1R - 471

REPORT

DATE:

MAY 2007

1R-471
Report
May 2007

PLAINS
PIPELINE, L.P.

August 13, 2007

Mr. Wayne Price
State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline, L.P.
Document Submittal – Nine Soil Closure Reports
Clay Osborn - Rocky Top Ranch
Jal, Lea County, New Mexico

Dear Mr. Price:

Plains Pipeline, L.P. (Plains) is pleased to submit the attached Soil Closure Reports for the nine soil remediation project sites located on the Osborn's Rocky Top Ranch in Jal, Lea County, New Mexico. The soil remediation activities were conducted in accordance with the General Remediation Work Plan (dated April 2006) and the Site-Specific Remediation Work Plan (dated July 2006) prepared for each site and approved by the New Mexico Oil Conservation Division (NMOCD).

Based on the analytical laboratory results of confirmation soil samples and completion of the site-specific soil remediation and restoration activities as described in each Work Plan, remediation activities are complete and Plains requests that the NMOCD issue Plains a "no further action letter" and close these nine sites listed below.

Clay Osborn Jalmat #1	1R-0412
Clay Osborn Jalmat #2	1R-0466
Clay Osborn Jalmat #3	1R-0467
Clay Osborn Jalmat #22A	1R-0411
Clay Osborn Jalmat #22B	1R-0468
Clay Osborn East Shell North	1R-0083
Clay Osborn SH-0193-2	1R-0471
Clay Osborn SH-0184-1	1R-0472
Clay Osborn DT-27	1R-0470

Please note that site "Clay Osborn TM-245-2 (1R-0469)" was combined into site "Jalmat #22B" since the sites were immediately adjacent to each other. A separate report was not prepared for TM-245-2.

Should you have any questions or comments, please contact me at (713) 646-4657.

Sincerely,

Jeffrey P. Dann, P.G.
Sr. Environmental Specialist
Plains All American

Attachment: Nine Soil Closure Reports

File: n/jeff-files/Osborn-RockyTopRanch/DocumentClosureReptCovrLtr.doc

Report Entered

Site Closure Report

Clay Osborn Rocky Top Ranch
SH-0193-2 Release Site

NE¼ SE¼, Section 12
T25S, R36E
Lea County, New Mexico

SRS No. ROCKY TOP 1
NMOCD No. 1R-0471

Prepared For

PLAINS
PIPELINE, L.P.

333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By

SDG ENVIRONMENTAL SERVICES

May 2007

Table of Contents

1.0 Introduction

SDG Environmental Services was retained by Plains Pipeline, L.P. (Plains) to provide oversight of remediation activities and prepare a closure report for the Clay Osborn SH-0193-2 release site located on the Clay Osborn Rocky Top Ranch. Plains Pipeline is the owner/operator of several pipelines preset on the Clay Osborn Rocky Top Ranch in Lea County, New Mexico. Plains retained Basin Environmental Services to conduct the soil excavation/remediation activities.

The site is located in the NE ¼ of the SE ¼ of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°08′30″ North, and Longitude 103°12′45″ West. A site location map is provided as Figure 1.

The hydrocarbon impacted area was the result of a historical release, although there is no indication of a pipeline in the immediate area of the release. The date of the release as well as the volume of crude released and recovered is not known. The SH-0193-2 Site which was initially characterized by an area of surface staining.

Plains prepared and submitted a General Remediation Work Plan dated April 2006 to address the release sites located at the Rocky Top Ranch. The objective of the General Remediation Work Plan was to provide a framework for remediation of crude oil impacted sites consistent with the remediation/abatement goals and objectives provided in the New Mexico Oil Conservation Division (NMOCD) "NMOCD Guidelines for Remediation of Leaks, Spills, and Releases." The general Remediation Work Plan was conditionally approved by the NMOCD in a letter to Plains dated May 30, 2006.

The General Remediation Work Plan provided for closure of the site under three possible closure scenarios dependent on the conditions observed in the field. These closure scenarios are as follows.

Work Plan Scenario 1 (Surface Restoration)

This scenario was developed for sites where investigation data indicates that the surface area has restored itself naturally, the surface expression of the release is difficult to identify, the impacts are limited to the surface and/or shallow soils, and there is no threat to groundwater.

- Scrape the surface asphaltines where apparent and remove;
- Blend the underlying 1 to 2 feet of soil with native soil and contour;
- Do not disturb areas that have already re-vegetated.

Work Plan Scenario 2 (Total Excavation)

Areas where impacts greater than 100 mg/kg TPH were limited in vertical extent (i.e. 5 to 10 feet in depth) were recommended to be remediated under the Work Plan Scenario 2 involving the following procedures as outlined in the approved Work Plan including NMOCD conditions presented in the May 2006 NMOCD approval letter.

- Excavation of impacted soil to between 5 to 10 feet bgs or until site remediation standards are met;

• Collect and analyze soil sample from the walls and floor of the excavation to confirm that the remediation has met site guidelines;
• Relocation of excavated soil to the centralized soil treatment area for blending and aeration;
• Collect and analyze treated soil to confirm that the soil treatment activities have met site guidelines;
• Backfill the excavation with treated soil to 100 mg/kg and restore the area to as close as possible to pre-spill conditions.

One area near the eastern boundary of the site was excavated to 5 ft bgs and soil samples collected from the bottom of the excavation. Soils were excavated with a bulldozer and therefore there were no distinct vertical sidewalls. Soil samples were collected from the bottom of the excavation at side of impacted area defined by the highest PID reading and observed staining.

Work Plan Scenario 3 (Limited Excavation and Risk-based Closure)

At areas of the site where data indicates that soil impacts extend to below 10 feet bgs and excavation of all the impacted soil to below NMOCD guidelines is not practical, Work Plan Scenario 3 was implemented.

Scenario 3 includes the permanent installation of an oversized 20-mil polyethylene liner at a minimum depth of 10 feet to inhibit vertical migration of contaminants in soil left in place below the cap. A 3-foot wide clean area buffer was established around the impacted soil in the floor of the excavation. The buffer extent was determined using a calibrated PID and confirmed by laboratory analysis of grab samples collected around the perimeter of the excavation. The liner was cushioned above and below with a 3 to 4-inch layer of sand to protect it from puncture and tearing during the backfilling process. Installation of the 20-mil polyethylene liner at a minimum depth of 10 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminates in the soil.

Clean overburden and impacted soils were blended and utilized as backfill. Soil samples were collected to verify constituent concentrations were below NMOCD site-specific guidelines. Once the excavation was confirmed to meet NMOCD standards or the installation of the 20-mil poly liner was completed, backfilling of the excavation was initiated with the blended soil. The backfilled excavation was contoured to the original grade surrounding the site and restored by seeding with approved grass seed.

An initial investigation that included installation of soil borings and collection and analysis of soil samples was conducted by SDG in May 2006. The soil analytical data and information obtained from the site investigation was used to develop a Site Investigation Report and Site-Specific Remediation Work Plan. The Site-Specific Remediation Work Plan dated July 2006 provided for closure of the site under Closure Scenario 2.

2.0 Regulatory Framework

In New Mexico, the MNOCD oversees and regulates oil, gas and geothermal activities, including compliance with environmental regulations. The SH-0193-2 Site was evaluated and remediated consistent with the characterization and remediation/abatement goals and objectives of the NMOCD approved General Remediation Work Plan and the NMOCD guidelines defined in the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases* (August 13, 1993). Primary contaminants, or constituents of concern (COCs), associated with crude oil releases include total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, and total xylenes (BTEX). Acceptable levels for these COCs are determined based on a site ranking system. The ranking system estimates the likelihood of exposures to the COCs. The more likely that human exposure will occur, the more stringent the cleanup levels. The site ranking system is set up on the three following parameters:

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

3.0 Regional and Site Characteristics

3.1 Geological Description

The site is located east of the caprock escarpment which defines the western margin of the high plains or Llano Estacado of southeastern New Mexico. The surface is comprised of rolling hills with sand dunes of Quaternary age deposits, eroded Ogallala Formation and windblown deposits.

3.2 Land Use

Land usage in the area is primarily livestock range land and oil field activities. Several gas driven electric power stations are located in the vicinity of the site and several major oil and gas transmission lines bisect the region. The area in the immediate vicinity of the site is sparsely populated.

3.3 Ground Water

The depth to groundwater at the site is approximately 50 feet below ground surface (bgs) based on measured depth to groundwater at monitor wells located at the adjacent release site. The depth to groundwater is consistent with the information provided in the USGS Groundwater Report 6 and the New Mexico Office of the State Engineer database does not list any water wells in Range 36 East of Township 25 South.

4.0 NMOCD Site Ranking

The depth to water at the site is estimated to be approximately 50 feet bgs based on monitor wells located at a nearby adjacent release site. Based on the analytical results of soil samples, the hydrocarbon impacted soil extends from the surface to 5 feet bgs, therefore, less than 50 feet of non-impacted soil remains between the last known impacted soil depth and groundwater. The resulting Depth to Groundwater Ranking Score is 20.

The site is greater than 1000 ft from any public water supply source and greater than 200 feet from any private domestic water supply well. The resulting Wellhead Protection Ranking Score is 0.

There are no water bodies located within 1000 ft of the site. The resulting Distance to Surface Water Body Ranking Score is 0.

Based on the individual ranking scores identified above, the site has an NMOCD Total Ranking Score of >19, which establish the following remediation levels:

The following table demonstrates the site ranking matrix:

Table 1 – Site Ranking Matrix

Depth to Groundwater	**Wellhead Protection Area**	**Distance to Surface Water**
<50 feet = 20	<1000 feet from a water source, or <200 feet from a domestic water source	<200 feet = 20
50 to 99 feet = 10	Yes = 20	200 to 1000 feet = 10
>100 feet = 0	No = 0	>1000 feet = 0
Groundwater Score = 20	Well Protection Score = 0	Surface Water Score = 0
Total Site Ranking Score = 20		
Parameter	**Score of >19 Maximum Concentrations**	
Benzene	10 ppm	
BTX	50 ppm	
TPH	100 ppm	

Based on this ranking system the site has a total score of 20 resulting in remediation goals of 10 ppm benzene, 50 ppm BTEX and 100 ppm TPH were observed.

5.0 Site Assessment

On 25 May 2006, initial subsurface horizontal and vertical delineation was conducted by SDG with the installation of 4 soil borings installed at the site. The results of the investigation were presented in the July 2006 Site Investigation Report and Site-Specific

Remediation Work Plan which was submitted to the NMOCD. Soil borings were installed to a depth of 20 feet bgs and soil samples were collected at depths of 2, 5, 10, 15, and 20 feet bgs, field screened with a PID, and analyzed for BTEX and TPH. The soil boring in the center of the visibly impacted area was advanced to 25 feet bgs and a sample collected. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits on the 21 soil samples. Laboratory results indicated that TPH concentrations exceeded 100 mg/kg TPH in 4 of the soil samples and the remaining 17 soil samples did not exhibit TPH concentrations above the laboratory method detection limits.

5.1 Distribution of Hydrocarbons in the Unsaturated Zone

The area of soils remediated was approximately 7,000 square feet. The vertical extent of soils impacted above the site specific NMOCD cleanup guidelines was determined to be limited to the surface to less than 10 feet bgs. No free phase hydrocarbons were observed during the excavation.

5.2 Distribution of Hydrocarbons in the Saturated Zone

No saturated conditions were reported in any of the borings or observed during later site remediation activities. Monitor wells installed by others at a nearby unrelated release site have recorded water levels of approximately 50 feet bgs. Therefore, there is no indication that hydrocarbons from the SH-0193-2 historical release have impacted the saturated zone.

6.0 Site Remediation

The final surface area remediated was approximately 7,000 square feet. The volume of excavated and blended soils totaled 1,032 cubic yards. The remediated area is shown in Figure 2.

The area was excavated to a depth of three to ten feet bgs with a bulldozer. The soils were screened using a PID and confirmation soil samples collected from the locations of the highest PID readings.

The overburden and impacted soils were blended, stockpiled, sampled, and utilized as backfill. Soil samples of blended soils were collected to verify constituent concentrations are below the site-specific NMOCD guidelines.

After determining that the confirmation samples did not exceed the site-specific remediation standards, the excavated area was backfilled with blended soils meeting the cleanup guidelines for the closure scenario, topped with clean soils obtained from the landowner, contoured to the original grade surrounding the site, and reseeded with approved grass seed.

7.0 Confirmation Sampling and Comparison to Remediation Guideline Standards

Confirmation samples were collected from the walls and the bottom of the excavation and submitted to Environmental Lab of Texas for laboratory analyses of total petroleum hydrocarbons (TPH) by EPA Method 8015M (DRO, GRO), and for benzene, toluene, ethyl benzene, and total xylenes (BTEX) by EPA Method 8021B, a copy of the laboratory report is presented in Appendix C. A site detail map identifying soil sample locations is presented as Figure 2. Table 2 provides a summary of the analytical results.

Laboratory results from the initial 13 soil confirmation samples indicated TPH concentrations of soils remaining in the area excavated under Scenario 2 were less than the detection limit of <10 mg/kg except for one sample collected from the east wall at a depth of two feet bgs (Sample ID RT1-S3). Additional excavation was conducted in this area and a second confirmation sample collected. An additional confirmation sample was collected (Sample ID RT1-S3). The final confirmation results indicated TPH concentration were non-detect (<10 mg/kg). Laboratory analyses of BTEX constituents from all samples were below the detection limit of 0.025 mg/kg, a summary of the analytical results is presented in Table 2.

Sample results were compared to the site-specific soil remediation guidelines. As indicated in Table 2 and the laboratory report, all constituents for soils remaining in place are below the site-specific cleanup guidelines for the closure scenario implemented at the site. Therefore, remediation at this site is considered complete.

8.0 Conclusion

SDG Environmental Services was retained by Plains Pipeline, L.P. (Plains) to provide oversight of remediation activities and prepare a closure report for the Clay Osborn SH-0193-2 release site located on the Clay Osborn Rocky Top Ranch. The site is located in the NE ¼ of the SE ¼ of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°08′30″ North, and Longitude 103°12′45″ West.

The hydrocarbon impacted area was the result of a historical release. The date of the release as well as the volume of crude released and recovered is not known. A Site-Specific Remediation Work Plan dated July 2006 provided for closure of the site under three closure scenarios which were implemented at the SH-0193-2 release site in December 2006 through March 2007.

Impacted soils were excavated and confirmation samples were collected and compared to the site-specific cleanup guidelines. Soil samples from the excavated areas confirm that the SH-0193-2 release site was remediated per the NMOCD approved Site-Specific Work Plan. After determining that the confirmation samples did not exceed the site-specific remediation standards, the excavated area was backfilled with blended soils meeting the cleanup guidelines, topped with clean soils obtained from the landowner, contoured to the original grade surrounding the site, and reseeded with approved grass seed.

Therefore, remediation at this site has been completed and no further investigation is warranted. SDG recommends that Plains submit a copy of this report to the NMOCD and request that the NMOCD close this case and issue a "no further action letter" to Plains.

TABLE 2

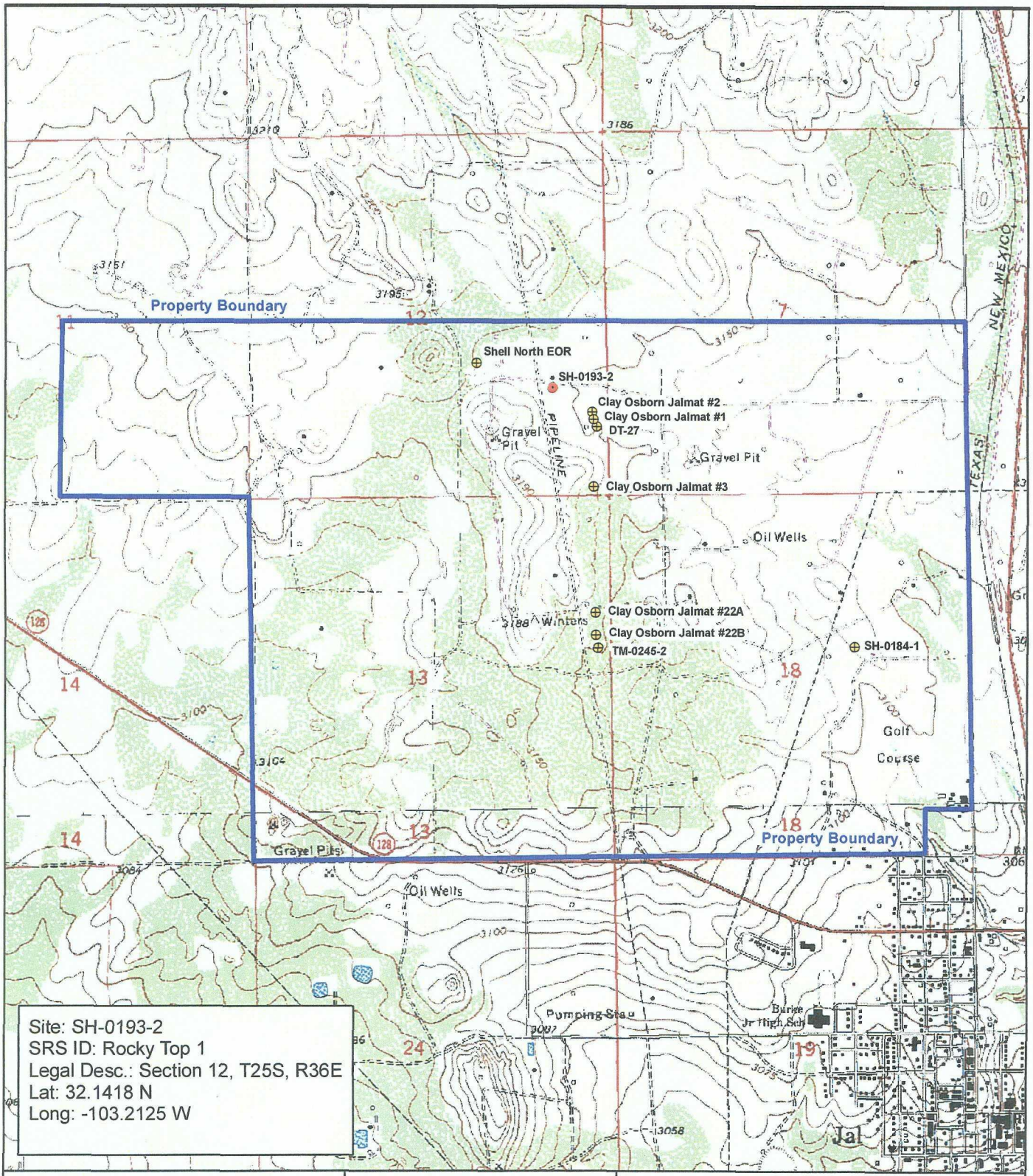
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

PLAINS PIPELINE, L.P.
Project: SH-0193-2
LEA COUNTY, NEW MEXICO
PLAINS SRS ID: Rocky Top 1

SAMPLE LOCATION	DEPTH ft bgs	SAMPLE DATE	LABORATORY I.D.	METHOD: EPA 8021B					METHOD: EPA 8015M			TOTAL TPH
				BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	C6-C12 (mg/kg)	C12-C28 (mg/kg)	C28-C35 (mg/kg)	C6-C35 (mg/kg)
RT1-F1	10	12/5/2006	6L06002-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S1	2	12/5/2006	6L06002-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S2	2	12/5/2006	6L06002-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S3	2*	12/5/2006	6L06002-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	121	20.4	141
RT1-S4	10	12/5/2006	6L06002-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S5	5	12/5/2006	6L06002-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-SP1	Stockpile	12/5/2006	6L06002-07	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	155	7.99 J	155
RT1-SP2	Stockpile	12/6/2006	6L07003-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S6	5	12/6/2006	6L07003-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S7	2	12/6/2006	6L07003-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-S8	2	12/6/2006	6L07003-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	63.3	6.38 J	63.3
RT1-F2	10	12/6/2006	6L07003-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-N1	2	12/6/2006	6L07003-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-N2	5	12/6/2006	6L07003-07	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-N3	2	12/6/2006	6L07003-08	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
RT1-253	2	12/19/2006	6L19012-01	na	na	na	na	na	<10.0	<10.0	<10.0	<10.0

* Indicates an interim sample - soils represented by this sample were subsequently removed
< indicates the constituent was not detected
J indicates estimated value (detected below method reporting limit
na indicates not analyzed

Appendix A
Figures

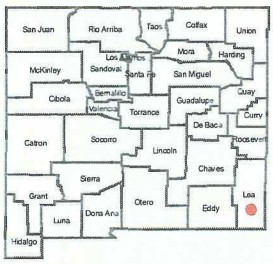


Map Source: USGS, Jal NW New Mexico Topographic Map, 1980.

0 1,000 2,000

Feet

N

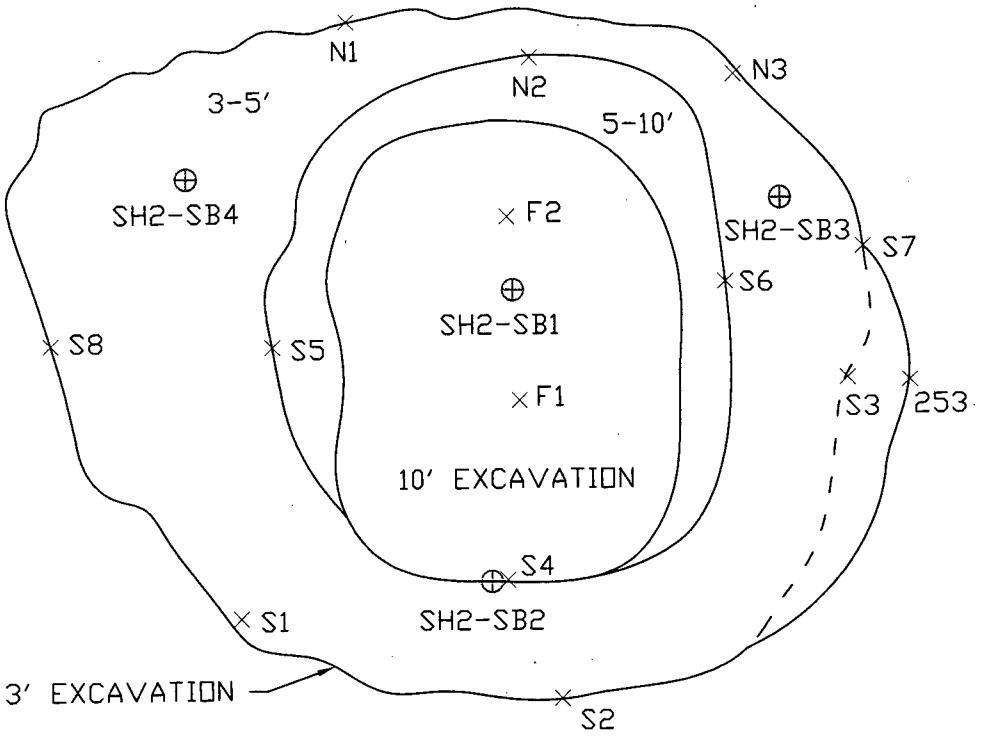


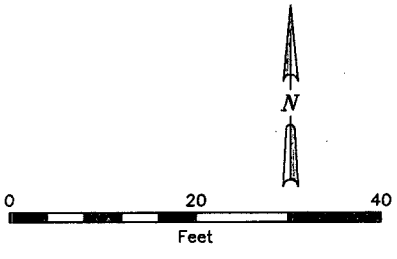
GLACIER FOX GIS INC

SDG ENVIRONMENTAL SERVICES

SH-0193-2
SRS ID: Rocky Top 1
Plains Marketing L.P.
Lea County, New Mexico

Figure 1: Site Location Map





LEGEND:

- ⊕ Soil Boring Locations
- × Soil Sample Locations
- – – Interim Boundary
- —— Final Excavation Boundary

SDG ENVIRONMENTAL SERVICES

Rocky Top Ranch
Clay Osborn SH-0193-2
SRS ID: Rocky Top 1
Lea County, New Mexico

Figure 2: Excavation Locations

Appendix B
Site Photographs

SH-0193-2 - Excavation and sample locations. Photo facing north

SH-0193-2 – Backfill prior to final soil cover and grade. Photo facing south

SH-0193-2 – Final soil cover and grade. Photo facing south

Appendix C
Analytical Reports

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: SH-0193-2

Project Number: Rocky Top 1

Location: Clay Osborn Ranch

Lab Order Number: 6L06002

Report Date: 12/15/06

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

Project: SH-0193-2
Project Number: Rocky Top 1
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RT1- F1	6L06002-01	Soil	12/05/06 13:25	12-05-2006 17:00
RT1- S1	6L06002-02	Soil	12/05/06 13:35	12-05-2006 17:00
RT1- S2	6L06002-03	Soil	12/05/06 13:37	12-05-2006 17:00
RT1- S3	6L06002-04	Soil	12/05/06 13:45	12-05-2006 17:00
RT1- S4	6L06002-05	Soil	12/05/06 13:50	12-05-2006 17:00
RT1- S5	6L06002-06	Soil	12/05/06 13:55	12-05-2006 17:00
RT1- SP1	6L06002-07	Soil	12/05/06 14:15	12-05-2006 17:00

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- F1 (6L06002-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/08/06	12/12/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*84.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*107 %*	*70-130*		"	"	"	"	
RT1- S1 (6L06002-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60810	12/08/06	12/11/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*124 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*126 %*	*70-130*		"	"	"	"	
RT1- S2 (6L06002-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60810	12/08/06	12/12/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	

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

Project: SH-0193-2
Project Number: Rocky Top 1
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
RT1- S2 (6L06002-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*120 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*124 %*	*70-130*		"	"	"	"	
RT1- S3 (6L06002-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60810	12/11/06	12/12/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	**121**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**20.4**	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**141**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
RT1- S4 (6L06002-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60810	12/08/06	12/12/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*97.0 %*	*70-130*		"	"	"	"	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- S5 (6L06002-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60810	12/08/06	12/13/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*94.6 %*	*70-130*		"	"	"	"	
RT1- SP1 (6L06002-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60618	12/06/06	12/07/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60616	12/06/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	**155**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**J [7.99]**	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	**155**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*124 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*130 %*	*70-130*		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- F1 (6L06002-01) Soil									
% Moisture	**21.7**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- S1 (6L06002-02) Soil									
% Moisture	**15.2**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- S2 (6L06002-03) Soil									
% Moisture	**5.0**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- S3 (6L06002-04) Soil									
% Moisture	**8.8**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- S4 (6L06002-05) Soil									
% Moisture	**18.8**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- S5 (6L06002-06) Soil									
% Moisture	**5.5**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	
RT1- SP1 (6L06002-07) Soil									
% Moisture	**4.8**	0.1	%	1	EL60615	12/06/06	12/07/06	% calculation	

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Organics by GC - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60616 - Solvent Extraction (GC)										
Blank (EL60616-BLK1)				Prepared: 12/06/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*46.2*		*mg/kg*	*50.0*		*92.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*39.0*		*"*	*50.0*		*78.0*	*70-130*			
LCS (EL60616-BS1)				Prepared: 12/06/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	431	10.0	mg/kg wet	500		86.2	75-125			
Carbon Ranges C12-C28	395	10.0	"	500		79.0	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	826	10.0	"	1000		82.6	75-125			
Surrogate: 1-Chlorooctane	*54.7*		*mg/kg*	*50.0*		*109*	*70-130*			
Surrogate: 1-Chlorooctadecane	*44.9*		*"*	*50.0*		*89.8*	*70-130*			
Calibration Check (EL60616-CCV1)				Prepared: 12/06/06 Analyzed: 12/08/06						
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	272		"	250		109	80-120			
Total Hydrocarbons	474		"	500		94.8	80-120			
Surrogate: 1-Chlorooctane	*55.3*		*"*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.8*		*"*	*50.0*		*108*	*70-130*			
Matrix Spike (EL60616-MS1)	**Source: 6L06002-05**			Prepared: 12/06/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	634	10.0	mg/kg dry	616	ND	103	75-125			
Carbon Ranges C12-C28	579	10.0	"	616	ND	94.0	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1210	10.0	"	1230	ND	98.4	75-125			
Surrogate: 1-Chlorooctane	*61.6*		*mg/kg*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.3*		*"*	*50.0*		*129*	*70-130*			

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 EL60616 - Solvent Extraction (GC)										
Matrix Spike Dup (EL60616-MSD1)	**Source: 6L06002-05**			Prepared: 12/06/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	648	10.0	mg/kg dry	616	ND	105	75-125	1.92	20	
Carbon Ranges C12-C28	572	10.0	"	616	ND	92.9	75-125	1.18	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1220	10.0	"	1230	ND	99.2	75-125	0.810	20	
Surrogate: 1-Chlorooctane	*62.7*		*mg/kg*	*50.0*		*125*	*70-130*			
Surrogate: 1-Chlorooctadecane	*63.3*		"	*50.0*		*127*	*70-130*			
Batch EL60618 - EPA 5030C (GC)										
Blank (EL60618-BLK1)				Prepared & Analyzed: 12/06/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*38.7*		*ug/kg*	*40.0*		*96.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.5*		"	*40.0*		*88.8*	*80-120*			
LCS (EL60618-BS1)				Prepared & Analyzed: 12/06/06						
Benzene	1.13	0.0250	mg/kg wet	1.25		90.4	80-120			
Toluene	1.14	0.0250	"	1.25		91.2	80-120			
Ethylbenzene	1.23	0.0250	"	1.25		98.4	80-120			
Xylene (p/m)	2.22	0.0250	"	2.50		88.8	80-120			
Xylene (o)	1.12	0.0250	"	1.25		89.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.3*		*ug/kg*	*40.0*		*80.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.2*		"	*40.0*		*90.5*	*80-120*			

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 EL60618 - EPA 5030C (GC)										
Calibration Check (EL60618-CCV1)				Prepared & Analyzed: 12/06/06						
Benzene	54.8		ug/kg	50.0		110	80-120			
Toluene	53.1		"	50.0		106	80-120			
Ethylbenzene	56.0		"	50.0		112	80-120			
Xylene (p/m)	98.5		"	100		98.5	80-120			
Xylene (o)	51.6		"	50.0		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.8*		*"*	*40.0*		*92.0*	*80-120*			
Matrix Spike (EL60618-MS1)		**Source: 6L01018-03**		Prepared: 12/06/06 Analyzed: 12/07/06						
Benzene	1.49	0.0250	mg/kg dry	1.42	ND	105	80-120			
Toluene	1.55	0.0250	"	1.42	ND	109	80-120			
Ethylbenzene	1.65	0.0250	"	1.42	ND	116	80-120			
Xylene (p/m)	2.99	0.0250	"	2.85	ND	105	80-120			
Xylene (o)	1.56	0.0250	"	1.42	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	*34.1*		*ug/kg*	*40.0*		*85.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*40.0*		*118*	*80-120*			
Matrix Spike Dup (EL60618-MSD1)		**Source: 6L01018-03**		Prepared: 12/06/06 Analyzed: 12/07/06						
Benzene	1.53	0.0250	mg/kg dry	1.42	ND	108	80-120	2.82	20	
Toluene	1.57	0.0250	"	1.42	ND	111	80-120	1.82	20	
Ethylbenzene	1.68	0.0250	"	1.42	ND	118	80-120	1.71	20	
Xylene (p/m)	3.07	0.0250	"	2.85	ND	108	80-120	2.82	20	
Xylene (o)	1.58	0.0250	"	1.42	ND	111	80-120	0.905	20	
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*ug/kg*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*40.0*		*118*	*80-120*			
Batch EL60707 - EPA 5030C (GC)										
Blank (EL60707-BLK1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/kg*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.9*		*"*	*40.0*		*89.8*	*80-120*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60707 - EPA 5030C (GC)										
LCS (EL60707-BS1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Benzene	1.17	0.0250	mg/kg wet	1.25		93.6	80-120			
Toluene	1.15	0.0250	"	1.25		92.0	80-120			
Ethylbenzene	1.37	0.0250	"	1.25		110	80-120			
Xylene (p/m)	2.18	0.0250	"	2.50		87.2	80-120			
Xylene (o)	1.07	0.0250	"	1.25		85.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.8*		*ug/kg*	*40.0*		*82.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.6*		*"*	*40.0*		*81.5*	*80-120*			
Calibration Check (EL60707-CCV1)				Prepared: 12/07/06 Analyzed: 12/11/06						
Benzene	43.8		ug/kg	50.0		87.6	80-120			
Toluene	44.0		"	50.0		88.0	80-120			
Ethylbenzene	47.6		"	50.0		95.2	80-120			
Xylene (p/m)	86.2		"	100		86.2	80-120			
Xylene (o)	43.1		"	50.0		86.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.2*		*"*	*40.0*		*83.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.0*		*"*	*40.0*		*92.5*	*80-120*			
Matrix Spike (EL60707-MS1)	**Source: 6L05006-08**			Prepared: 12/07/06 Analyzed: 12/12/06						
Benzene	1.03	0.0250	mg/kg dry	1.28	ND	80.5	80-120			
Toluene	1.03	0.0250	"	1.28	ND	80.5	80-120			
Ethylbenzene	1.04	0.0250	"	1.28	ND	81.2	80-120			
Xylene (p/m)	2.13	0.0250	"	2.56	ND	83.2	80-120			
Xylene (o)	1.05	0.0250	"	1.28	ND	82.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.3*		*ug/kg*	*40.0*		*83.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		*"*	*40.0*		*81.2*	*80-120*			
Matrix Spike Dup (EL60707-MSD1)	**Source: 6L05006-08**			Prepared: 12/07/06 Analyzed: 12/11/06						
Benzene	1.03	0.0250	mg/kg dry	1.28	ND	80.5	80-120	0.00	20	
Toluene	1.06	0.0250	"	1.28	ND	82.8	80-120	2.82	20	
Ethylbenzene	1.24	0.0250	"	1.28	ND	96.9	80-120	17.6	20	
Xylene (p/m)	2.10	0.0250	"	2.56	ND	82.0	80-120	1.45	20	
Xylene (o)	1.03	0.0250	"	1.28	ND	80.5	80-120	1.85	20	
Surrogate: a,a,a-Trifluorotoluene	*32.5*		*ug/kg*	*40.0*		*81.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		*"*	*40.0*		*82.0*	*80-120*			

Organics by GC - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60810 - EPA 5030C (GC)										
Blank (EL60810-BLK1)				Prepared: 12/08/06 Analyzed: 12/12/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*35.5*		*ug/kg*	*40.0*		*88.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.5*		*"*	*40.0*		*83.8*	*80-120*			
LCS (EL60810-BS1)				Prepared: 12/08/06 Analyzed: 12/12/06						
Benzene	1.03	0.0250	mg/kg wet	1.25		82.4	80-120			
Toluene	1.01	0.0250	"	1.25		80.8	80-120			
Ethylbenzene	1.23	0.0250	"	1.25		98.4	80-120			
Xylene (p/m)	2.07	0.0250	"	2.50		82.8	80-120			
Xylene (o)	1.02	0.0250	"	1.25		81.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.6*		*ug/kg*	*40.0*		*89.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.2*		*"*	*40.0*		*85.5*	*80-120*			
Calibration Check (EL60810-CCV1)				Prepared: 12/08/06 Analyzed: 12/12/06						
Benzene	43.1		ug/kg	50.0		86.2	80-120			
Toluene	41.3		"	50.0		82.6	80-120			
Ethylbenzene	42.8		"	50.0		85.6	80-120			
Xylene (p/m)	81.2		"	100		81.2	80-120			
Xylene (o)	40.0		"	50.0		80.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.5*		*"*	*40.0*		*88.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.3*		*"*	*40.0*		*80.8*	*80-120*			
Matrix Spike (EL60810-MS1)	**Source: 6L07002-01**			Prepared: 12/08/06 Analyzed: 12/12/06						
Benzene	1.08	0.0250	mg/kg dry	1.28	ND	84.4	80-120			
Toluene	1.08	0.0250	"	1.28	ND	84.4	80-120			
Ethylbenzene	1.11	0.0250	"	1.28	ND	86.7	80-120			
Xylene (p/m)	2.25	0.0250	"	2.56	ND	87.9	80-120			
Xylene (o)	1.09	0.0250	"	1.28	ND	85.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.1*		*ug/kg*	*40.0*		*87.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.4*		*"*	*40.0*		*96.0*	*80-120*			

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Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60810 - EPA 5030C (GC)										
Matrix Spike Dup (EL60810-MSD1)	**Source: 6L07002-01**			Prepared: 12/08/06 Analyzed: 12/12/06						
Benzene	1.10	0.0250	mg/kg dry	1.28	ND	85.9	80-120	1.76	20	
Toluene	1.09	0.0250	"	1.28	ND	85.2	80-120	0.943	20	
Ethylbenzene	1.05	0.0250	"	1.28	ND	82.0	80-120	5.57	20	
Xylene (p/m)	2.24	0.0250	"	2.56	ND	87.5	80-120	0.456	20	
Xylene (o)	1.09	0.0250	"	1.28	ND	85.2	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	*34.4*		*ug/kg*	*40.0*		*86.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.2*		*"*	*40.0*		*93.0*	*80-120*			

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

Project: SH-0193-2
Project Number: Rocky Top 1
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
Batch EL60615 - General Preparation (Prep)										
Blank (EL60615-BLK1)				Prepared: 12/06/06 Analyzed: 12/07/06						
% Solids	100		%							
Duplicate (EL60615-DUP1)		**Source: 6L06001-01**		Prepared: 12/06/06 Analyzed: 12/07/06						
% Solids	78.3		%		79.0			0.890	20	
Duplicate (EL60615-DUP2)		**Source: 6L06007-02**		Prepared: 12/06/06 Analyzed: 12/07/06						
% Solids	88.8		%		89.3			0.561	20	
Duplicate (EL60615-DUP3)		**Source: 6L06007-22**		Prepared: 12/06/06 Analyzed: 12/07/06						
% Solids	89.3		%		94.4			5.55	20	

Notes and Definitions

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

Report Approved By: Raland K Tuttle Date: 12/15/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds

Company Name: Plains Pipeline, LP

Company Address:

City/State/Zip:

Telephone No:

Fax No:

Sampler Signature: [signature]

e-mail: kcody@sdgenv.com

Project Name: SH-0193-2

Project #: Rocky Top 1

Project Loc: Clay Osborn Ranch

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6L06002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix (DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other)	TPH: 418.1 (8015M) 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX (8021B/5030) or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, (48), 72 hrs	Standard TAT
01	RT1-F1			12/5/06	1325			X								S	X								X				X
02	RT1-S1				1335			X								S	X								X				X
03	RT1-S2				1337			X								S	X								X				X
04	RT1-S3				1345			X								S	X								X				X
05	RT1-S4				1350			X								S	X								X				X
06	RT1-S5				1355			X								S	X								X				X
07	RT1-SP1				1415			X								S	X								X			X	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	12/5/06	17:00			
Relinquished by:			Received by:		
Relinquished by:			Received by ELOT: [signature]	12-5-06	1700

Laboratory Comments: RG

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s)	(Y)	N
Custody seals on container(s)	Y	(N)
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep. ?	(Y)	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: 0.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 12/5/06 15:00

Lab ID #: 6L-065002

Initials: CL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	0.5 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	~~Not Applicable~~	
#20	VOC samples have zero headspace?	~~Yes~~	No	~~Not Applicable~~	

Variance Documentation

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

Regarding: _____

_____

Corrective Action Taken:

_____

_____

_____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: SH-0193-2

Project Number: Rocky Top 1

Location: Clay Osborn Ranch

Lab Order Number: 6L07003

Report Date: 12/15/06

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

Project: SH-0193-2
Project Number: Rocky Top 1
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RT1- SP2	6L07003-01	Soil	12/06/06 13:30	12-07-2006 08:00
RT1- S6	6L07003-02	Soil	12/06/06 14:05	12-07-2006 08:00
RT1- S7	6L07003-03	Soil	12/06/06 14:07	12-07-2006 08:00
RT1- S8	6L07003-04	Soil	12/06/06 14:10	12-07-2006 08:00
RT1- F2	6L07003-05	Soil	12/06/06 14:15	12-07-2006 08:00
RT1- N1	6L07003-06	Soil	12/06/06 14:25	12-07-2006 08:00
RT1- N2	6L07003-07	Soil	12/06/06 14:30	12-07-2006 08:00
RT1- N3	6L07003-08	Soil	12/06/06 14:35	12-07-2006 08:00

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- SP2 (6L07003-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/13/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*112 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*86.0 %*	*70-130*		"	"	"	"	
RT1- S6 (6L07003-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*107 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*100 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*89.0 %*	*70-130*		"	"	"	"	
RT1- S7 (6L07003-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*114 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	

Plains All American EH & S
1301 S. County Road 1150
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Project: SH-0193-2
Project Number: Rocky Top 1
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
RT1- S7 (6L07003-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*79.0 %*	*70-130*		"	"	"	"	
RT1- S8 (6L07003-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	
Carbon Ranges C12-C28	**63.3**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	**J [6.38]**	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	**63.3**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*81.6 %*	*70-130*		"	"	"	"	
RT1- F2 (6L07003-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/08/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*127 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*123 %*	*70-130*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- N1 (6L07003-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/09/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*91.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*80.2 %*	*70-130*		"	"	"	"	
RT1- N2 (6L07003-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60703	12/07/06	12/09/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*85.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*74.8 %*	*70-130*		"	"	"	"	
RT1- N3 (6L07003-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL61314	12/13/06	12/14/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60812	12/08/06	12/09/06	EPA 8015M	

Plains All American EH & S	Project: SH-0193-2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: Rocky Top 1	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- N3 (6L07003-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60812	12/08/06	12/09/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*83.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*70.8 %*	*70-130*		"	"	"	"	

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

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

Project: SH-0193-2
Project Number: Rocky Top 1
Project Manager: Camille Reynolds

Fax: (432) 687-4914

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- SP2 (6L07003-01) Soil									
% Moisture	**20.0**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- S6 (6L07003-02) Soil									
% Moisture	**7.2**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- S7 (6L07003-03) Soil									
% Moisture	**6.3**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- S8 (6L07003-04) Soil									
% Moisture	**7.0**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- F2 (6L07003-05) Soil									
% Moisture	**13.4**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- N1 (6L07003-06) Soil									
% Moisture	**7.8**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- N2 (6L07003-07) Soil									
% Moisture	**7.3**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	
RT1- N3 (6L07003-08) Soil									
% Moisture	**12.5**	0.1	%	1	EL60804	12/07/06	12/08/06	% calculation	

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

Project: SH-0193-2
Project Number: Rocky Top 1
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 EL60703 - Solvent Extraction (GC)										
Blank (EL60703-BLK1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*47.7*		*mg/kg*	*50.0*		*95.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*40.3*		*"*	*50.0*		*80.6*	*70-130*			
LCS (EL60703-BS1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Carbon Ranges C6-C12	448	10.0	mg/kg wet	500		89.6	75-125			
Carbon Ranges C12-C28	414	10.0	"	500		82.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	862	10.0	"	1000		86.2	75-125			
Surrogate: 1-Chlorooctane	*56.6*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.3*		*"*	*50.0*		*92.6*	*70-130*			
Calibration Check (EL60703-CCV1)				Prepared: 12/07/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	219		mg/kg	250		87.6	80-120			
Carbon Ranges C12-C28	254		"	250		102	80-120			
Total Hydrocarbons	473		"	500		94.6	80-120			
Surrogate: 1-Chlorooctane	*50.1*		*"*	*50.0*		*100*	*70-130*			
Surrogate: 1-Chlorooctadecane	*42.0*		*"*	*50.0*		*84.0*	*70-130*			
Matrix Spike (EL60703-MS1)	**Source: 6L06007-28**			Prepared: 12/07/06 Analyzed: 12/08/06						
Carbon Ranges C6-C12	456	10.0	mg/kg dry	525	4.06	86.1	75-125			
Carbon Ranges C12-C28	426	10.0	"	525	22.1	76.9	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	882	10.0	"	1050	22.1	81.9	75-125			
Surrogate: 1-Chlorooctane	*51.9*		*mg/kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.0*		*"*	*50.0*		*90.0*	*70-130*			

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 EL60703 - Solvent Extraction (GC)										
Matrix Spike Dup (EL60703-MSD1)	**Source: 6L06007-28**			Prepared: 12/07/06 Analyzed: 12/08/06						
Carbon Ranges C6-C12	463	10.0	mg/kg dry	525	4.06	87.4	75-125	1.50	20	
Carbon Ranges C12-C28	435	10.0	"	525	22.1	78.6	75-125	2.19	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	898	10.0	"	1050	22.1	83.4	75-125	1.81	20	
Surrogate: 1-Chlorooctane	*56.4*		*mg/kg*	*50.0*		*113*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.6*		*"*	*50.0*		*87.2*	*70-130*			
Batch EL60812 - Solvent Extraction (GC)										
Blank (EL60812-BLK1)				Prepared: 12/08/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*52.1*		*mg/kg*	*50.0*		*104*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.2*		*"*	*50.0*		*94.4*	*70-130*			
LCS (EL60812-BS1)				Prepared: 12/08/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	535	10.0	mg/kg wet	500		107	75-125			
Carbon Ranges C12-C28	480	10.0	"	500		96.0	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1020	10.0	"	1000		102	75-125			
Surrogate: 1-Chlorooctane	*62.8*		*mg/kg*	*50.0*		*126*	*70-130*			
Surrogate: 1-Chlorooctadecane	*55.0*		*"*	*50.0*		*110*	*70-130*			
Calibration Check (EL60812-CCV1)				Prepared: 12/08/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	214		mg/kg wet				80-120			
Carbon Ranges C12-C28	269		"				80-120			
Total Hydrocarbons	483		"				80-120			
Surrogate: 1-Chlorooctane	*50.8*		*mg/kg*	*50.0*		*102*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.4*		*"*	*50.0*		*103*	*70-130*			

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 EL60812 - Solvent Extraction (GC)										
Matrix Spike (EL60812-MS1)	**Source: 6L07014-01**			Prepared: 12/08/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	695	10.0	mg/kg dry	670	ND	104	75-125			
Carbon Ranges C12-C28	639	10.0	"	670	ND	95.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1330	10.0	"	1340	ND	99.3	75-125			
Surrogate: 1-Chlorooctane	*60.0*		*mg/kg*	*50.0*		*120*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.3*		*"*	*50.0*		*105*	*70-130*			
Matrix Spike Dup (EL60812-MSD1)	**Source: 6L07014-01**			Prepared: 12/08/06 Analyzed: 12/09/06						
Carbon Ranges C6-C12	907	10.0	mg/kg dry	893	ND	102	75-125	1.94	20	
Carbon Ranges C12-C28	862	10.0	"	893	ND	96.5	75-125	1.15	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1770	10.0	"	1790	ND	98.9	75-125	0.404	20	
Surrogate: 1-Chlorooctane	*70.5*		*mg/kg*	*100*		*70.5*	*70-130*			
Surrogate: 1-Chlorooctadecane	*70.5*		*"*	*100*		*70.5*	*70-130*			
Batch EL61314 - EPA 5030C (GC)										
Blank (EL61314-BLK1)				Prepared & Analyzed: 12/13/06						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*34.4*		*ug/kg*	*40.0*		*86.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.2*		*"*	*40.0*		*106*	*80-120*			
LCS (EL61314-BS1)				Prepared & Analyzed: 12/13/06						
Benzene	1.18	0.0250	mg/kg wet	1.25		94.4	80-120			
Toluene	1.31	0.0250	"	1.25		105	80-120			
Ethylbenzene	1.39	0.0250	"	1.25		111	80-120			
Xylene (p/m)	2.83	0.0250	"	2.50		113	80-120			
Xylene (o)	1.40	0.0250	"	1.25		112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*44.0*		*ug/kg*	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.7*		*"*	*40.0*		*109*	*80-120*			

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

Project: SH-0193-2
Project Number: Rocky Top 1
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 EL61314 - EPA 5030C (GC)										
Calibration Check (EL61314-CCV1)				Prepared: 12/13/06 Analyzed: 12/14/06						
Benzene	40.7		ug/kg	50.0		81.4	80-120			
Toluene	41.8		"	50.0		83.6	80-120			
Ethylbenzene	44.3		"	50.0		88.6	80-120			
Xylene (p/m)	86.2		"	100		86.2	80-120			
Xylene (o)	43.4		"	50.0		86.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.7*		*"*	*40.0*		*89.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.5*		*"*	*40.0*		*83.8*	*80-120*			
Matrix Spike (EL61314-MS1)		**Source: 6L13012-01**		Prepared: 12/13/06 Analyzed: 12/14/06						
Benzene	1.17	0.0250	mg/kg dry	1.44	ND	81.2	80-120			
Toluene	1.24	0.0250	"	1.44	ND	86.1	80-120			
Ethylbenzene	1.38	0.0250	"	1.44	ND	95.8	80-120			
Xylene (p/m)	2.84	0.0250	"	2.87	ND	99.0	80-120			
Xylene (o)	1.38	0.0250	"	1.44	ND	95.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.0*		*ug/kg*	*40.0*		*90.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.2*		*"*	*40.0*		*95.5*	*80-120*			
Matrix Spike Dup (EL61314-MSD1)		**Source: 6L13012-01**		Prepared: 12/13/06 Analyzed: 12/14/06						
Benzene	1.15	0.0250	mg/kg dry	1.44	ND	79.9	80-120	1.61	20	M8
Toluene	1.18	0.0250	"	1.44	ND	81.9	80-120	5.00	20	
Ethylbenzene	1.23	0.0250	"	1.44	ND	85.4	80-120	11.5	20	
Xylene (p/m)	2.48	0.0250	"	2.87	ND	86.4	80-120	13.6	20	
Xylene (o)	1.18	0.0250	"	1.44	ND	81.9	80-120	15.6	20	
Surrogate: a,a,a-Trifluorotoluene	*38.7*		*ug/kg*	*40.0*		*96.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		*"*	*40.0*		*82.0*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60804 - General Preparation (Prep)										
Blank (EL60804-BLK1)				Prepared: 12/07/06 Analyzed: 12/08/06						
% Solids	100		%							
Duplicate (EL60804-DUP1)	**Source: 6L07002-01**			Prepared: 12/07/06 Analyzed: 12/08/06						
% Solids	97.5		%		97.8			0.307	20	
Duplicate (EL60804-DUP2)	**Source: 6L07018-01**			Prepared: 12/07/06 Analyzed: 12/08/06						
% Solids	96.1		%		97.0			0.932	20	

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Notes and Definitions

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: Raland K Tuttle Date: 12/15/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds
Company Name: Plains Pipeline LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: e-mail: kcook@sdgenv.com

Project Name: SH-0193-2
Project #: Rocky Top 1
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 610003

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers (402-5[illegible])	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015M	TOTAL: TPH: 8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	RTI-SP2			12/6/06	1330		1	X								S	X									X				X
02	RTI-S6				1405		1	X								S	X									X				X
03	RTI-S7				1407		1	X								S	X									X				X
04	RTI-S8				1410		1	X								S	X									X				X
05	RTI-F2				1415		1	X								S	X									X				X
06	RTI-N1				1425		1	X								S	X									X				X
07	RTI-N2				1430		1	X								S	X									X				X
08	RTI-N3				1435		1	X								S	X									X				X

Special Instructions:

RG-

Relinquished by:	Date	Time	Received by:	Date	Time
	12/7/06	0800			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				12-07-06	0800

Laboratory Comments:
Sample containers intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: -0.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 12/7/10 8:00

Lab ID #: 101003

Initials: CK

Sample Receipt Checklist

					Client Initials
1	Temperature of container/ cooler?	Yes	No	-0.5 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	~~Not Present~~	
4	Custody Seals intact on sample bottles/ container?	Yes	No	~~Not Present~~	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	~~Not Applicable~~	
20	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Camille Reynolds

Plains All American EH & S

1301 S. County Road 1150

Midland, TX 79706-4476

Project: SH-0193-2

Project Number: Rocky Top 1

Location: Clay Osborn Ranch

Lab Order Number: 6L19012

Report Date: 12/20/06

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

Project: SH-0193-2
Project Number: Rocky Top 1
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RT1- 253	6L19012-01	Soil	12/19/06 10:00	12-19-2006 17:00

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

Plains All American EH & S	Project: SH-0193-2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: Rocky Top 1	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- 253 (6L19012-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL61918	12/19/06	12/20/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*127 %*	*70-130*		"	"	"	"	

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

Plains All American EH & S	Project: SH-0193-2	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: Rocky Top 1	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RT1- 253 (6L19012-01) Soil									
% Moisture	**15.8**	0.1	%	1	EL62003	12/19/06	12/20/06	% calculation	

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

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 EL61918 - Solvent Extraction (GC)										
Blank (EL61918-BLK1)				Prepared: 12/19/06 Analyzed: 12/20/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*42.5*		*mg/kg*	*50.0*		*85.0*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.6*		*"*	*50.0*		*99.2*	*70-130*			
LCS (EL61918-BS1)				Prepared: 12/19/06 Analyzed: 12/20/06						
Carbon Ranges C6-C12	609	10.0	mg/kg wet	500		122	75-125			
Carbon Ranges C12-C28	521	10.0	"	500		104	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1130	10.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*58.8*		*mg/kg*	*50.0*		*118*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.7*		*"*	*50.0*		*101*	*70-130*			
Calibration Check (EL61918-CCV1)				Prepared: 12/19/06 Analyzed: 12/20/06						
Carbon Ranges C6-C12	231		mg/kg	250		92.4	80-120			
Carbon Ranges C12-C28	298		"	250		119	80-120			
Total Hydrocarbons	529		"	500		106	80-120			
Surrogate: 1-Chlorooctane	*50.7*		*"*	*50.0*		*101*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.5*		*"*	*50.0*		*103*	*70-130*			
Duplicate (EL61918-DUP1)	**Source: 6L18001-13**			Prepared: 12/19/06 Analyzed: 12/20/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg dry		ND				20	
Carbon Ranges C12-C28	ND	10.0	"		ND				20	
Carbon Ranges C28-C35	ND	10.0	"		ND				20	
Total Hydrocarbons	ND	10.0	"		ND				20	
Surrogate: 1-Chlorooctane	*51.7*		*mg/kg*	*50.0*		*103*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.0*		*"*	*50.0*		*122*	*70-130*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61918 - Solvent Extraction (GC)										
Matrix Spike (EL61918-MS1)	**Source: 6L18001-13**			Prepared: 12/19/06 Analyzed: 12/20/06						
Carbon Ranges C6-C12	487	10.0	mg/kg dry	550	ND	88.5	75-125			
Carbon Ranges C12-C28	529	10.0	"	550	ND	96.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1020	10.0	"	1100	ND	92.7	75-125			
Surrogate: 1-Chlorooctane	*53.6*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.1*		*"*	*50.0*		*104*	*70-130*			

Plains All American EH & S
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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62003 - General Preparation (Prep)										
Blank (EL62003-BLK1)				Prepared: 12/19/06 Analyzed: 12/20/06						
% Moisture	ND	0.1	%							
Duplicate (EL62003-DUP1)	**Source: 6L18012-01**			Prepared: 12/19/06 Analyzed: 12/20/06						
% Moisture	4.3	0.1	%		4.6			6.74	20	

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Project Number: Rocky Top 1
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 12/20/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Camille Reynolds
Company Name: Plains Pipeline LP
Company Address:
City/State/Zip:
Telephone No: Fax No:
Sampler Signature: Kim C Cody

Project Name: SH-0193-2
Project #: Rocky Top 1
Project Loc: Clay Osborn-Ranch
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES
e-mail: kcody@sdgenv.com

(lab use only)
ORDER #: 6L1902

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TX 1005 TPH: TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	TOTAL:	RUSH TAT (Pre-Schedule) (24, 48, 72 hrs)	Standard TAT
01	RT1 - 253			12/19/06	1000		1	✓								S	X												X	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Kim C Cody	12/19/06	1900			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Sandra Saucedo	12/19/06	17:00

Laboratory Comments:

Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s) (Y) N
Custody seals on container(s) Y (N)
Custody seals on cooler(s) (Y) N
Sample Hand Delivered (Y) N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 0°C °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 12/19/09 5:06

Lab ID #: 60-19012

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	2.5 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	~~Not Present~~	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	~~Not Applicable~~	
#20	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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