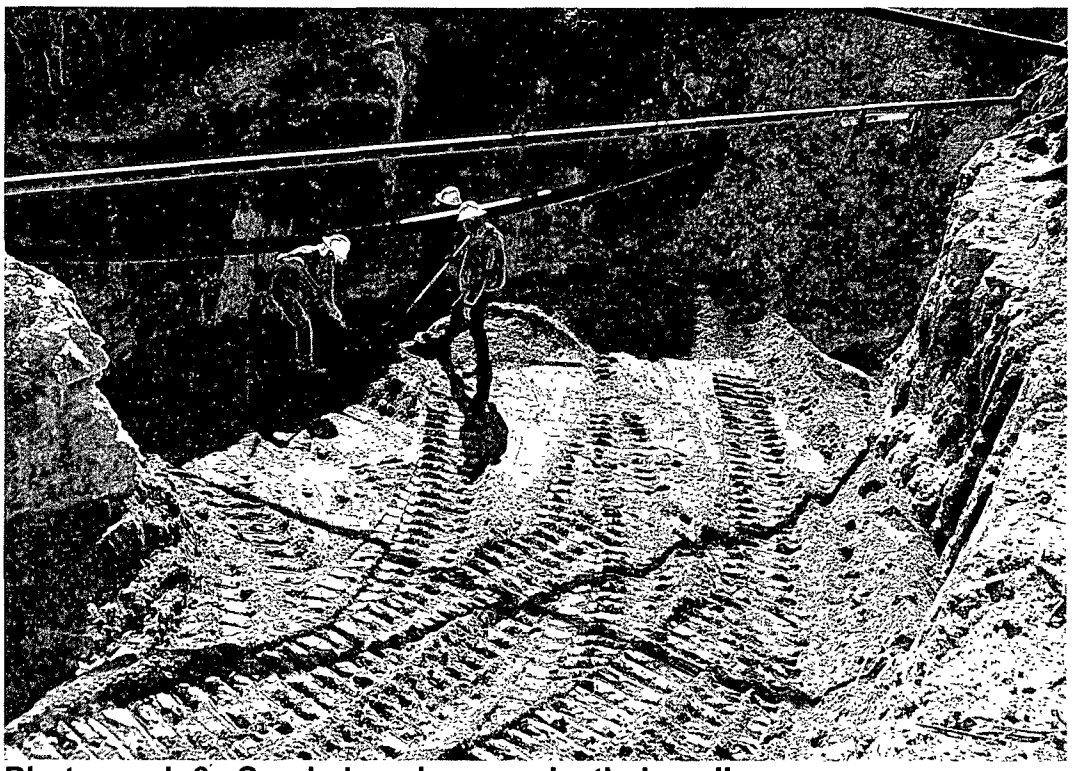
Appendix F Photographs



Photograph 1. Polyethylene liner placement.

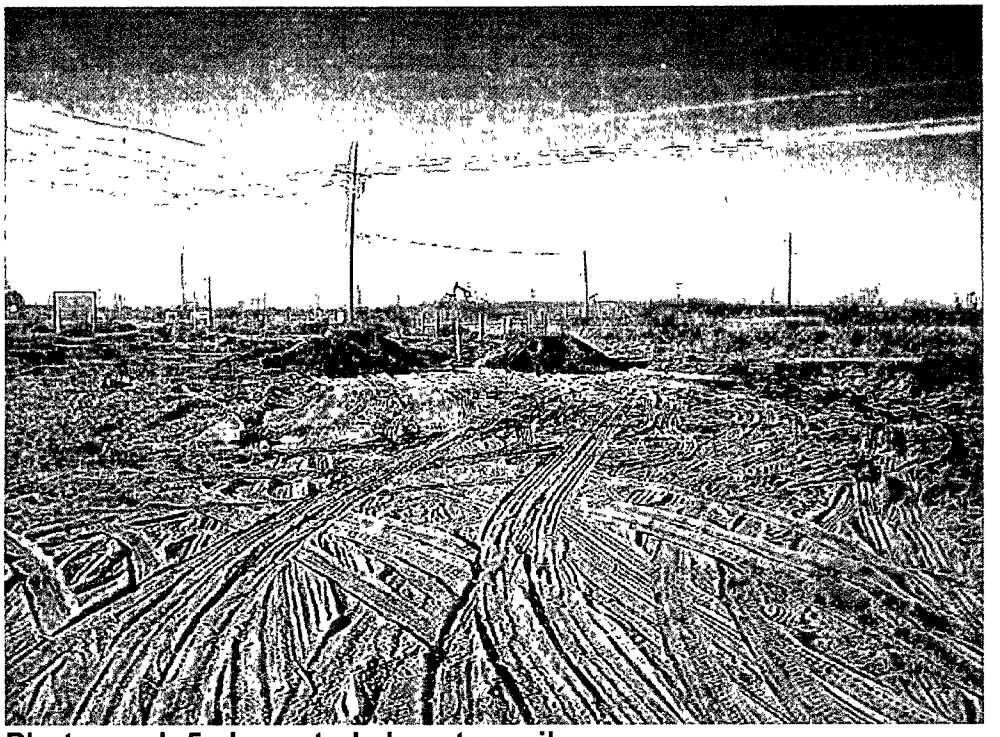


Photograph 2. Installed polyethylene liner.



Photograph 3. Sand placed over polyethylene liner.

Photograph 4. 8 inch diameter polyethylene pipeline with new metallic marking tape. 4 inch diameter steel pipeline showing wrapped welds.



Photograph 5. Imported clean topsoil.

Photograph 6. Graded site.