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**SOILS CLOSURE REPORT
E.K. QUEEN TRUNK
LEA COUNTY, NEW MEXICO
NMOCD REF. # RP-1167
SRS # 2007-024**

Section 19, Township 18 South, Range 34 East

Prepared for:

PLAINS PIPELINE, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002

Prepared by:

Talon/LPE
Marc Stroope
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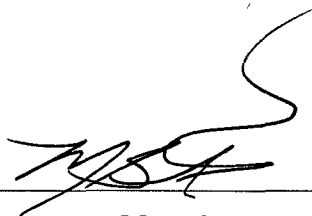
December 6, 2007

**E.K. Queen Trunk
Soils Closure Report**

**Plains Pipeline, L.P.
Houston, Texas**

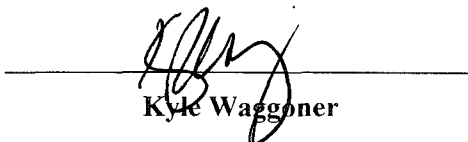
Talon/LPE PROJECT NO. PLAINS041SPL

Prepared by:

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**Marc Stroope
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December 2007

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NMOCD - New Mexico Oil Conservation Division
BLM – New Mexico Bureau of Land Management

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Location

Talon/LPE was retained by Plains Pipeline, L.P. (Plains) to conduct a soils investigation at the E.K. Queen Trunk crude oil pipeline release site in Lea County, New Mexico. The purpose of this investigation was to delineate and remediate hydrocarbon impacted soils at this location.

The E.K. Queen Trunk release site is located approximately 25 miles east of Loco Hills in Lea County, New Mexico. The GPS coordinates for the site are 32°43'44.1"N latitude and 103°36'01.3"W longitude. The release occurred on property owned by the United States Department of Interior Bureau of Land Management (BLM) and is utilized as pasture land. The site is located in a rural area with no residences or surface water within a 1,000 foot radius of the facility. A topographic map is provided as Figure 1 in Appendix A.

1.2 Site Background

In January 2007, a release of approximately ninety (90) barrels of crude oil occurred at the site due to internal corrosion of the pipeline, of which approximately seventy (70) barrels were recovered. Approximately sixteen thousand (16,000) square feet of surface area was impacted by the release. Based on excavation and over-excavation activities, approximately 2,800 cubic yards of soil were excavated and placed on a plastic liner.

1.3 Regulatory Framework

The NMOCD has developed guidance for all federal, state, and fee lands in New Mexico for remediating contaminants resulting from leaks, spills, and releases of oilfield wastes or products. This guidance assigns ranking scores to sites based on depth to groundwater, distance from water supply sources, and distance to surface water bodies, and provides remediation/clean-up targets for benzene, Total BTEX (benzene, toluene, ethylbenzene, and xylenes), and total petroleum hydrocarbons (TPH). Based on site visits, the E.K. Queen Trunk site is located in a rural area with no permanent residence or surface water within a 1,000 foot radius of the release point. According to information available from the New Mexico Office of the State Engineer, the nearest water well is not within 1000 feet of the site. Based on this groundwater elevation data, the approximate depth from land surface to groundwater at the site is 43 feet below ground surface (bgs).

According to NMOCD guidance, and based on depth to groundwater, distance from water supply sources, and distance to surface water bodies the site ranking for this site is twenty (20). The ranking process is summarized below:

<u>Criteria:</u>	<u>Site Condition:</u>	<u>Ranking Score:</u>
Depth to Groundwater	43 feet	20
<1,000 Feet to Water Source?	No	0
<200 Feet to Private Domestic Water Source?	No	0
Distance to Surface Water Body	>1,000 feet	0
Total Ranking:		20

Based on the calculated rating, the applicable remediation guidelines for this site are as follows:

Benzene	10 ppm
Total BTEX	50 ppm
TPH	100 ppm

2.0 FIELD ACTIVITIES

2.1 Soil Investigation Activities

Talon/LPE commenced excavation activities at the site in January 2007 in order to remove soil impacted above the NMOCD remedial threshold limits. Approximately 2,800 cubic yards of soil were excavated and placed on a plastic liner. The excavated area is approximately 225 feet long, 70 feet wide, and three feet in depth on average, and approximately fourteen feet in depth at the deepest excavation location (reference Figure 2).

2.2 Soil Sampling Activities

Upon the completion of excavation activities, grab samples were collected from the north sidewall (NW-1, NW-2, and NW-3) and the south sidewall (WW-1, WW-2, and WW-3) to document the successful removal of soil impacted above NMOCD remedial thresholds (reference Figure 2). In addition, grab samples were also collected from the middle wall (MW-1, MW-2, and MW-3) and bottom of the excavation (BH-1, BH-2, and BH-3) as referenced in Figure 2.

2.3 Over-Excavation Activities

On August 16, 2007, upon completion of the over-excavation activities, grab samples were taken from the over-excavation locations of NW-1A, NW-2A, NW-3A, EW-1, WW-1, MW-2A, MW-3A, BH-1A 6', BH-2A 6', BH-3A 14', BH-4 10' and BH-4 12' as referenced in Figure 2. The samples were taken upon over-excavating an additional five feet in depth, bringing the location excavation depth to fourteen feet at its deepest.

Subsequently, the excavation area containing the sample location for the sample BH-2A 6' was over-excavated again two feet in depth, bringing the sample location excavation depth to approximately eight feet. Based on excavation and over-excavation activities, approximately 2,800 cubic yards of soil were excavated and placed on a plastic liner. On September 26, 2007, upon completion of the over-excavation activities, a grab sample was taken from the over-excavation sample location of BH-2A 8' as referenced in Figure 2.

2.4 Analytical Procedures

The soil samples were placed in laboratory prepared glassware and sealed with custody tape. The samples were placed in coolers and relinquished to TraceAnalysis, Inc. in Midland, Texas for analysis. The soil samples were analyzed for BTEX using EPA method 8021B and TPH by EPA method 8015. The chain-of-custody forms and laboratory data sheets are provided in Appendix C.

2.5 Soil Sampling Results

Laboratory analyses of the samples collected on March 7, 2007 showed the sample locations of NW-1, NW-2, NW-3, MW-2, MW-3, BH-1, BH-2 and BH-3 to be above the NMOCD

Texas for analysis. The soil samples were analyzed for BTEX using EPA method 8021B and TPH by EPA method 8015. The chain-of-custody forms and laboratory data sheets are provided in Appendix C.

2.6 Soil Sampling Results – Over-Excavation

Laboratory analyses of each of the over-excavation samples collected on August 16, 2007 showed the samples locations other than BH-2A 6' (279 mg/Kg TPH) and BH-4 10' (116 mg/Kg TPH) to be below the NMOCD remedial thresholds (reference Table 1). The sample location for BH-4 was over-excavated to the depth of twelve feet, showing the sample excavation area to be below NMOCD remedial thresholds.

Laboratory analyses of the sample BH-2A 8' collected on September 26, 2007 showed the excavation area to be below the NMOCD remedial thresholds (reference Table 1).

2.7 Soil Remediation Activities

The excavation confirmation soil samples indicated TPH and Total BTEX concentrations below NMOCD remedial threshold limits for all sample locations. Due to TPH concentrations above the NMOCD remedial thresholds in the stockpiled soil, the stockpiled soil was transported to an NMOCD approved landfarm. Prior to transporting the stockpiled soil, the stockpiled soil was analyzed for chloride, RCI, TCLP RCRA 8 Metals, and TCLP VOC's. All laboratory analyses showed the stockpiled soil to be below threshold limits for acceptance at an NMOCD approved landfarm (reference Table 2).

2.8 Site Restoration Activities

Subsequent to soil remediation activities and verbal approval from Jim Amos with the BLM on October 31, 2007, the excavation site was backfilled with imported fill material from the Plains landfarm on November 1, 2007. A backhoe, bulldozer and loader were utilized to restore the site to natural grade. The entire backfilled site will be revegetated and seeded with a seed mix recommended by the BLM.

3.0 CONCLUSIONS

3.1 Recommendations

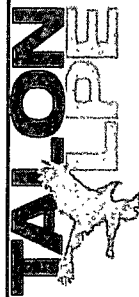
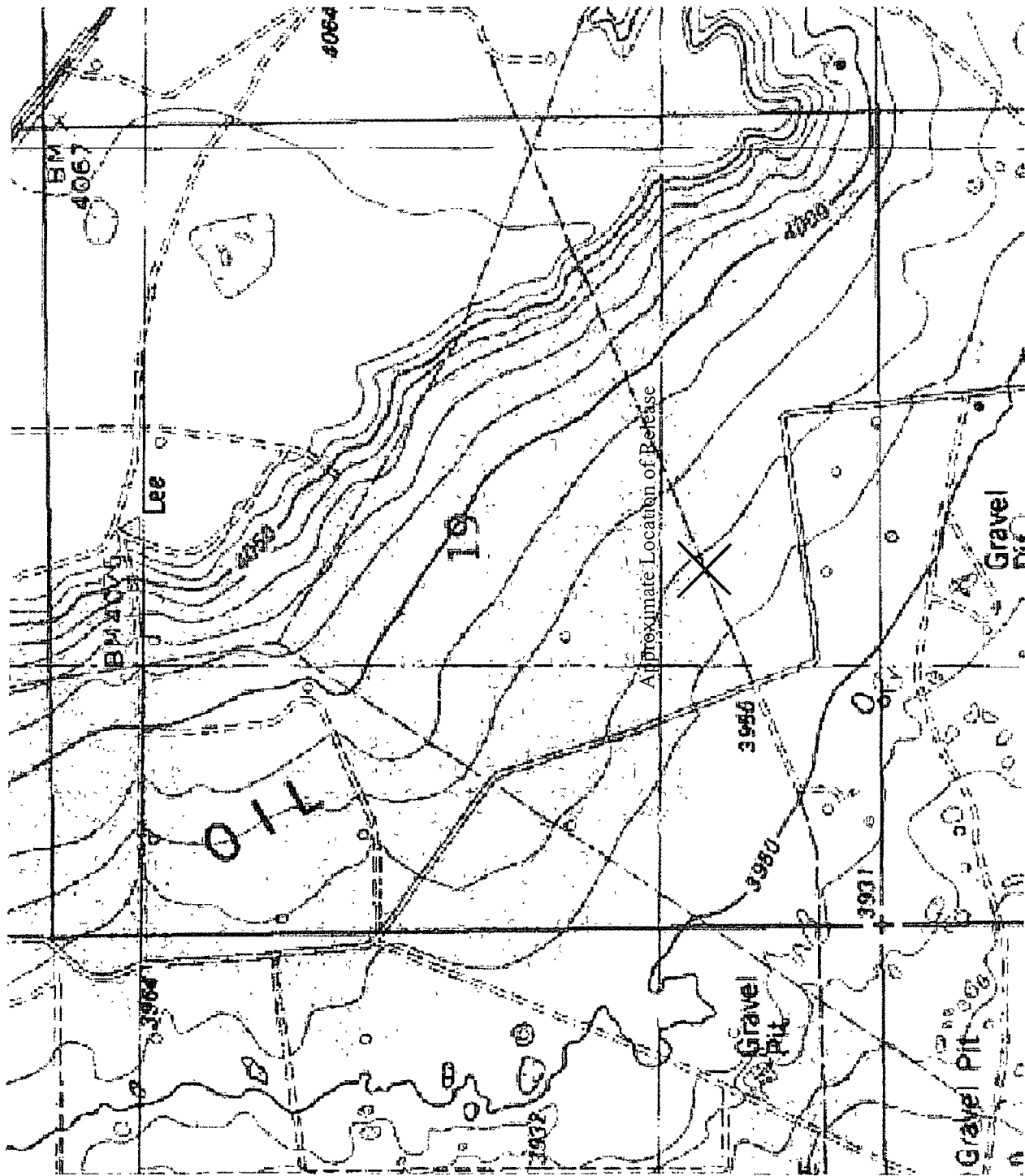
Based upon the findings of this investigation, Talon/LPE makes no further recommendations for future remediation activities in regard to this release. Talon/LPE proposes that this report be the final action in regards to the soil investigation and remediation activities at the site and recommends that Plains submit a copy of this report to the NMOCD. Furthermore, Talon/LPE requests that the NMOCD issue a letter to Plains requiring no further action in regard to this site.

Appendix A

Drawings

Figure 1 – Topographic Map

Figure 2 – Site Map With Confirmation Sampling Locations



Date: 05/07/2007

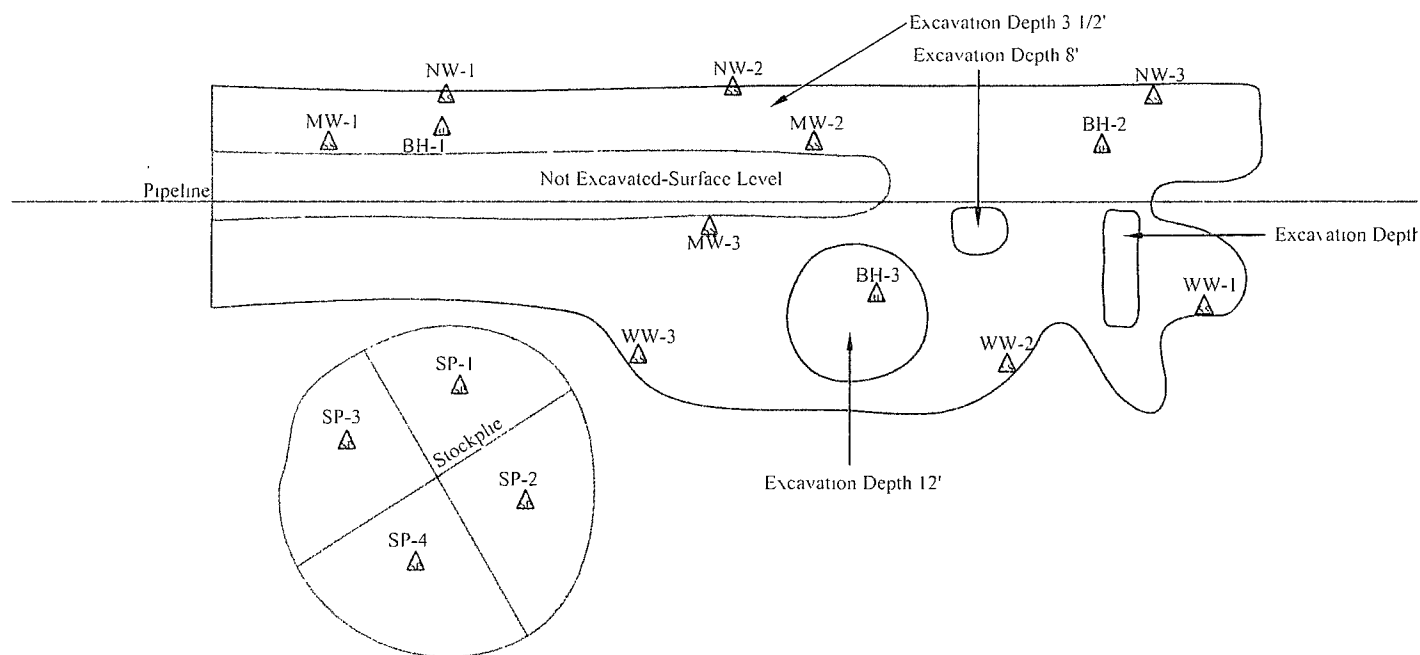
Scale: 1" = 1000'

Drawn By: WDR

E. K. Queen Trunk (PLAINS041SPL)

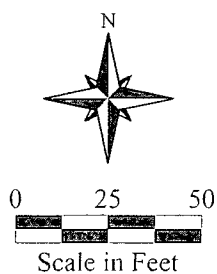
SRS # 2007-024
Lea County, New Mexico

Figure 1 - Topographic Map - Ironhouse Well - 1984



Legend

- △(WW) - South Wall Samples
- △(NW) - North Wall Samples
- △(MW) - Middle Wall Samples
- △(SP) - Stockpile Samples
- △(BH) - Bottom Hole Samples
- - Excavation Area
- - Surface Area



Date: 04/13/2007

Scale: 1" = 40'

Drawn By: WDR

E. K. Queen Trunk (PLAINS041SPL)

SRS # 2007-024

Lea County, New Mexico

Figure 2 - Site Map with Confirmation Sampling Locations

APPENDIX B

Tables

Table 1 – Summary of Soil Analytical Data

Table 2 – Summary of Stockpiled Soil Analytical Data for Disposal

Table 1
Summary of Soil Analytical Data
Plains Pipeline, L.P.
EK Queen 6" Trunk
Lea County, NM SRS# 2007-024
Talon/LPE Project Number PLAINS041SPL

Sample Designation	Date Sampled	Concentration								
		mg/Kg				mg/Kg				
		Status	DRO	GRO	Total TPH	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX
NW-1	03/07/07	Excavated			146	<0.00200	0.00544	0.00255	0.00541	0.03635
NW-2	03/07/07	Excavated			183	0.00583	0.0171	0.0123	0.0334	0.06863
NW-3	03/07/07	Excavated			169	<0.00200	0.00266	0.00489	0.01099	0.01854
MW-1	03/07/07				47.6	<0.00200	0.00234	0.00339	0.00919	0.01492
MW-2	03/07/07	Excavated			270	<0.00200	0.00362	<0.00200	0.00499	0.00861
MW-3	03/07/07	Excavated			268	0.00442	0.0231	0.0171	0.03058	0.07520
WW-1	03/07/07				78.9	0.00448	0.0357	0.0377	0.0606	0.13848
WW-2	03/07/07				24.9	<0.00200	0.00508	0.00273	0.00663	0.01444
WW-3	03/07/07				11.3	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
BH-1	03/07/07	Excavated			612	<0.00200	0.00336	0.0162	0.0339	0.05346
BH-2	03/07/07	Excavated			806	<0.00200	0.00231	0.00647	0.01834	0.02712
BH-3	03/07/07	Excavated			372	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
SP-1	03/07/07				13,500	1.38	34.1	28.5	57.0	120.98
SP-2	03/07/07				21,600	6.54	45.7	47.8	84.7	184.74
SP-3	03/07/07				18,000	6.50	112	107	175.5	401
SP-4	03/07/07				6,800	1.23	16.8	19.0	33.48	70.51
NW-1A	08/16/07	Excavated	<50.0	<1.0	<50.0					
NW-2A	08/16/07	Excavated	<50.0	<1.0	<50.0					
NW-3A	08/16/07	Excavated	<50.0	<1.0	<50.0					
EW-1	08/16/07	Excavated	57.8	<1.0	57.8	<0.01	<0.01	<0.01	<0.01	<0.01
WW-1	08/16/07	Excavated	<50.0	<1.0	<50.0	<0.01	<0.01	<0.01	<0.01	<0.01
MW-2A	08/16/07	Excavated	<50.0	3.35	<50.0					
MW-3A	08/16/07	Excavated	<50.0	<1.0	<50.0					
BH-1A 6'	08/16/07	Excavated	<50.0	<1.0	<50.0					
BH-2A 6'	08/16/07	Excavated	279	2.71	282					
BH-3A 14'	08/16/07	Excavated	<50.0	<1.0	<50.0					
BH-4 10'	08/16/07	Excavated	116	22.2	138	<0.01	<0.01	<0.01	<0.01	<0.01
BH-4 12'	08/16/07	Excavated	<50.0	<1.0	<50.0					
BH-2A 8'	09/26/07	Excavated	<50.0	26.1	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
NMOCD Remediation Guidelines					100	10				50

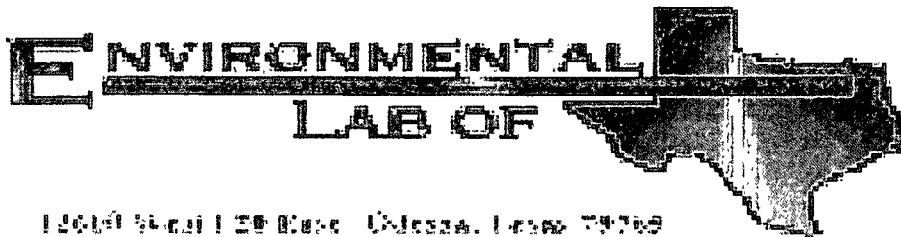
Bolded values are in excess of the NMOCD Remediation Thresholds

Table 2
Summary of Stockpiled Soil Analytical Data for Disposal
Plains Pipeline, L.P.
EK Queen 6" Trunk
Lea County, NM SRS# 2007-024
Talon/LPE Project Number PLAINS041SPL

Sample	Parameter	Result	Units
SP-1	Chloride	10 6	mg/Kg
SP-1	Reactivity	non-reactive	
SP-1	Hydrogen Sulfide	<10 0	mg/Kg
SP-1	Hydrogen Cyanide	<2 50	mg/Kg
SP-1	Corrosivity	non-corrosive	mm/yr
SP-1	pH	8 1	s u
SP-1	Ignitability	non-ignitable	
SP-1	TCLP Silver	<0 125	mg/L
SP-1	TCLP Arsenic	<0 100	mg/L
SP-1	TCLP Barium	1 33	mg/L
SP-1	TCLP Cadmium	<0 0500	mg/L
SP-1	TCLP Chromium	<0 100	mg/L
SP-1	TCLP Mercury	<0 000500	mg/L
SP-1	TCLP Lead	<0 100	mg/L
SP-1	TCLP Selenium	<0 500	mg/L
SP-1	Vinyl Chloride	<0 0500	mg/L
SP-1	1,1-Dichloroethene	<0 0500	mg/L
SP-1	2-Butanone (MEK)	<0 500	mg/L
SP-1	Chloroform	<0 0500	mg/L
SP-1	1,2-Dichloroethane (EDC)	<0 0500	mg/L
SP-1	Benzene	<0 0500	mg/L
SP-1	Carbon Tetrachloride	<0 0500	mg/L
SP-1	Trichloroethene (TCE)	<0 0500	mg/L
SP-1	Tetrachloroethene (PCE)	<0 0500	mg/L
SP-1	Chlorobenzene	<0 0500	mg/L
SP-1	1,4-Dichlorobenzene (para)	<0 0500	mg/L

APPENDIX C

Laboratory Analytical Data Sheets and Chain of Custody Documentation



A Xenco Laboratories Company

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: 101 Line to Judkins

Project Number: EMS# 2006-026

Location: Lea County New Mexico

Lab Order Number: 7C09003

Report Date: 03/14/07

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

Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

Fax (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NW-1	7C09003-01	Soil	03/07/07 14 50	03-08-2007 17 30
NW-2	7C09003-02	Soil	03/07/07 14 56	03-08-2007 17 30
NW-3	7C09003-03	Soil	03/07/07 15 09	03-08-2007 17 30
MW-1	7C09003-04	Soil	03/07/07 15 17	03-08-2007 17 30
MW-2	7C09003-05	Soil	03/07/07 15 24	03-08-2007 17 30
MW-3	7C09003-06	Soil	03/07/07 15 31	03-08-2007 17 30
WW-1	7C09003-07	Soil	03/07/07 15 40	03-08-2007 17 30
WW-2	7C09003-08	Soil	03/07/07 15 46	03-08-2007 17 30
WW-3	7C09003-09	Soil	03/07/07 15 55	03-08-2007 17 30
BH-1	7C09003-10	Soil	03/07/07 16 10	03-08-2007 17 30
BH-2	7C09003-11	Soil	03/07/07 16 21	03-08-2007 17 30
BH-3	7C09003-12	Soil	03/07/07 16 26	03-08-2007 17 30
SP_1	7C09003-13	Soil	03/07/07 16 40	03-08-2007 17 30
SP-2	7C09003-14	Soil	03/07/07 16 50	03-08-2007 17 30
SP_3	7C09003-15	Soil	03/07/07 17 03	03-08-2007 17 30
SP-4	7C09003-16	Soil	03/07/07 17 18	03-08-2007 17 30

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

Project 101 Line to Judkins
Project Number EMS# 2006-026
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
NW-1 (7C09003-01) Soil									
Benzene	J [0.00172]	0.00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	I
Toluene	0.00544	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.00255	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.00247	0.00200	"	"	"	"	"	"	
Xylene (o)	0.00294	0.00200	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		85.0 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		93.8 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	J [5.29]	10.0	mg/kg dry	1	EC70809	03/08/07	03/09/07	EPA 8015M	J
Carbon Ranges C12-C28	131	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	15.0	10.0	"	"	"	"	"	"	
Total Hydrocarbons	146	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		103 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		128 %	70-130		"	"	"	"	
NW-2 (7C09003-02) Soil									
Benzene	0.00583	0.00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	
Toluene	0.0171	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.0123	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.0224	0.00200	"	"	"	"	"	"	
Xylene (o)	0.0110	0.00200	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		88.6 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		87.6 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	10.4	10.0	mg/kg dry	1	EC70809	03/08/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	157	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	15.5	10.0	"	"	"	"	"	"	
Total Hydrocarbons	183	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		103 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		129 %	70-130		"	"	"	"	
NW-3 (7C09003-03) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	
Toluene	0.00266	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.00489	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.00645	0.00200	"	"	"	"	"	"	
Xylene (o)	0.00454	0.00200	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		82.8 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		87.4 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	J [8.35]	10.0	mg/kg dry	1	EC70809	03/08/07	03/10/07	EPA 8015M	J

Environmental Lab of Texas

A Xenco Laboratories Company

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

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Midland TX, 79706-4476

Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NW-3 (7C09003-03) Soil									
Carbon Ranges C12-C28	147	10 0	mg/kg dry	1	EC70809	03/08/07	03/10/07	EPA 8015M	
Carbon Ranges C28-C35	22.2	10 0	"	"	"	"	"	"	
Total Hydrocarbons	169	10 0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		100 %	70-130		"	"	"	"	
<i>Surrogate 1-Chlorooctadecane</i>		126 %	70-130		"	"	"	"	
MW-1 (7C09003-04) Soil									
Benzene	ND	0 00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	
Toluene	0.00234	0 00200	"	"	"	"	"	"	
Ethylbenzene	0.00339	0 00200	"	"	"	"	"	"	
Xylene (p/m)	0.00512	0 00200	"	"	"	"	"	"	
Xylene (o)	0.00407	0 00200	"	"	"	"	"	"	
<i>Surrogate a,a-Trifluorotoluene</i>		85 6 %	75-125		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		89 2 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	12.9	10 0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	34.7	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [3.94]	10 0	"	"	"	"	"	"	I
Total Hydrocarbons	47.6	10 0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		107 %	70-130		"	"	"	"	
<i>Surrogate 1-Chlorooctadecane</i>		126 %	70-130		"	"	"	"	
MW-2 (7C09003-05) Soil									
Benzene	I [0.000902]	0 00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	I
Toluene	0.00362	0 00200	"	"	"	"	"	"	
Ethylbenzene	J [0.00161]	0 00200	"	"	"	"	"	"	J
Xylene (p/m)	0.00207	0 00200	"	"	"	"	"	"	
Xylene (o)	0.00292	0 00200	"	"	"	"	"	"	
<i>Surrogate a,a-Trifluorotoluene</i>		81 2 %	75-125		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		83 2 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	J [6.88]	10 0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	J
Carbon Ranges C12-C28	244	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	26.4	10 0	"	"	"	"	"	"	
Total Hydrocarbons	270	10 0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		105 %	70-130		"	"	"	"	
<i>Surrogate 1-Chlorooctadecane</i>		126 %	70-130		"	"	"	"	

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Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (7C09003-06) Soil									
Benzene	0.00442	0.00200	mg/kg dry	2	EC70902	03/09/07	03/09/07	EPA 8021B	
Toluene	0.0231	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.0171	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.0215	0.00200	"	"	"	"	"	"	
Xylene (o)	0.00908	0.00200	"	"	"	"	"	"	
Surrogate a,a-Trifluorotoluene		88.0 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		87.8 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	J [9.98]	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	1
Carbon Ranges C12-C28	232	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	36.2	10.0	"	"	"	"	"	"	
Total Hydrocarbons	268	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		103 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		128 %	70-130		"	"	"	"	
WW-1 (7C09003-07) Soil									
Benzene	0.00448	0.00200	mg/kg dry	2	EC70902	03/09/07	03/12/07	EPA 8021B	
Toluene	0.0357	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.0377	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.0424	0.00200	"	"	"	"	"	"	
Xylene (o)	0.0182	0.00200	"	"	"	"	"	"	
Surrogate a,a-Trifluorotoluene		76.6 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		90.6 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	14.0	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	53.5	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	11.4	10.0	"	"	"	"	"	"	
Total Hydrocarbons	78.9	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		103 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		125 %	70-130		"	"	"	"	
WW-2 (7C09003-08) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC70902	03/09/07	03/12/07	EPA 8021B	
Toluene	0.00508	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.00273	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.00344	0.00200	"	"	"	"	"	"	
Xylene (o)	0.00319	0.00200	"	"	"	"	"	"	
Surrogate a,a-Trifluorotoluene		77.8 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		84.4 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	

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Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WW-2 (7C09003-08) Soil									
Carbon Ranges C12-C28	24.9	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	24.9	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		101 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		122 %	70-130		"	"	"	"	
WW-3 (7C09003-09) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC70902	03/09/07	03/12/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate a,a-Trifluorotoluene		70.4 %	75-125		"	"	"	"	S-DUP
Surrogate 4-Bromofluorobenzene		85.2 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	11.3	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	11.3	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		106 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		127 %	70-130		"	"	"	"	
BH-1 (7C09003-10) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	0.00336	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.0162	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.0220	0.00200	"	"	"	"	"	"	
Xylene (o)	0.0119	0.00200	"	"	"	"	"	"	
Surrogate a,a-Trifluorotoluene		66.6 %	75-125		"	"	"	"	S-04
Surrogate 4-Bromofluorobenzene		82.2 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	21.2	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	531	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	59.4	10.0	"	"	"	"	"	"	
Total Hydrocarbons	612	10.0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		110 %	70-130		"	"	"	"	
Surrogate 1-Chlorooctadecane		133 %	70-130		"	"	"	"	S-04

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-2 (7C09003-11) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	0.00231	0.00200	"	"	"	"	"	"	
Ethylbenzene	0.00647	0.00200	"	"	"	"	"	"	
Xylene (p/m)	0.0110	0.00200	"	"	"	"	"	"	
Xylene (o)	0.00734	0.00200	"	"	"	"	"	"	
Surrogate, a,a,a-Trifluorotoluene		64.6 %	75-125		"	"	"	"	S-04
Surrogate, 4-Bromofluorobenzene		80.8 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	50.9	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	686	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	68.6	10.0	"	"	"	"	"	"	
Total Hydrocarbons	806	10.0	"	"	"	"	"	"	
Surrogate, 1-Chlorooctane		117 %	70-130		"	"	"	"	
Surrogate, 1-Chlorooctadecane		140 %	70-130		"	"	"	"	S-04
BH-3 (7C09003-12) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
Surrogate, a,a,a-Trifluorotoluene		71.2 %	75-125		"	"	"	"	S-04
Surrogate, 4-Bromofluorobenzene		80.0 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	J [7.68]	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	I
Carbon Ranges C12-C28	332	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	40.3	10.0	"	"	"	"	"	"	
Total Hydrocarbons	372	10.0	"	"	"	"	"	"	
Surrogate, 1-Chlorooctane		109 %	70-130		"	"	"	"	
Surrogate, 1-Chlorooctadecane		132 %	70-130		"	"	"	"	S-04
SP_1 (7C09003-13) Soil									
Benzene	1.38	0.200	mg/kg dry	200	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	34.1	0.200	"	"	"	"	"	"	
Ethylbenzene	28.5	0.200	"	"	"	"	"	"	
Xylene (p/m)	40.4	0.200	"	"	"	"	"	"	
Xylene (o)	16.6	0.200	"	"	"	"	"	"	
Surrogate, a,a,a-Trifluorotoluene		104 %	75-125		"	"	"	"	
Surrogate, 4-Bromofluorobenzene		91.4 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	3750	50.0	mg/kg dry	5	EC70901	03/09/07	03/10/07	EPA 8015M	

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Project 101 Line to Judkins
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Project Manager Camille Reynolds

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP_1 (7C09003-13) Soil									
Carbon Ranges C12-C28	9040	50 0	mg/kg dry	5	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C28-C35	680	50 0	"	"	"	"	"	"	
Total Hydrocarbons	13500	50 0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		44.2 %	70-130		"	"	"	"	S-06
Surrogate 1-Chlorooctadecane		51.4 %	70-130		"	"	"	"	S-06
SP-2 (7C09003-14) Soil									
Benzene	6.54	0.400	mg/kg dry	400	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	45.7	0.400	"	"	"	"	"	"	
Ethylbenzene	47.8	0.400	"	"	"	"	"	"	
Xylene (p/m)	60.2	0.400	"	"	"	"	"	"	
Xylene (o)	24.5	0.400	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		93.4 %	75-125		"	"	"	"	
Surrogate 4-Bromofluorobenzene		116 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	6150	50 0	mg/kg dry	5	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	14500	50 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	903	50 0	"	"	"	"	"	"	
Total Hydrocarbons	21600	50 0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		58.6 %	70-130		"	"	"	"	S-06
Surrogate 1-Chlorooctadecane		66.4 %	70-130		"	"	"	"	S-06
SP_3 (7C09003-15) Soil									
Benzene	6.50	0.400	mg/kg dry	400	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	112	0.400	"	"	"	"	"	"	
Ethylbenzene	107	0.400	"	"	"	"	"	"	
Xylene (p/m)	127	0.400	"	"	"	"	"	"	
Xylene (o)	48.5	0.400	"	"	"	"	"	"	
Surrogate a,a,a-Trifluorotoluene		126 %	75-125		"	"	"	"	S-04
Surrogate 4-Bromofluorobenzene		124 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	6860	50 0	mg/kg dry	5	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	10400	50 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	705	50 0	"	"	"	"	"	"	
Total Hydrocarbons	18000	50 0	"	"	"	"	"	"	
Surrogate 1-Chlorooctane		55.4 %	70-130		"	"	"	"	S-06
Surrogate 1-Chlorooctadecane		55.2 %	70-130		"	"	"	"	S-06

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Organics by GC
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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-4 (7C09003-16) Soil									
Benzene	1.23	0.200	mg/kg dry	200	EC71207	03/12/07	03/12/07	EPA 8021B	
Toluene	16.8	0.200	"	"	"	"	"	"	
Ethylbenzene	19.0	0.200	"	"	"	"	"	"	
Xylene (p/m)	24.3	0.200	"	"	"	"	"	"	
Xylene (o)	9.18	0.200	"	"	"	"	"	"	
<i>Surrogate a,a-Trifluorotoluene</i>		88.6 %	75-125		"	"	"	"	
<i>Surrogate 4-Bromofluorobenzene</i>		106 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	2140	10.0	mg/kg dry	1	EC70901	03/09/07	03/10/07	EPA 8015M	
Carbon Ranges C12-C28	4510	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	176	10.0	"	"	"	"	"	"	
Total Hydrocarbons	6830	10.0	"	"	"	"	"	"	
<i>Surrogate 1-Chlorooctane</i>		185 %	70-130		"	"	"	"	S-04
<i>Surrogate 1-Chlorooctadecane</i>		197 %	70-130		"	"	"	"	S-04

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Project 101 Line to Judkins
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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NW-1 (7C09003-01) Soil									
% Moisture	ND	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
NW-2 (7C09003-02) Soil									
% Moisture	ND	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
NW-3 (7C09003-03) Soil									
% Moisture	0.1	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
MW-1 (7C09003-04) Soil									
% Moisture	1.0	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
MW-2 (7C09003-05) Soil									
% Moisture	ND	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
MW-3 (7C09003-06) Soil									
% Moisture	1.4	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
WW-1 (7C09003-07) Soil									
% Moisture	0.2	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
WW-2 (7C09003-08) Soil									
% Moisture	0.2	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
WW-3 (7C09003-09) Soil									
% Moisture	0.1	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
BH-1 (7C09003-10) Soil									
% Moisture	2.0	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
BH-2 (7C09003-11) Soil									
% Moisture	1.4	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BH-3 (7C09003-12) Soil									
% Moisture	1.2	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
SP_1 (7C09003-13) Soil									
% Moisture	8.2	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
SP-2 (7C09003-14) Soil									
% Moisture	8.4	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
SP_3 (7C09003-15) Soil									
% Moisture	7.1	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	
SP-4 (7C09003-16) Soil									
% Moisture	3.9	0.1	%	1	EC71206	03/09/07	03/12/07	% calculation	

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

Project 101 Line to Judkins
Project Number EMS# 2006-026
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
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Batch EC70809 - Solvent Extraction (GC)

Blank (EC70809-BLK1)

Prepared 03/08/07 Analyzed 03/12/07

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	52.8		mg/kg	50.0		106	70-130			
Surrogate 1-Chlorooctadecane	62.1		"	50.0		124	70-130			

LCS (EC70809-BS1)

Prepared 03/08/07 Analyzed 03/09/07

Carbon Ranges C6-C12	561	10.0	mg/kg wet	500		112	75-125			
Carbon Ranges C12-C28	487	10.0	"	500		97.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1050	10.0	"	1000		105	75-125			
Surrogate 1-Chlorooctane	57.5		mg/kg	50.0		115	70-130			
Surrogate 1-Chlorooctadecane	62.2		"	50.0		124	70-130			

Calibration Check (EC70809-CCV1)

Prepared 03/08/07 Analyzed 03/13/07

Carbon Ranges C6-C12	222		mg/kg	250		88.8	80-120			
Carbon Ranges C12-C28	235		"	250		94.0	80-120			
Total Hydrocarbons	456		"	500		91.2	80-120			
Surrogate 1-Chlorooctane	54.2		"	50.0		108	70-130			
Surrogate 1-Chlorooctadecane	53.4		"	50.0		107	70-130			

Matrix Spike (EC70809-MS1)

Source: 7C08006-11

Prepared 03/08/07 Analyzed 03/10/07

Carbon Ranges C6-C12	643	10.0	mg/kg dry	534	ND	120	75-125			
Carbon Ranges C12-C28	533	10.0	"	534	ND	99.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1180	10.0	"	1070	ND	110	75-125			
Surrogate 1-Chlorooctane	64.9		mg/kg	50.0		130	70-130			
Surrogate 1-Chlorooctadecane	65.0		"	50.0		130	70-130			

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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 EC70809 - Solvent Extraction (GC)

Matrix Spike Dup (EC70809-MSD1)

Source: 7C08006-11

Prepared 03/08/07 Analyzed 03/10/07

Carbon Ranges C6-C12	642	10 0	mg/kg dry	534	ND	120	75-125	0 00	20	
Carbon Ranges C12-C28	535	10 0	"	534	ND	100	75-125	0 200	20	
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125		20	
Total Hydrocarbons	1180	10 0	"	1070	ND	110	75-125	0 00	20	
Surrogate 1-Chlorooctane	64 6		mg/kg	50 0		129	70-130			
Surrogate 1-Chlorooctadecane	64 9		"	50 0		130	70-130			

Batch EC70901 - Solvent Extraction (GC)

Blank (EC70901-BLK1)

Prepared 03/09/07 Analyzed 03/12/07

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	52 8		mg/kg	50 0		106	70-130			
Surrogate 1-Chlorooctadecane	62 2		"	50 0		124	70-130			

LCS (EC70901-BS1)

Prepared 03/09/07 Analyzed 03/10/07

Carbon Ranges C6-C12	561	10 0	mg/kg wet	500		112	75-125			
Carbon Ranges C12-C28	496	10 0	"	500		99 2	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00			75-125			
Total Hydrocarbons	1060	10 0	"	1000		106	75-125			
Surrogate 1-Chlorooctane	63 1		mg/kg	50 0		126	70-130			
Surrogate 1-Chlorooctadecane	64 2		"	50 0		128	70-130			

Calibration Check (EC70901-CCV1)

Prepared 03/09/07 Analyzed 03/13/07

Carbon Ranges C6-C12	235		mg/kg	250		94 0	80-120			
Carbon Ranges C12-C28	275		"	250		110	80-120			
Total Hydrocarbons	510		"	500		102	80-120			
Surrogate 1-Chlorooctane	54 9		"	50 0		110	70-130			
Surrogate 1-Chlorooctadecane	55 9		"	50 0		112	70-130			

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Project 101 Line to Iudkins
Project Number EMS# 2006-026
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
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Batch EC70901 - Solvent Extraction (GC)

Matrix Spike (EC70901-MS1)		Source: 7C09003-09		Prepared 03/09/07		Analyzed 03/13/07	
Carbon Ranges C6-C12	544	10 0	mg/kg dry	501	ND	109	75-125
Carbon Ranges C12-C28	485	10 0	"	501	11 3	94 6	75-125
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125
Total Hydrocarbons	1030	10 0	"	1000	11 3	102	75-125
Surrogate 1-Chlorooctane	54 8		mg/kg	50 0		110	70-130
Surrogate 1-Chlorooctadecane	55 2		"	50 0		110	70-130

Matrix Spike Dup (EC70901-MSD1)	Source: 7C09003-09			Prepared 03/09/07	Analyzed 03/10/07				
Carbon Ranges C6-C12	554	10 0	mg/kg dry	501	ND	111	75-125	1 82	20
Carbon Ranges C12-C28	484	10 0	"	501	11 3	94 4	75-125	0 212	20
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125		20
Total Hydrocarbons	1040	10 0	"	1000	11 3	103	75-125	0 976	20
Surrogate 1-Chlorooctane	64 1		mg/kg	50 0		128	70-130		
Surrogate 1-Chlorooctadecane	64 6		"	50 0		129	70-130		

Batch EC70902 - EPA 5030C (GC)

Blank (EC70902-BLK1)		Prepared & Analyzed 03/09/07	
Benzene	ND	0 00100	mg/kg wet
Toluene	ND	0 00100	"
Ethylbenzene	ND	0 00100	"
Xylene (p/m)	ND	0 00100	"
Xylene (o)	ND	0 00100	"
Surrogate a,a,a-Trifluorotoluene	51 5		ug/kg
Surrogate 4-Bromofluorobenzene	52 1		"

LCS (EC70902-BS1)		Prepared & Analyzed 03/09/07	
Benzene	0 0518	0 00100	mg/kg wet
Toluene	0 0481	0 00100	"
Ethylbenzene	0 0501	0 00100	"
Xylene (p/m)	0 0933	0 00100	"
Xylene (o)	0 0442	0 00100	"
Surrogate a,a,a-Trifluorotoluene	49 2		ug/kg
Surrogate 4-Bromofluorobenzene	56 0		"

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Project 101 Line to Judkins
Project Number EMS# 2006-026
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
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Batch EC70902 - EPA 5030C (GC)

Calibration Check (EC70902-CCV1)

Prepared & Analyzed 03/09/07

Benzene	53.8		ug/kg	50.0		108	80-120			
Toluene	47.2		"	50.0		94.4	80-120			
Ethylbenzene	46.0		"	50.0		92.0	80-120			
Xylene (p/m)	88.1		"	100		88.1	80-120			
Xylene (o)	41.5		"	50.0		83.0	80-120			
Surrogate a,a,a-Trifluorotoluene	50.4		"	50.0		101	75-125			
Surrogate 4-Bromofluorobenzene	53.1		"	50.0		106	75-125			

Matrix Spike (EC70902-MS1)

Source: 7C09001-04

Prepared & Analyzed 03/09/07

Benzene	0.0993	0.00200	mg/kg dry	0.107	0.00113	91.7	80-120			
Toluene	0.0971	0.00200	"	0.107	0.00279	88.1	80-120			
Ethylbenzene	0.0947	0.00200	"	0.107	0.00341	85.3	80-120			
Xylene (p/m)	0.193	0.00200	"	0.214	0.0119	84.6	80-120			
Xylene (o)	0.0989	0.00200	"	0.107	0.00706	85.8	80-120			
Surrogate a,a,a-Trifluorotoluene	40.5		ug/kg	50.0		81.0	75-125			
Surrogate 4-Bromofluorobenzene	43.8		"	50.0		87.6	75-125			

Matrix Spike Dup (EC70902-MSD1)

Source: 7C09001-04

Prepared & Analyzed 03/09/07

Benzene	0.0961	0.00200	mg/kg dry	0.107	0.00113	88.8	80-120	3.21	20	
Toluene	0.0926	0.00200	"	0.107	0.00279	83.9	80-120	4.88	20	
Ethylbenzene	0.0953	0.00200	"	0.107	0.00341	85.9	80-120	0.701	20	
Xylene (p/m)	0.188	0.00200	"	0.214	0.0119	82.3	80-120	2.76	20	
Xylene (o)	0.0943	0.00200	"	0.107	0.00706	81.5	80-120	5.14	20	
Surrogate a,a,a-Trifluorotoluene	42.8		ug/kg	50.0		85.6	75-125			
Surrogate 4-Bromofluorobenzene	43.9		"	50.0		87.8	75-125			

Batch EC71207 - EPA 5030C (GC)

Blank (EC71207-BLK1)

Prepared & Analyzed 03/12/07

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate a,a,a-Trifluorotoluene	43.2		ug/kg	50.0		86.4	75-125			
Surrogate 4-Bromofluorobenzene	44.6		"	50.0		89.2	75-125			

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Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC71207 - EPA 5030C (GC)

LCS (EC71207-BS1)

Prepared & Analyzed 03/12/07

Benzene	0.0431	0.00100	mg/kg wet	0.0500		86.2	80-120			
Toluene	0.0412	0.00100	"	0.0500		82.4	80-120			
Ethylbenzene	0.0421	0.00100	"	0.0500		84.2	80-120			
Xylene (p/m)	0.0859	0.00100	"	0.100		85.9	80-120			
Xylene (o)	0.0406	0.00100	"	0.0500		81.2	80-120			
Surrogate a,a,a-Trifluorotoluene	41.9		ug/kg	50.0		83.8	75-125			
Surrogate 4-Bromofluorobenzene	47.1		"	50.0		94.2	75-125			

Calibration Check (EC71207-CCV1)

Prepared 03/12/07 Analyzed 03/13/07

Benzene	46.3		ug/kg	50.0		92.6	80-120			
Toluene	41.2		"	50.0		82.4	80-120			
Ethylbenzene	42.2		"	50.0		84.4	80-120			
Xylene (p/m)	85.3		"	100		83.3	80-120			
Xylene (o)	41.2		"	50.0		82.4	80-120			
Surrogate a,a,a-Trifluorotoluene	41.8		"	50.0		83.6	75-125			
Surrogate 4-Bromofluorobenzene	45.7		"	50.0		91.4	75-125			

Matrix Spike (EC71207-MS1)

Source: 7C09003-12

Prepared 03/12/07 Analyzed 03/13/07

Benzene	0.0803	0.00200	mg/kg dry	0.101	ND	79.5	80-120			M8
Toluene	0.0763	0.00200	"	0.101	ND	75.5	80-120			M8
Ethylbenzene	0.0675	0.00200	"	0.101	ND	66.8	80-120			M8
Xylene (p/m)	0.138	0.00200	"	0.202	ND	68.3	80-120			M8
Xylene (o)	0.0631	0.00200	"	0.101	ND	62.5	80-120			M8
Surrogate a,a,a-Trifluorotoluene	37.8		ug/kg	50.0		73.6	75-125			
Surrogate 4-Bromofluorobenzene	39.3		"	50.0		78.6	75-125			

Matrix Spike Dup (EC71207-MSD1)

Source: 7C09003-12

Prepared 03/12/07 Analyzed 03/13/07

Benzene	0.0787	0.00200	mg/kg dry	0.101	ND	77.9	80-120	2.03	20	M8
Toluene	0.0701	0.00200	"	0.101	ND	69.4	80-120	8.42	20	M8
Ethylbenzene	0.0692	0.00200	"	0.101	ND	68.5	80-120	2.51	20	M8
Xylene (p/m)	0.135	0.00200	"	0.202	ND	66.8	80-120	2.22	20	M8
Xylene (o)	0.0614	0.00200	"	0.101	ND	60.8	80-120	2.76	20	M8
Surrogate a,a,a-Trifluorotoluene	37.5		ug/kg	50.0		75.0	75-125			
Surrogate 4-Bromofluorobenzene	38.3		"	50.0		76.6	75-125			

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1301 S County Road 1150
Midland TX, 79706-4476

Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

Fax (432) 687-4914

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
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Batch EC71206 - General Preparation (Prep)

Blank (EC71206-BLK1)

Prepared 03/09/07 Analyzed 03/12/07

% Solids 100 %

Duplicate (EC71206-DUP1)

Source: 7C09011-01

Prepared 03/09/07 Analyzed 03/12/07

% Solids 91.2 % 91.0 0.220 20

Duplicate (EC71206-DUP2)

Source: 7C09003-09

Prepared 03/09/07 Analyzed 03/12/07

% Solids 99.6 % 99.9 0.301 20

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1301 S. County Road 1150
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Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

Fax (432) 687-4914

Notes and Definitions

S-DUP Duplicate analysis confirmed surrogate failure due to matrix effects

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect

M8 The MS and/or MSD were below the acceptance limits See Blank Spike (LCS)

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. _____

Date: 3/14/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

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Project 101 Line to Judkins
Project Number EMS# 2006-026
Project Manager Camille Reynolds

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

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Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Talon LPE
 Date/ Time: 3/8/07 17:30
 Lab ID #: 7C09003
 Initials: DM

Sample Receipt Checklist

Client Initials

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

TRACE ANALYSIS, INC.

8701 Ardmore Avenue, Suite 300 El Paso, Texas 79914 807-871-1195 FAX 807-871-1256 FAX 807-871-1268
 2901 East Street, Room 100 El Paso, Texas 79902 807-526-3442 807-526-3442 FAX 807-526-3442
 3800 Brown Street, Suite 41 El Paso, Texas 79903 409-645-6200 FAX 409-645-6200
 8001 Harris Parkway, Suite 110 El Paso, Texas 79912 409-761-5766
 E-mail: info@traceanalysis.com

Analytical and Quality Control Report

Shanna Smith
 Talon/LPE-Midland
 #9 East Industrial Loop
 Midland, TX, 79701

Report Date: August 21, 2007

Work Order: 7081716



Project Location: Hobbs, NM
 Project Name: EK Queen Trunk
 Project Number: Plains 041 SPL
 SRS #: 2007-024

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
133542	NW-1A	soil	2007-08-16	10:20	2007-08-17
133543	NW-2A	soil	2007-08-16	10:23	2007-08-17
133544	NW-3A	soil	2007-08-16	10:25	2007-08-17
133545	EW-1	soil	2007-08-16	11:26	2007-08-17
133546	WW-1	soil	2007-08-16	11:27	2007-08-17
133547	MW-2A	soil	2007-08-16	11:07	2007-08-17
133548	MW-3A	soil	2007-08-16	11:08	2007-08-17
133549	BH-1A 6'	soil	2007-08-16	11:36	2007-08-17
133550	BH-2A 6'	soil	2007-08-16	11:37	2007-08-17
133551	BH-3A 14'	soil	2007-08-16	11:25	2007-08-17
133552	BH-4 10'	soil	2007-08-16	10:36	2007-08-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 133542 - NW-1A

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	40189	Date Analyzed:	2007-08-17	Analyzed By:	
Prep Batch:	34780	Sample Preparation:	2007-08-17	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		217	mg/Kg	1	150	145	17.3 - 169.6

Sample: 133542 - NW-1A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40261	Date Analyzed:	2007-08-20	Analyzed By:	
Prep Batch:	34840	Sample Preparation:	2007-08-20	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1	0.966	mg/Kg	1	1.00	97	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	50.8 - 131.6

Sample: 133543 - NW-2A

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	40189	Date Analyzed:	2007-08-17	Analyzed By:	
Prep Batch:	34780	Sample Preparation:	2007-08-17	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		211	mg/Kg	1	150	141	17.3 - 169.6

Sample: 133543 - NW-2A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40261	Date Analyzed:	2007-08-20	Analyzed By:	
Prep Batch:	34840	Sample Preparation:	2007-08-20	Prepared By:	

¹High surrogate recovery. Sample non-detect, result bias high

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²	0.988	mg/Kg	1	1.00	99	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	50.8 - 131.6

Sample: 133544 - NW-3A

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	150	121	17.3 - 169.6

Sample: 133544 - NW-3A

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	³	0.958	mg/Kg	1	1.00	96	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	50.8 - 131.6

Sample: 133545 - EW-1

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 40257 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

²High surrogate recovery Sample non-detect, result bias high.

³High surrogate recovery Sample non-detect, result bias high.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.04	mg/Kg	1	1.00	104	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	47.3 - 144.2

Sample: 133545 - EW-1

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		57.8	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		187	mg/Kg	1	150	125	17.3 - 169.6

Sample: 133545 - EW-1

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	4	0.958	mg/Kg	1	1.00	96	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	50.8 - 131.6

Sample: 133546 - WW-1

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 40257 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

⁴High surrogate recovery. Sample non-detect, result bias high

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.965	mg/Kg	1	1.00	96	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	47.3 - 144.2

Sample: 133546 - WW-1

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		190	mg/Kg	1	150	127	17.3 - 169.6

Sample: 133546 - WW-1

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.852	mg/Kg	1	1.00	85	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	50.8 - 131.6

Sample: 133547 - MW-2A

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		200	mg/Kg	1	150	133	17.3 - 169.6

Sample: 133547 - MW-2A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40261	Date Analyzed:	2007-08-20	Analyzed By:	
Prep Batch:	34840	Sample Preparation:	2007-08-20	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.35	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	⁵	0.957	mg/Kg	1	1.00	96	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	50.8 - 131.6

Sample: 133548 - MW-3A

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	40189	Date Analyzed:	2007-08-17	Analyzed By:	
Prep Batch:	34780	Sample Preparation:	2007-08-17	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		234	mg/Kg	1	150	156	17.3 - 169.6

Sample: 133548 - MW-3A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40261	Date Analyzed:	2007-08-20	Analyzed By:	
Prep Batch:	34840	Sample Preparation:	2007-08-20	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	⁶	1.03	mg/Kg	1	1.00	103	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	50.8 - 131.6

Sample: 133549 - BH-1A 6'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	40189	Date Analyzed:	2007-08-17	Analyzed By:	
Prep Batch:	34780	Sample Preparation:	2007-08-17	Prepared By:	

⁵High surrogate recovery due to peak interference

⁶High surrogate recovery. Sample non-detect, result bias high

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		205	mg/Kg	1	150	137	17.3 - 169.6

Sample: 133549 - BH-1A 6'

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	7	0.919	mg/Kg	1	1.00	92	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	50.8 - 131.6

Sample: 133550 - BH-2A 6'

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		279	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		218	mg/Kg	1	150	145	17.3 - 169.6

Sample: 133550 - BH-2A 6'

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.71	mg/Kg	1	1.00

⁷High surrogate recovery Sample non-detect, result bias high

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.884	mg/Kg	1	1.00	88	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	50.8 - 131.6

Sample: 133551 - BH-3A 14'

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		215	mg/Kg	1	150	143	17.3 - 169.6

Sample: 133551 - BH-3A 14'

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	^s	0.901	mg/Kg	1	1.00	90	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	50.8 - 131.6

Sample: 133552 - BH-4 10'

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 40257 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

^sHigh surrogate recovery. Sample non-detect. result bias high

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.999	mg/Kg	1	1.00	100	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.16	mg/Kg	1	1.00	116	47.3 - 144.2

Sample: 133552 - BH-4 10'

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 Sample Preparation: 2007-08-17 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		116	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		216	mg/Kg	1	150	144	17.3 - 169.6

Sample: 133552 - BH-4 10'

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 40261 Date Analyzed: 2007-08-20 Analyzed By:
Prep Batch: 34840 Sample Preparation: 2007-08-20 Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		22.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.852	mg/Kg	1	1.00	85	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	50.8 - 131.6

Method Blank (1) QC Batch: 40189

QC Batch: 40189 Date Analyzed: 2007-08-17 Analyzed By:
Prep Batch: 34780 QC Preparation: 2007-08-17 Prepared By:

Parameter	Flag	MDL Result	Units	RL
DRO		<13.4	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		203	mg/Kg	1	150	135	32.9 - 156.1

Method Blank (1) QC Batch: 40257

QC Batch: 40257
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	53.1 - 111.6

Method Blank (1) QC Batch: 40261

QC Batch: 40261
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	67.8 - 103
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	55.4 - 111.8

Laboratory Control Spike (LCS-1)

QC Batch: 40189
Prep Batch: 34780

Date Analyzed: 2007-08-17
QC Preparation: 2007-08-17

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	291	mg/Kg	1	250	<13.4	116	49.1 - 142.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	283	mg/Kg	1	250	<13.4	113	49.1 - 142.3	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	181	188	mg/Kg	1	150	121	125	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 40257
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00110	98	71.2 - 119
Toluene	1.03	mg/Kg	1	1.00	<0.00150	103	76.3 - 116.5
Ethylbenzene	1.04	mg/Kg	1	1.00	<0.00160	104	77.6 - 114
Xylene	3.11	mg/Kg	1	3.00	<0.00410	104	78.8 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.944	mg/Kg	1	1.00	<0.00110	94	71.2 - 119	4	20
Toluene	1.00	mg/Kg	1	1.00	<0.00150	100	76.3 - 116.5	3	20
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00160	102	77.6 - 114	2	20
Xylene	3.01	mg/Kg	1	3.00	<0.00410	100	78.8 - 113.9	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.00	1.06	mg/Kg	1	1.00	100	106	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	1.01	0.996	mg/Kg	1	1.00	101	100	56.2 - 118.8

Laboratory Control Spike (LCS-1)

QC Batch: 40261
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.50	mg/Kg	1	10.0	<0.739	85	56 - 105.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.43	mg/Kg	1	10.0	<0.739	94	56 - 105.2	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.01	0.994	mg/Kg	1	1.00	101	99	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	1.05	1.03	mg/Kg	1	1.00	105	103	67.2 - 119.2

Matrix Spike (MS-1) Spiked Sample: 133542

QC Batch: 40189
Prep Batch: 34780

Date Analyzed: 2007-08-17
QC Preparation: 2007-08-17

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	226	mg/Kg	1	250	<13.4	90	30.2 - 201.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	246	mg/Kg	1	250	<13.4	98	30.2 - 201.4	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	190	168	mg/Kg	1	150	127	112	10 - 194

Matrix Spike (MS-1) Spiked Sample: 133622

QC Batch: 40257
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.03	mg/Kg	1	1.00	<0.00110	103	65.7 - 119.1
Toluene	1.12	mg/Kg	1	1.00	<0.00150	112	47.7 - 153.8
Ethylbenzene	1.17	mg/Kg	1	1.00	<0.00160	117	73.5 - 126.3
Xylene	3.47	mg/Kg	1	3.00	<0.00410	116	73.6 - 125.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.13	mg/Kg	1	1.00	<0.00110	113	65.7 - 119.1	9	20
Toluene	1.20	mg/Kg	1	1.00	<0.00150	120	47.7 - 153.8	7	20
Ethylbenzene	1.24	mg/Kg	1	1.00	<0.00160	124	73.5 - 126.3	6	20
Xylene	3.72	mg/Kg	1	3.00	<0.00410	124	73.6 - 125.9	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.962	0.970	mg/Kg	1	1	96	97	51 - 109.6
4-Bromofluorobenzene (4-BFB)	1.04	1.02	mg/Kg	1	1	104	102	60.3 - 124.3

Matrix Spike (MS-1) Spiked Sample: 133622

QC Batch: 40261
Prep Batch: 34840

Date Analyzed: 2007-08-20
QC Preparation: 2007-08-20

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.56	mg/Kg	1	10.0	<0.739	89	10 - 102.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
GRO	10.3	mg/Kg	1	10.0	<0.739	97	10 - 102.2	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	⁹ 0.982	0.844	mg/Kg	1	1	98	84	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	1.06	1.04	mg/Kg	1	1	106	104	58 - 162.6

Standard (ICV-1)

QC Batch: 40189

Date Analyzed: 2007-08-17

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	243	97	85 - 115	2007-08-17

Standard (CCV-1)

QC Batch: 40189

Date Analyzed: 2007-08-17

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	85 - 115	2007-08-17

Standard (CCV-2)

QC Batch: 40189

Date Analyzed: 2007-08-17

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	268	107	85 - 115	2007-08-17

Standard (ICV-1)

QC Batch: 40257

Date Analyzed: 2007-08-20

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0917	92	85 - 115	2007-08-20
Toluene		mg/Kg	0.100	0.0953	95	85 - 115	2007-08-20
Ethylbenzene		mg/Kg	0.100	0.0969	97	85 - 115	2007-08-20
Xylene		mg/Kg	0.300	0.288	96	85 - 115	2007-08-20

⁹High surrogate recovery due to peak interference.

Standard (CCV-1)

QC Batch: 40257

Date Analyzed: 2007-08-20

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0973	97	85 - 115	2007-08-20
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2007-08-20
Ethylbenzene		mg/Kg	0.100	0.104	104	85 - 115	2007-08-20
Xylene		mg/Kg	0.300	0.306	102	85 - 115	2007-08-20

Standard (ICV-1)

QC Batch: 40261

Date Analyzed: 2007-08-20

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2007-08-20

Standard (CCV-1)

QC Batch: 40261

Date Analyzed: 2007-08-20

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	85 - 115	2007-08-20

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Company Name:	TALON	Phone #:	522-2133
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Contact Person:	Shawna Smith	E-mail:	SSmith@talonlpe.com
Invoice to:	Plains Pipeline		
(If different from above)			
Project #:	2007-024	Project Name:	EK Queen Trunk
Project Location (including state):	Hobbs, NM	Sampler Signature:	Shawna Smith

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/2007	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol 8260B / 624	GC/MS Semi. Vol 8270C / 625	PCBs 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE																							
33542	NW-1A	1	4oz	X								X	X			8/16/07	1020	X																		
343	NW-2A																1023	X																		
344	NW-3A																1025	X																		
345	EW-1																1126	X	X																	
346	WW-1																1127	X	X																	
347	mw-2A																1107	X																		
348	mw-3A																1108	X																		
349	BH-1A 6'																1136	X																		
350	BH-2A 6'																1137	X																		
351	BH-3A 14'																1125	X																		
352	BH-4A 10'																1036	X	X																	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawna Smith	8/17/07	1050	Shawna Smith	8/17/07	10:50

Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY

Intact: ☒ Y / ☐ N

Headspace: ☒ Y / ☐ N

Temp: 3.0

Log-In/Review: ☒ Y

REMARKS:

email Camille Reynolds
Shawna Smith

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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TRACE ANALYSIS, INC.

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Analytical and Quality Control Report

Talon/LPE-Midland
#9 East Industrial Loop
Midland, TX, 79701

Report Date: August 29, 2007

Work Order: 7082329



Project Location: Hobbs, NM
Project Name: EK Queen Trunk
Project Number: Plains 041 SPL
SRS #: 2007-024

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
134125	BH-4 12"	soil	2007-08-16	10:50	2007-08-23

NOTE

Work Order 7082329: E-mail results to Shanna Smith at Talon and Camille Reynolds at Plains

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank

Case Narrative

Samples for project EK Queen Trunk were received by TraceAnalysis, Inc. on 2007-08-23 and assigned to work order 7082329. Samples for work order 7082329 were received intact at a temperature of 3 0 deg C.

Samples were analyzed for the following tests using their respective methods

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7082329 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 134125 - BH-4 12'

Analysis	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	40364	Date Analyzed:	2007-08-23	Analyzed By:	LD
Prep Batch:	34915	Sample Preparation:	2007-08-23	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		247	mg/Kg	1	150	165	17.3 - 169.6

Sample: 134125 - BH-4 12'

Analysis	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40540	Date Analyzed:	2007-08-24	Analyzed By:	DC
Prep Batch:	35014	Sample Preparation:	2007-08-24	Prepared By:	DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.894	mg/Kg	1	1.00	89	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	50.8 - 131.6

Method Blank (1) QC Batch: 40364

QC Batch:	40364	Date Analyzed:	2007-08-23	Analyzed By:	LD
Prep Batch:	34915	QC Preparation:	2007-08-23	Prepared By:	LD

Parameter	Flag	MDL Result	Units	RL
DRO		<13.4	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		196	mg/Kg	1	150	131	32.9 - 156.1

Method Blank (1) QC Batch: 40540

QC Batch:	40540	Date Analyzed:	2007-08-24	Analyzed By:	DC
Prep Batch:	35014	QC Preparation:	2007-08-24	Prepared By:	DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.965	mg/Kg	1	1.00	96	54.4 - 111.8

Laboratory Control Spike (LCS-1)

QC Batch: 40364
Prep Batch: 34915

Date Analyzed: 2007-08-23
QC Preparation: 2007-08-23

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	188	mg/Kg	1	250	<13.4	75	49.1 - 142.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	213	mg/Kg	1	250	<13.4	85	49.1 - 142.3	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	181	159	mg/Kg	1	150	121	106	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 40540
Prep Batch: 35014

Date Analyzed: 2007-08-24
QC Preparation: 2007-08-24

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.21	mg/Kg	1	10.0	<0.739	82	56 - 105.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.12	mg/Kg	1	10.0	<0.739	91	56 - 105.2	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec Limit
Trifluorotoluene (TFT)	0.970	0.970	mg/Kg	1	1.00	97	97	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.990	0.993	mg/Kg	1	1.00	99	99	67.2 - 119.2

Matrix Spike (MS-1) Spiked Sample: 133920

QC Batch: 40364
Prep Batch: 34915

Date Analyzed: 2007-08-23
QC Preparation: 2007-08-23

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	254	mg/Kg	1	250	<13.4	102	30.2 - 201.4

Percent recovery is based on the spike result RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	183	mg/Kg	1	250	<13.4	73	30.2 - 201.4	32	20

Percent recovery is based on the spike result RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	243	215	mg/Kg	1	150	162	143	10 - 194

Matrix Spike (MS-1) Spiked Sample: 134125

QC Batch: 40540
Prep Batch: 35014

Date Analyzed: 2007-08-24
QC Preparation: 2007-08-24

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.22	mg/Kg	1	10.0	<0.739	77	10 - 102.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	6.85	mg/Kg	1	10.0	<0.739	63	10 - 102.2	18	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.791	0.747	mg/Kg	1	1	79	75	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	1.04	1.03	mg/Kg	1	1	104	103	58 - 162.6

Standard (ICV-1)

QC Batch 40364

Date Analyzed: 2007-08-23

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	227	91	85 - 115	2007-08-23

¹RPD is out of control due to the extraction process. Use LCS/LCSD to demonstrate that the method is under control •

Standard (CCV-1)

QC Batch 40364

Date Analyzed: 2007-08-23

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	236	94	85 - 115	2007-08-23

Standard (ICV-1)

QC Batch 40540

Date Analyzed: 2007-08-24

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	85 - 115	2007-08-24

Standard (CCV-1)

QC Batch: 40540

Date Analyzed: 2007-08-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.954	95	85 - 115	2007-08-24

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Contact Person:	Shanna Smith	E-mail:	SSmith@talonpc.com
Invoice to:	(If different from above) Plains - Camille Reynolds		
Project #:	2007-024	Project Name:	EK Queen Trunk
Project Location (including state):	Hobbs, NM	Sampler Signature:	Shanna Smith

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

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Analytical and Quality Control Report

Shanna Smith
Talon/LPE-Midland
#9 East Industrial Loop
Midland, TX, 79701

Report Date: October 8, 2007

Work Order: 7092608



Project Location: Hobbs, NM
Project Name: EK Queen Trunk
Project Number: Plans 041 SPL
SRS #: 2007-024

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
137375	BH-2A 8'	soil	2007-09-26	08:10	2007-09-26

NOTE

Work Order 7092608: E-mail results to Camille Reynolds at Plains, Shanna Smith at Talon/LPE-Midland and Marc Stroope at Talon/LPE-Hobbs.

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc

Dr Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank

Analytical Report

Sample: 137375 - BH-2A 8'

Analysis: BTEX
QC Batch: 41544
Prep Batch: 35879

Analytical Method: S 8021B
Date Analyzed: 2007-09-26
Sample Preparation: 2007-09-26

Prep Method: S 5035
Analyzed By:
Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.05	mg/Kg	1	1.00	105	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	47.3 - 144.2

Sample: 137375 - BH-2A 8'

Analysis: TPH DRO
QC Batch: 41477
Prep Batch: 35839

Analytical Method: Mod. 8015B
Date Analyzed: 2007-09-26
Sample Preparation: 2007-09-26

Prep Method: N/A
Analyzed By:
Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		196	mg/Kg	1	150	131	17.3 - 169.6

Sample: 137375 - BH-2A 8'

Analysis: TPH GRO
QC Batch: 41564
Prep Batch: 35915

Analytical Method: S 8015B
Date Analyzed: 2007-09-27
Sample Preparation: 2007-09-27

Prep Method: S 5035
Analyzed By:
Prepared By:

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		26.1	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		14.0	mg/Kg	20	20.0	70	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		17.6	mg/Kg	20	20.0	88	50.8 - 131.6

Method Blank (1) QC Batch: 41477

QC Batch: 41477
Prep Batch: 35839

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Parameter	Flag	MDL Result	Units	RL
DRO		<13.4	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		218	mg/Kg	1	150	145	32.9 - 156.1

Method Blank (1) QC Batch: 41544

QC Batch: 41544
Prep Batch: 35879

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	53.1 - 111.6

Method Blank (1) QC Batch: 41564

QC Batch: 41564
Prep Batch: 35915

Date Analyzed: 2007-09-27
QC Preparation: 2007-09-27

Analyzed By:
Prepared By:

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.741	mg/Kg	1	1.00	74	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.896	mg/Kg	1	1.00	90	55.4 - 111.8

Laboratory Control Spike (LCS-1)

QC Batch: 41477
Prep Batch: 35839

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
DRO	291	mg/Kg	1	250	<13.4	116	49.1 - 142.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	288	mg/Kg	1	250	<13.4	115	49.1 - 142.3	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec Limit
n-Triacontane	98.3	101	mg/Kg	1	150	66	67	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 41544
Prep Batch: 35879

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.08	mg/Kg	1	1.00	<0.00110	108	71.2 - 119
Toluene	1.13	mg/Kg	1	1.00	<0.00150	113	76.3 - 116.5
Ethylbenzene	1.13	mg/Kg	1	1.00	<0.00160	113	77.6 - 114
Xylene	3.38	mg/Kg	1	3.00	<0.00410	113	78.8 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.08	mg/Kg	1	1.00	<0.00110	108	71.2 - 119	0	20
Toluene	1.12	mg/Kg	1	1.00	<0.00150	112	76.3 - 116.5	1	20
Ethylbenzene	1.14	mg/Kg	1	1.00	<0.00160	114	77.6 - 114	1	20
Xylene	3.40	mg/Kg	1	3.00	<0.00410	113	78.8 - 113.9	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.02	0.987	mg/Kg	1	1.00	102	99	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	1.12	1.11	mg/Kg	1	1.00	112	111	56.2 - 118.8

Laboratory Control Spike (LCS-1)

QC Batch: 41564
Prep Batch: 35915

Date Analyzed: 2007-09-27
QC Preparation: 2007-09-27

Analyzed By:
Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	6.51	mg/Kg	1	10.0	<0.739	65	56 - 105.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	6.99	mg/Kg	1	10.0	<0.739	70	56 - 105.2	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.850	0.851	mg/Kg	1	1.00	85	85	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.958	0.970	mg/Kg	1	1.00	96	97	67.2 - 119.2

Matrix Spike (MS-1) Spiked Sample: 137375

QC Batch: 41477
Prep Batch: 35839

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	228	mg/Kg	1	250	<13.4	91	30.2 - 201.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	142	mg/Kg	1	250	<13.4	57	30.2 - 201.4	46	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	218	190	mg/Kg	1	150	145	127	10 - 194

Matrix Spike (MS-1) Spiked Sample: 137295

QC Batch: 41544
Prep Batch: 35879

Date Analyzed: 2007-09-26
QC Preparation: 2007-09-26

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.02	mg/Kg	1	1.00	<0.00110	102	65.7 - 119.1
Toluene	1.11	mg/Kg	1	1.00	<0.00150	111	47.7 - 153.8
Ethylbenzene	1.12	mg/Kg	1	1.00	<0.00160	112	73.5 - 126.3
Xylene	3.35	mg/Kg	1	3.00	<0.00410	112	73.6 - 125.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.03	mg/Kg	1	1.00	<0.00110	103	65.7 - 119.1	1	20
Toluene	1.10	mg/Kg	1	1.00	<0.00150	110	47.7 - 153.8	1	20
Ethylbenzene	1.11	mg/Kg	1	1.00	<0.00160	111	73.5 - 126.3	1	20
Xylene	3.29	mg/Kg	1	3.00	<0.00410	110	73.6 - 125.9	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.03	1.02	mg/Kg	1	1	103	102	51 - 109.6
4-Bromofluorobenzene (4-BFB)	1.11	1.12	mg/Kg	1	1	111	112	60.3 - 124.3

Matrix Spike (MS-1) Spiked Sample: 137017

QC Batch: 41564
Prep Batch: 35915

Date Analyzed: 2007-09-27
QC Preparation: 2007-09-27

Analyzed By:
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	164	mg/Kg	20	200	95.1413	34	10 - 102.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	175	mg/Kg	20	200	95.1413	40	10 - 102.2	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	11.9	11.5	mg/Kg	20	20	60	58	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	16.8	16.7	mg/Kg	20	20	84	84	58 - 162.6

Standard (ICV-1)

QC Batch: 41477

Date Analyzed: 2007-09-26

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	286	114	85 - 115	2007-09-26

Standard (CCV-1)

QC Batch: 41477

Date Analyzed: 2007-09-26

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	265	106	85 - 115	2007-09-26

Standard (ICV-1)

QC Batch: 41544

Date Analyzed: 2007-09-26

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.106	106	85 - 115	2007-09-26
Toluene		mg/Kg	0.100	0.114	114	85 - 115	2007-09-26
Ethylbenzene		mg/Kg	0.100	0.113	113	85 - 115	2007-09-26
Xylene		mg/Kg	0.300	0.339	113	85 - 115	2007-09-26

Standard (CCV-1)

QC Batch: 41544

Date Analyzed: 2007-09-26

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0971	97	85 - 115	2007-09-26
Toluene		mg/Kg	0.100	0.103	103	85 - 115	2007-09-26
Ethylbenzene		mg/Kg	0.100	0.102	102	85 - 115	2007-09-26
Xylene		mg/Kg	0.300	0.307	102	85 - 115	2007-09-26

Standard (ICV-1)

QC Batch: 41564

Date Analyzed: 2007-09-27

Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.907	91	85 - 115	2007-09-27

Standard (CCV-1)

QC Batch: 41564

Date Analyzed: 2007-09-27

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.997	100	85 - 115	2007-09-27

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Analytical and Quality Control Report

EB Taylor
Talon LPE
921 North Bivins
Amarillo, TX, 79107

Report Date November 5, 2007

Work Order. 7102935



Project Location: Lea County, NM
Project Name: E.K. Queen 6" Trunk
Project Number: PLAINS041SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
140933	SP-1	soil	2007-10-24	14.30	2007-10-26

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blain Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank

Case Narrative

Samples for project E.K. Queen 6" Trunk were received by TraceAnalysis, Inc. on 2007-10-26 and assigned to work order 7102935. Samples for work order 7102935 were received intact at a temperature of 3.0 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Chloride (IC)	E 300.0
Corrosivity	S 1110
Ignitability	SW-846 Ch 7.1
Reactivity	ASTM D 5049-90/4978-95
TCLP Ag	S 6010B
TCLP As	S 6010B
TCLP Ba	S 6010B
TCLP Cd	S 6010B
TCLP Cr	S 6010B
TCLP Hg	S 7470A
TCLP Pb	S 6010B
TCLP Se	S 6010B
TCLP Volatiles	S 8260B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7102935 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 140933 - SP-1

Analysis	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	42681	Date Analyzed:	2007-11-02	Analyzed By:	ER
Prep Batch:	36830	Sample Preparation:	2007-11-02	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10.6	mg/Kg	5	1.00

Sample: 140933 - SP-1

Analysis	RCI	Analytical Method:	S 1110	Prep Method	N/A
QC Batch:	42505	Date Analyzed:	2007-10-29	Analyzed By:	ER
Prep Batch:	36681	Sample Preparation:	2007-10-29	Prepared By:	ER
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7 1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	RL Result	Units	Dilution	RL
Reactivity		non-reactive		1	0.00
Hydrogen Sulhde		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		non-corrosive	mm/yr	1	0.00
pH		8.10	s.u.	1	0.00
Ignitability		non-ignitable		1	0.00

Sample: 140933 - SP-1

Analysis	TCLP Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	TCLP 1311
QC Batch:	42610	Date Analyzed:	2007-11-01	Analyzed By:	RR
Prep Batch:	36757	TCLP Extraction:	2007-10-30	Prepared By:	KV
		Sample Preparation:	2007-11-01	Prepared By:	KV
Analysis:	TCLP Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	TCLP 1311
QC Batch:	42664	Date Analyzed:	2007-11-02	Analyzed By:	TP
Prep Batch:	36810	TCLP Extraction:		Prepared By:	TP
		Sample Preparation:	2007-11-02	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
TCLP Silver		<0.125	mg/L	1	0.125
TCLP Arsenic		<0.100	mg/L	1	0.100
TCLP Barium		1.33	mg/L	1	0.100
TCLP Cadmium		<0.0500	mg/L	1	0.0500
TCLP Chromium		<0.100	mg/L	1	0.100
TCLP Mercury		<0.000500	mg/L	1	0.000500
TCLP Lead		<0.100	mg/L	1	0.100
TCLP Selenium		<0.500	mg/L	1	0.500

Sample: 140933 - SP-1

Analysis:	TCLP Volatiles	Analytical Method:	S 8260B	Prep Method	TCLP 1311
QC Batch:	42700	Date Analyzed	2007-11-02	Analyzed By:	KB
Prep Batch:	36845	TCLP Extraction:	2007-11-01	Prepared By:	KB
		Sample Preparation:	2007-11-02	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Vinyl Chloride		<0.0500	mg/L	50	0.00100
1,1-Dichloroethene		<0.0500	mg/L	50	0.00100
2-Butanone (MEK)		<0.500	mg/L	50	0.0100
Chloroform		<0.0500	mg/L	50	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	50	0.00100
Benzene		<0.0500	mg/L	50	0.00100
Carbon Tetrachloride		<0.0500	mg/L	50	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	50	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	50	0.00100
Chlorobenzene		<0.0500	mg/L	50	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		0.0558	mg/L	50	0.0500	112	70 - 130
Toluene-d8		0.0528	mg/L	50	0.0500	106	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0454	mg/L	50	0.0500	91	70 - 130

Method Blank (1) QC Batch: 42610

QC Batch:	42610	Date Analyzed:	2007-11-01	Analyzed By:	RR
Prep Batch:	36757	QC Preparation:	2007-10-31	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
TCLP Silver		<0.00780	mg/L	0.125
TCLP Arsenic		<0.0590	mg/L	0.1
TCLP Barium		<0.00340	mg/L	0.1
TCLP Cadmium		<0.00270	mg/L	0.05
TCLP Chromium		<0.00660	mg/L	0.1
TCLP Lead		<0.0370	mg/L	0.1
TCLP Selenium		<0.100	mg/L	0.5

Method Blank (1) QC Batch: 42664

QC Batch:	42664	Date Analyzed:	2007-11-02	Analyzed By:	TP
Prep Batch:	36810	QC Preparation:	2007-11-02	Prepared By:	TP

Parameter	Flag	MDL Result	Units	RL
TCLP Mercury		<0.0000610	mg/L	0.0005

Method Blank (1) QC Batch: 42681

QC Batch: 42681
Prep Batch: 36830

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: ER
Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.140	mg/Kg	1

Method Blank (1) QC Batch: 42700

QC Batch: 42700
Prep Batch: 36845

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Vinyl Chloride		<0.00895	mg/L	0.001
1,1-Dichloroethene		<0.0122	mg/L	0.001
2-Butanone (MEK)		<0.0492	mg/L	0.01
Chloroform		<0.00845	mg/L	0.001
1,2-Dichloroethane (EDC)		<0.00785	mg/L	0.001
Benzene		<0.00920	mg/L	0.001
Carbon Tetrachloride		<0.00805	mg/L	0.001
Trichloroethene (TCE)		<0.0354	mg/L	0.001
Tetrachloroethene (PCE)		<0.00615	mg/L	0.001
Chlorobenzene		<0.00725	mg/L	0.001
1,4-Dichlorobenzene (para)		<0.00905	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		0.0527	mg/L	50	0.0500	105	70 - 130
Toluene-d8		0.0510	mg/L	50	0.0500	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0436	mg/L	50	0.0500	87	70 - 130

Duplicates (1)

QC Batch: 42505
Prep Batch: 36681

Date Analyzed: 2007-10-29
QC Preparation: 2007-10-29

Analyzed By: ER
Prepared By: ER

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Reactivity	non-reactive	non-reactive		1	0	20
Hydrogen Sulfide	0.00	0.00	mg/Kg	1	0	20
Hydrogen Cyanide	0.00	0.00	mg/Kg	1	0	18.3
Corrosivity	non-corrosive	non-corrosive	mm/yr	1	0	20
pH	8.10	8.10	su	1	0	20
Ignitability	non-ignitable	non-ignitable		1	0	20

Laboratory Control Spike (LCS-1)

QC Batch: 42610
Prep Batch: 36757

Date Analyzed: 2007-11-01
QC Preparation: 2007-10-31

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit
TCLP Silver	1.25	mg/L	1	1.25	<0.00780	100	82.5 - 112
TCLP Arsenic	5.22	mg/L	1	5.00	<0.0590	104	81.2 - 113
TCLP Barium	10.1	mg/L	1	10.0	<0.00340	101	80.1 - 113
TCLP Cadmium	2.58	mg/L	1	2.50	<0.00270	103	82 - 111
TCLP Chromium	1.03	mg/L	1	1.00	<0.00660	103	89.5 - 112
TCLP Lead	5.00	mg/L	1	5.00	<0.0370	100	84.9 - 107
TCLP Selenium	4.71	mg/L	1	5.00	<0.100	94	80.2 - 98.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
TCLP Silver	1.28	mg/L	1	1.25	<0.00780	102	82.5 - 112	2	20
TCLP Arsenic	5.48	mg/L	1	5.00	<0.0590	110	81.2 - 113	5	20
TCLP Barium	10.1	mg/L	1	10.0	<0.00340	101	80.1 - 113	0	20
TCLP Cadmium	2.63	mg/L	1	2.50	<0.00270	105	82 - 111	2	20
TCLP Chromium	1.06	mg/L	1	1.00	<0.00660	106	89.5 - 112	3	20
TCLP Lead	5.18	mg/L	1	5.00	<0.0370	104	84.9 - 107	4	20
TCLP Selenium	4.89	mg/L	1	5.00	<0.100	98	80.2 - 98.7	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 42664
Prep Batch: 36810

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: TP
Prepared By: TP

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit
TCLP Mercury	0.00524	mg/L	1	0.00500	<0.0000610	105	85.1 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
TCLP Mercury	0.00518	mg/L	1	0.00500	<0.0000610	104	85.1 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 42681
Prep Batch: 36830

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: ER
Prepared By: ER

continued

control spikes continued . . .

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit
Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit
Chloride	12.0	mg/Kg	1	12.5	<0.140	96	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit	RPD	RPD Limit
Chloride	12.4	mg/Kg	1	12.5	<0.140	99	90 - 110	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 42700
Prep Batch: 30845

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit
Vinyl Chloride	7.56	mg/L	50	5.00	<0.00845	151	70 - 130
1,1-Dichloroethene	6.13	mg/L	50	5.00	<0.0122	123	70 - 130
2-Butanone (MEK)	3.38	mg/L	50	5.00	<0.0185	68	70 - 130
Chloroform	5.47	mg/L	50	5.00	<0.00480	109	70 - 130
1,2-Dichloroethane (EDC)	5.52	mg/L	50	5.00	<0.00470	110	70 - 130
Benzene	5.57	mg/L	50	5.00	<0.00920	111	70 - 130
Carbon Tetrachloride	5.51	mg/L	50	5.00	<0.00390	110	70 - 130
Trichloroethene (TCE)	5.08	mg/L	50	5.00	<0.0354	102	70 - 130
Tetrachloroethene (PCE)	3.08	mg/L	50	5.00	<0.0205	62	70 - 130
Chlorobenzene	5.37	mg/L	50	5.00	<0.00725	107	70 - 130
1,4-Dichlorobenzene (para)	5.26	mg/L	50	5.00	<0.00425	105	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit	RPD	RPD Limit
Vinyl Chloride	7.42	mg/L	50	5.00	<0.00845	148	70 - 130	2	20
1,1-Dichloroethene	6.07	mg/L	50	5.00	<0.0122	121	70 - 130	1	20
2-Butanone (MEK)	3.28	mg/L	50	5.00	<0.0185	66	70 - 130	3	20
Chloroform	5.57	mg/L	50	5.00	<0.00480	111	70 - 130	2	20
1,2-Dichloroethane (EDC)	5.62	mg/L	50	5.00	<0.00470	112	70 - 130	2	20
Benzene	5.60	mg/L	50	5.00	<0.00920	112	70 - 130	0	20
Carbon Tetrachloride	5.41	mg/L	50	5.00	<0.00390	108	70 - 130	2	20
Trichloroethene (TCE)	5.06	mg/L	50	5.00	<0.0354	101	70 - 130	0	20
Tetrachloroethene (PCE)	2.97	mg/L	50	5.00	<0.0205	59	70 - 130	4	20

continued . . .

¹Matrix spikes run with batch but spiked sample not included in report. Use LCS/LCSD to show analysis is in control.

²Spike recovery outside default limits. Control limits not yet established.

³Spike recovery outside default limits. Control limits not yet established.

⁴Spike recovery outside default limits. Control limits not yet established.

⁵Spike recovery outside default limits. Control limits not yet established. RPD within limits.

⁶Spike recovery outside default limits. Control limits not yet established. RPD within limits.

⁷Spike recovery outside default limits. Control limits not yet established. RPD within limits.

control spikes continued . .

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
Chlorobenzene	5.33	mg/L	50	5.00	<0.00725	107	70 - 130	1	20
1,4-Dichlorobenzene (para)	5.25	mg/L	50	5.00	<0.00425	105	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec	LCS Rec.	Rec. Limit
Dibromofluoromethane	0.0516	0.0525	mg/L	50	0.0500	103	105	70 - 130
Toluene-d8	0.0501	0.0503	mg/L	50	0.0500	100	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0460	0.0462	mg/L	50	0.0500	92	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 140811

QC Batch: 42610
Prep Batch: 36757

Date Analyzed: 2007-11-01
QC Preparation: 2007-10-31

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec. Limit
TCLP Silver	1.29	mg/L	1	1.25	<0.00780	103	86.6 - 106
TCLP Arsenic	5.30	mg/L	1	5.00	<0.0590	106	85.6 - 111
TCLP Barium	10.8	mg/L	1	10.0	0.616	102	82.3 - 109
TCLP Cadmium	2.61	mg/L	1	2.50	<0.00270	104	80.1 - 108
TCLP Chromium	1.05	mg/L	1	1.00	<0.00660	105	85.1 - 113
TCLP Lead	5.17	mg/L	1	5.00	<0.0370	103	80.9 - 105
TCLP Selenium	5.04	mg/L	1	5.00	<0.100	101	77 - 102

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TCLP Silver	1.31	mg/L	1	1.25	<0.00780	105	86.6 - 106	2	20
TCLP Arsenic	5.43	mg/L	1	5.00	<0.0590	109	85.6 - 111	2	20
TCLP Barium	10.9	mg/L	1	10.0	0.616	103	82.3 - 109	1	20
TCLP Cadmium	2.63	mg/L	1	2.50	<0.00270	106	80.1 - 108	2	20
TCLP Chromium	1.05	mg/L	1	1.00	<0.00660	105	85.1 - 113	0	20
TCLP Lead	5.21	mg/L	1	5.00	<0.0370	104	80.9 - 105	1	20
TCLP Selenium	4.84	mg/L	1	5.00	<0.100	97	77 - 102	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 140811

QC Batch: 42664
Prep Batch: 36810

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: TP
Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TCLP Mercury	0.00506	mg/L	1	0.00500	<0.0000610	101	89.8 - 135

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil	Spike Amount	Matrix Result	Rec	Rec Limit	RPD	RPD Limit
TCLP Mercury	0.00497	mg/L	1	0.00500	<0.0000610	99	89.8 - 135	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 140811

QC Batch: 42700
Prep Batch: 36845

Date Analyzed: 2007-11-02
QC Preparation: 2007-11-02

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec Limit
Vinyl Chloride	7.61	mg/L	50	5.00	<0.00845	152	70 - 130
1,1-Dichloroethene	6.12	mg/L	50	5.00	<0.0122	122	70 - 130
2-Butanone (MEK)	3.56	mg/L	50	5.00	<0.0185	71	70 - 130
Chloroform	5.80	mg/L	50	5.00	<0.00480	116	70 - 130
1,2-Dichloroethane (EDC)	5.94	mg/L	50	5.00	<0.00470	119	70 - 130
Benzene	5.73	mg/L	50	5.00	<0.00920	115	70 - 130
Carbon Tetrachloride	5.33	mg/L	50	5.00	<0.00390	107	70 - 130
Trichloroethene (TCE)	5.00	mg/L	50	5.00	<0.0354	100	70 - 130
Tetrachloroethene (PCE)	2.91	mg/L	50	5.00	<0.0205	58	70 - 130
Chlorobenzene	5.37	mg/L	50	5.00	<0.00725	107	70 - 130
1,4-Dichlorobenzene (para)	5.17	mg/L	50	5.00	<0.00425	103	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec Limit	RPD	RPD Limit
Vinyl Chloride	10.1	mg/L	50	5.00	<0.00845	202	70 - 130	28	20
1,1-Dichloroethene	7.48	mg/L	50	5.00	<0.0122	150	70 - 130	20	20
2-Butanone (MEK)	3.92	mg/L	50	5.00	<0.0185	78	70 - 130	10	20
Chloroform	6.18	mg/L	50	5.00	<0.00480	124	70 - 130	6	20
1,2-Dichloroethane (EDC)	6.31	mg/L	50	5.00	<0.00470	126	70 - 130	6	20
Benzene	5.91	mg/L	50	5.00	<0.00920	118	70 - 130	3	20
Carbon Tetrachloride	6.05	mg/L	50	5.00	<0.00390	121	70 - 130	13	20
Trichloroethene (TCE)	5.17	mg/L	50	5.00	<0.0354	103	70 - 130	3	20
Tetrachloroethene (PCE)	2.73	mg/L	50	5.00	<0.0205	55	70 - 130	6	20
Chlorobenzene	5.41	mg/L	50	5.00	<0.00725	108	70 - 130	1	20
1,4-Dichlorobenzene (para)	5.26	mg/L	50	5.00	<0.00425	105	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil	Spike Amount	MS Rec.	MSD Rec	Rec. Limit
Dibromofluoromethane	0.0345	0.0578	mg/L	50	0.05	109	116	70 - 130
Toluene-d8	0.0512	0.0476	mg/L	50	0.05	102	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0462	0.0508	mg/L	50	0.05	92	102	70 - 130

⁸Matrix spike recovery outside default limits. Control limits not yet established.

⁹Matrix spike recovery outside default limits. Control limits not yet established.

¹⁰Matrix spike recovery outside default limits. Control limits not yet established.

¹¹MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.

¹²Matrix spike recovery outside default limits. Control limits not yet established. RPD within limits.

Standard (ICV-1)

QC Batch: 42610

Date Analyzed: 2007-11-01

Analyzed By: RR

Param	Flag	Units	ICVs True Conc	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Silver		mg/L	0.125	0.127	102	90 - 110	2007-11-01
TCLP Arsenic		mg/L	1.00	1.03	103	90 - 110	2007-11-01
TCLP Barium		mg/L	1.00	1.02	102	90 - 110	2007-11-01
TCLP Cadmium		mg/L	1.00	1.03	103	90 - 110	2007-11-01
TCLP Chromium		mg/L	1.00	1.02	102	90 - 110	2007-11-01
TCLP Lead		mg/L	1.00	1.03	103	90 - 110	2007-11-01
TCLP Selenium		mg/L	1.00	1.05	105	90 - 110	2007-11-01

Standard (CCV-1)

QC Batch: 42610

Date Analyzed: 2007-11-01

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Silver		mg/L	0.125	0.131	105	90 - 110	2007-11-01
TCLP Arsenic		mg/L	1.00	1.09	109	90 - 110	2007-11-01
TCLP Barium		mg/L	1.00	1.05	105	90 - 110	2007-11-01
TCLP Cadmium		mg/L	1.00	1.08	108	90 - 110	2007-11-01
TCLP Chromium		mg/L	1.00	1.06	106	90 - 110	2007-11-01
TCLP Lead		mg/L	1.00	1.05	105	90 - 110	2007-11-01
TCLP Selenium		mg/L	1.00	1.09	109	90 - 110	2007-11-01

Standard (ICV-1)

QC Batch: 42664

Date Analyzed: 2007-11-02

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.00500	0.00490	98	90 - 110	2007-11-02

Standard (CCV-1)

QC Batch: 42664

Date Analyzed: 2007-11-02

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.00500	0.00480	96	80 - 120	2007-11-02

Standard (ICV-1)

QC Batch: 42681

Date Analyzed: 2007-11-02

Analyzed By: ER

Param	Flag	Units	ICV's True Conc	ICV's Found Conc	ICV's Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.3	98	90 - 110	2007-11-02

Standard (CCV-1)

QC Batch: 42681

Date Analyzed: 2007-11-02

Analyzed By: ER

Param	Flag	Units	CCV's True Conc	CCV's Found Conc	CCV's Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2007-11-02

Standard (CCV-1)

QC Batch: 42700

Date Analyzed: 2007-11-02

Analyzed By: KB

Param	Flag	Units	CCV's True Conc	CCV's Found Conc	CCV's Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		mg/L	0.0500	0.0594	119	80 - 120	2007-11-02
1,1-Dichloroethene		mg/L	0.0500	0.0507	101	80 - 120	2007-11-02
2-Butanone (MEK)		mg/L	0.0500	0.0508	102	80 - 120	2007-11-02
Chloroform		mg/L	0.0500	0.0481	96	80 - 120	2007-11-02
1,2-Dichloroethane (EDC)		mg/L	0.0500	0.0479	96	80 - 120	2007-11-02
Benzene		mg/L	0.0500	0.0496	99	80 - 120	2007-11-02
Carbon Tetrachloride		mg/L	0.0500	0.0481	96	80 - 120	2007-11-02
Trichloroethene (TCE)		mg/L	0.0500	0.0451	90	80 - 120	2007-11-02
Tetrachloroethene (PCE)	¹³	mg/L	0.0500	0.0285	57	80 - 120	2007-11-02
Chlorobenzene		mg/L	0.0500	0.0476	95	80 - 120	2007-11-02
1,4-Dichlorobenzene (para)		mg/L	0.0500	0.0463	93	80 - 120	2007-11-02

¹³Tetrachloroethene outside of control limits on CCV(ICV). CCV(ICV) component average is 95 which is within acceptable range. This is acceptable by Method 8000.

APPENDIX D

Photograph Documentation

TALON/LPE

Client: Plains All American
Location: E.K. Queen Trunk
Lea County, New Mexico

Photographic Documentation

Prepared by: Marc Stroope
Photographer: Marc Stroope
Project Number: PLAINS041SPL

Photograph No. 1

Direction: East

Description: View of excavation area.



Photograph No. 2

Direction: South

Description: View of excavation area.



TALON/LPE

Client: Plains All American
Location: E.K. Queen Trunk
Lea County, New Mexico

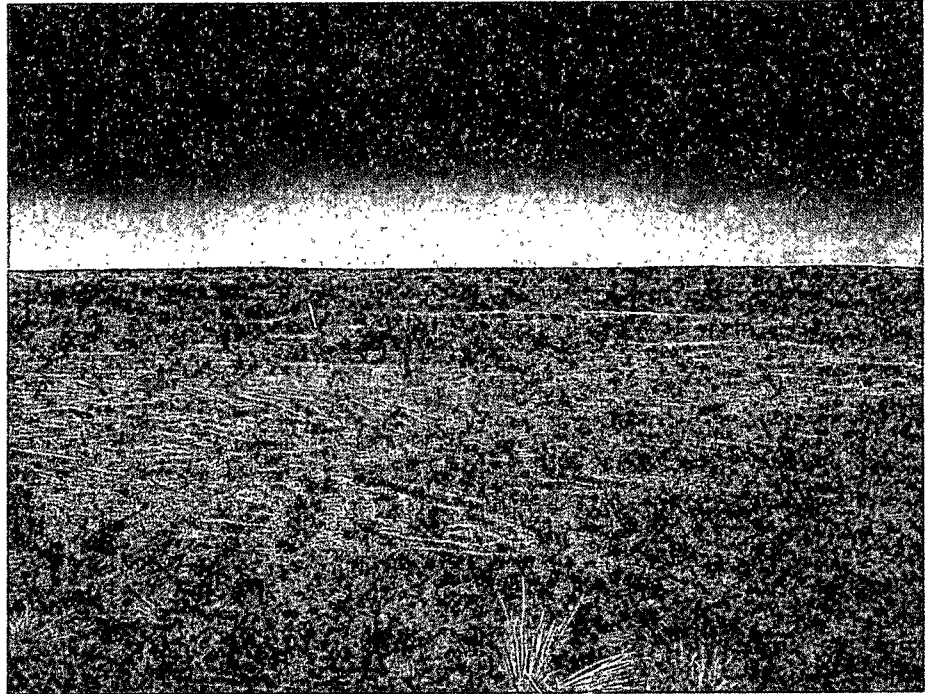
Photographic Documentation

Prepared by: Marc Stroope
Photographer: Marc Stroope
Project Number: PLAINS041SPL

Photograph No. 3

Direction: East

Description: View of
backfilled excavation
area.



Photograph No. 4

Direction: West

Description: View of
backfilled excavation
area.



TALON/LPE

Client: Plains All American
Location: E.K. Queen Trunk
Lea County, New Mexico

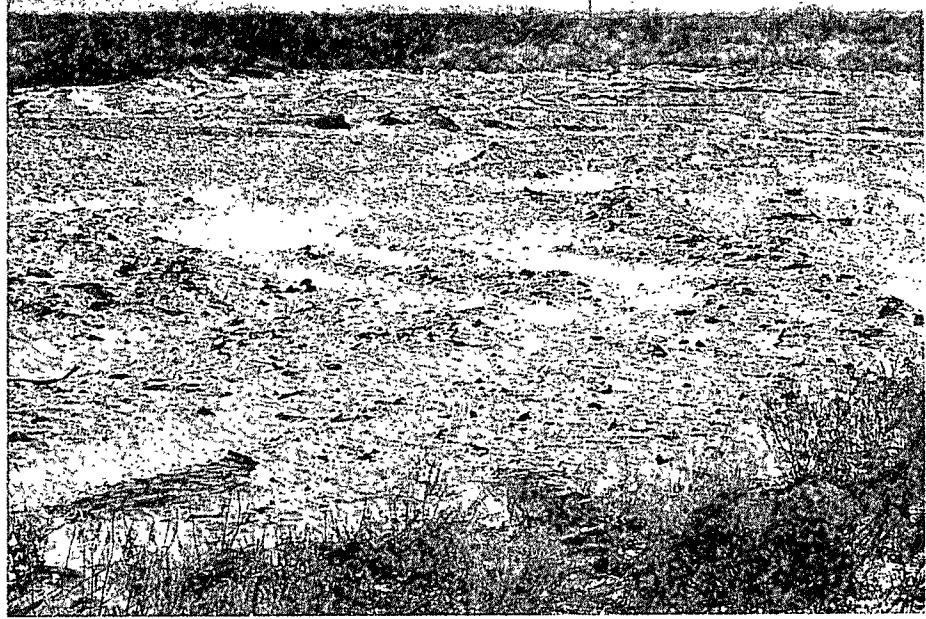
Photographic Documentation

Prepared by: Marc Stroope
Photographer: Marc Stroope
Project Number: PLAINS041SPL

Photograph No. 5

Direction: South

Description: View of
backfilled excavation
area.



Photograph No. 6

Direction: East

Description: View of
backfilled excavation
area.



APPENDIX E
Report of Undesirable Event

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: 01/11/2007 TIME OF OCCURRENCE: 11:52

DATE REPORTED TO BLM: 01/11/2007 TIME REPORTED: 15:56

BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) Carlsbad Office (Jim Amos)

LOCATION: (¼ ¼) SE, SW SECTION 19 T. 18S R. 34E MERIDIAN New Mexico Prime

COUNTY: Lea STATE: NM WELL NAME _____

OPERATOR: COMPANY NAME Hains Pipeline PHONE NO. 505-441-0965

CONTACT PERSON'S NAME Camille Reynolds

SURFACE OWNER: BLM MINERAL OWNER: _____
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: _____ RIGHT-OF-WAY NO.: NM 60175

UNIT NAME / COMMUNITIZATION AGREEMENT NO.: _____

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM (S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL, SALTWATER SPILL, OIL AND
SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW
OF WELLBORE FLUIDS, OTHER (SPECIFY):

CAUSE OF EVENT: Internal Corrosion of 6" steel pipeline

HazMat Notified: (for spills) _____

Law Enforcement Notified: (for thefts) _____

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):

Safety Officer Notified: None

EFFECTS OF EVENT: Hydrocarbon impacted soil

ACTION TAKEN TO CONTROL EVENT: Clamp placed on line

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: _____

VOLUMES DISCHARGED: OIL 90 barrels WATER = GAS =

OTHER AGENCIES NOTIFIED: Pat Caperton - NMDCO

Hobbs Office

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: _____

FINAL INVESTIGATION:

TEAM NAME(S) _____

FIELD INSPECTION DATE _____

SUMMARY OF RESULTS OF INSPECTION _____

RESOURCE LOSS WAS (CIRCLE ITEM): AVOIDABLE UNAVOIDABLE

DATE OF MEMO NOTIFYING MINEALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE: _____

DATE/TIME/PERSON NOTIFIED:

DISTRICT OFFICE _____

STATE OFFICE _____

WASHINGTON OFFICE _____

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION:

REMARKS: _____

SIGNATURE OF AUTHORIZED OFFICER _____

DATE: _____ TITLE: _____

APPENDIX F

Arch Survey

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 107423	2a. Lead (Sponsoring) Agency: BLM, CFO	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
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4. Title of Report: EK Queen Trunk location. Author(s) Ann and Danny Boone	5. Type of Report ☒ Negative ☐ Positive
---	---

6. Investigation Type ☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study ☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other
--

7. Description of Undertaking (what does the project entail?): An excavated area were a buried pipeline leaked petroleum fluids.
--

8. Dates of Investigation: (from: 8/21/2007 to:)	9. Report Date: 08/27/2007
---	----------------------------

10. Performing Agency/Consultant: Boone Archaeological Services, LLC Principal Investigator: Danny Boone Field Supervisor: Danny Boone Field Personnel Names: Danny Boone	11. Performing Agency/Consultant Report No.: BAS 08-07-12
	12. Applicable Cultural Resource Permit No(s): BLM: 190-2920-06-J

13. Client/Customer (project proponent): Plains All American Pipeline, L.P. Contact: Ed Taylor (Agent) Address: 1301 S Country Road 1150 Midland, Texas 79706-4476 Phone: (432) 682-5392	14. Client/Customer Project No.:
--	----------------------------------

15. Land Ownership Status (<i>Must be indicated on project map</i>):		
Land Owner	Acres Surveyed	Acres in APE
BLM	3.77 (+/-)	2.33 (+/-)
TOTALS	3.77 (+/-)	2.33 (+/-)

16. Records Search(es):		
Date(s) of ARMS File Review: 08/20/2007	Name of Reviewer(s): Danny Boone	
Date(s) of NR/SR File Review:	Name of Reviewer(s):	
Date(s) of Other Agency File Review: 08/20/2007	Name of Reviewer(s): Danny Boone	Agency: BLM, CFO
Findings: LA 152393, 49626, 35674, 29418, and 49784 are with 0.25 mile		

17. Survey Data:	
a. Source Graphics	☒ NAD 27 ☐ NAD 83
	☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:
	☒ GPS Unit Accuracy ☐ <1.0m ☒ 1-10m ☐ 10-100m ☐ >100m
b. USGS 7.5' Topographic Map Name	USGS Quad Code
IRONHOUSE WELL, NM (1984)	32103G8
c. County(ies): Lea	

17. Survey Data (continued):

d. Nearest City or Town: Buckeye, NM

e. Legal Description:

Township (N/S)	Range (E/W)	Section	1/4	1/4	1/4
18S	34E	19	SE SW,		

Projected legal description? Yes ☒, No ☐ Unplatted ☒

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverageConfiguration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: 28 Aug. 2007

Survey Person Hours: 1.5 Recording Person Hours: 0 Total Hours: 1.5

Additional Narrative: Location, footage and acres are estimates based on a hand held GPS Unit. A 100 foot buffer was surveyed around the impacted area and marked with a combination of pink and orange tape.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

Topography: Mildly rolling dunal plain.

Vegetative community: Shinoak, sage brush, mesquite, broom snakeweed, assorted grasses and other flora.

NRCS: Peyote-Maljamar-Kermi association: Gently undulating and rolling, deep, sandy soils

Elevation: 3,970 feet.

20. a. Percent Ground Visibility: 90 b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): Impacted area excavated around buried pipeline.

21. CULTURAL RESOURCE FINDINGS ☐ Yes, See Page 3 ☒ No, Discuss Why: Unknown

22. Required Attachments (check all appropriate boxes):

- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
☐ Copy of NMCRIS Mapserver Map Check
☐ LA Site Forms - new sites (*with sketch map & topographic map*)
☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)
☐ Historic Cultural Property Inventory Forms
☐ List and Description of isolates, if applicable
☐ List and Description of Collections, if applicable

23. Other Attachments:

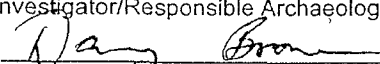
- ☐ Photographs and Log
☐ Other Attachments

(Describe):

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Danny Boone

Signature



Date: 08/27/2007 Title (if not PI):

25. Reviewing Agency:

Reviewer's Name/Date

Accepted () Rejected ()

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO

Reviewer's Name/Date:

HPD Log #:

SHPO File Location:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.:
107423

2. Lead (Sponsoring) Agency:
BLM, CFO

3. Lead Agency Report No.:

SURVEY RESULTS:

Sites discovered and registered: 0

Sites discovered and NOT registered: 0

Previously recorded sites revisited (site update form required): 0

Previously recorded sites not relocated (site update form required): 0

TOTAL SITES VISITED: 0

Total isolates recorded: 0

Non-selective isolate recording? ☒

Total structures recorded (new and previously recorded, including acequias): 0

MANAGEMENT SUMMARY: No cultural resources were encountered during the survey therefore clearance of the EK Queen Trunk location for Plains All American Pipeline, L.P. is recommended as presently flagged. If cultural resources are encountered at any time all activity should cease and the BLM Archaeologist notified immediately.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No. Field/Agency No. Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No. Field/Agency No. Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG (site form required)

Sites Discovered (site form required):

Previously recorded sites (Site update form required):

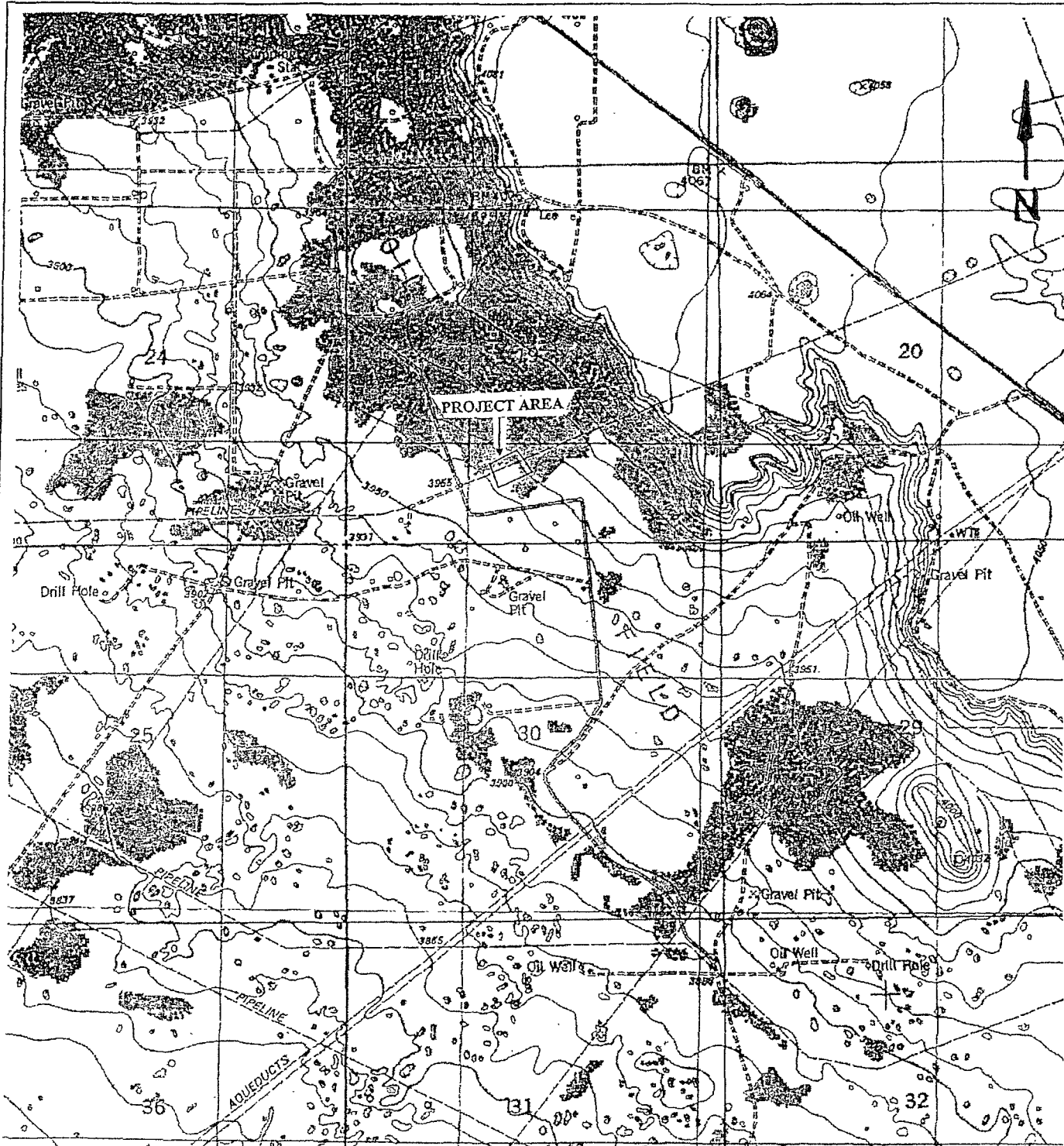
LA No. Field/Agency No. LA No. Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG (site form required)

Tested LA number(s)

Excavated LA number(s)



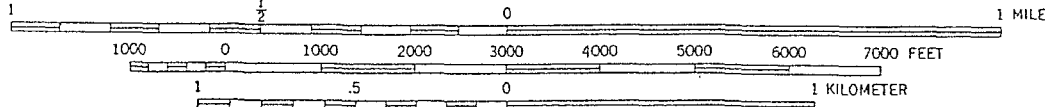
Location Map

BAS 08-07-12

EK Queen Trunk location for Plains All American Pipeline in Section 19, T 18S, R 34E, NMPM, Lea County, New Mexico.

Map Reference: USGS 7.5' Series; IRONHOUSE WELL, NM (1984) 32103-G8

SCALE 1:24 000



APPENDIX G

NMOCD C-141 Reports

Initial C-141 Report

Final C-141 Report

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Plains Pipeline	Contact Camille Reynolds
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965
Facility Name E.K. Queen 6 Inch Trunk line	Facility Type 6" Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter N	Section 19	Township 18S	Range 34E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32° 43' 44.1"

Longitude 103° 36' 01.3"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 90 barrels	Volume Recovered 70 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 01/11/2007 @ 11:30	Date and Hour of Discovery 01/11/2007 @ 11:52
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Camille Reynolds	Date and Hour 01/11/2007 @ 15:28	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken Internal corrosion of the 6 inch steel pipeline resulted in release of sweet crude oil. The line is a 6-inch steel gathering line that produces approximately 433 barrels of oil per day. The pressure on the line is approximately 150 psi and the gravity of the sweet crude oil is 42. The sweet crude has an H₂S content of <10 ppm. The line is approximately 1.5 feet bgs at the release point.

Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic.

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: <i>Camille Reynolds</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor: <i>[Signature]</i>	
Title: Remediation Coordinator	Approval Date: 5.29.07	Expiration Date: 7.29.07
E-mail Address: cgreynolds@paalp.com	Conditions of Approval: <i>[Signature]</i>	
Date: 01/16/2007	Phone: 505-441-0965	Attached ☐

* Attach Additional Sheets If Necessary

Facility - PPAC0715031397
incident - nPAC0715032756
application - pPAC0715032887

RP # 1167

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Plains Pipeline	Contact: Camille Reynolds
Address: 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No.: 505-441-0965
Facility Name: E.K. Queen 6 Inch Trunk line	Facility Type: 6" Steel Pipeline

Surface Owner: BLM	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter N	Section 19	Township 18S	Range 34E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32°43'44.1"N Longitude 103°36'01.3"W

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 90 barrels	Volume Recovered: 70 barrels
Source of Release: 6" Steel Pipeline	Date and Hour of Occurrence 01/11/2007 @ 11.30	Date and Hour of Discovery 01/11/2007 @ 11.57
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Camille Reynolds	Date and Hour: 01/11/2007 @ 15:28	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully *

N/A

Describe Cause of Problem and Remedial Action Taken.* ☐ Internal corrosion of the 6 inch steel pipeline resulted in release of sweet crude oil. The line is a 6 inch steel gathering line that produces approximately 433 barrels of oil per day. The pressure on the line is approximately 150 psi and the gravity of the sweet crude oil is 42. The sweet crude has an H2S content of <10 ppm. The line is approximately 1.5 feet bgs at the release point

Describe Area Affected and Cleanup Action Taken.* ☐ The estimated area of impact is approximately 16,000 square feet of surface area. The crude oil release was excavated: impacted soil was placed adjacent to the excavation, confirmation soil samples were collected from the floor & walls of the excavation. Once confirmation samples were below NMOCD regulatory standards, the excavation site was backfilled with imported fill material. A backhoe, bulldozer and loader were utilized to restore the site to natural grade.

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: <i>Camille Reynolds</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor: <i>Pat Richards</i>	COMPLIANCE OFFICER
Title: Remediation Coordinator	Approval Date: <i>1/17/08</i>	Expiration Date: <i>in absence of Larry Johnson</i>
E-mail Address: cgreynolds@paalp.com	Conditions of Approval:	Attached ☐
Date: 11/27/2007 Phone: 505-441-0965		

* Attach Additional Sheets If Necessary