1R – 412

REPORT

DATE:
JULY 2007

1R 412
Report
July 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
Jalmat #1 Release Site

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

SRS No. 2000-10606
NMOCD No. 1R-0412

Prepared For

PLAINS PIPELINE, L.P.

333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By

SDG ENVIRONMENTAL SERVICES

July 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 Jalmat #1 release site located on the Clay Osborn Rocky Top Ranch. Plains Pipeline is the owner/operator of several pipelines present 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 SE ¼ of the SE ¼ of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°08′25″ North, and Longitude 103°12′38″ West. The site is characterized by a right-of-way for the pipeline in a pasture. The pipeline is currently not in operation. A site location map is provided as Figure 1.

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. The visibly stained area was approximately 2,300 ft^2 and a small stockpile of approximately 10 cubic yards of stained soils was located near the south end of the visible 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.

An initial investigation that included installation of soil borings and collection 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 dated July 2006. The Site-Specific Remediation Work Plan provided for closure of the site under Closure Scenario 2. However, Closure Scenario 3 was allowed under the work plan should hydrocarbon impacted soils be found to extend to below 15 feet bgs.

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.

Soils were excavated with a bulldozer and backhoe to 12 feet below ground surface (bgs) and soil samples were collected from the bottom of the excavation and at the 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 indicated that soil impacts extended to below 15 feet bgs and excavation of all the impacted soil to below NMOCD guidelines is not practical, Work Plan Scenario 3 was implemented.

Scenario 3 included 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.

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 and the installation of the 20-mil poly liner was completed, backfilling of the excavation was initiated. The backfilled excavation was contoured to the original grade surrounding the site and restored by seeding with approved grass seed.

2.0 Regulatory Framework

In New Mexico, the MNOCD oversees and regulates oil, gas and geothermal activities, including compliance with environmental regulations. The Jalmat #1 Site was evaluated and remediated consistent with the characterization and remediation/abatement goals and objectives of the NMOCD approved 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 in monitor well MW-1 located in the central area of the 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.

4.0 NMOCD Site Ranking

The depth to water at the site is approximately 50 feet bgs. Based on the analytical results of soil samples, the hydrocarbon impacted soil extends from the surface to 20 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 feet 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 feet 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 remediation levels as shown in the following table demonstrating 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.

5.0 Site Assessment

On 25 May 2006, initial subsurface horizontal and vertical delineation was conducted by SDG with the installation of soil borings at the site. One (1) soil boring was installed to a depth of 40 feet bgs and soil samples were collected at depths of 2, 5, 10, 15, 20, 25, 30, 35 and 40 feet bgs, field screened with a PID, and analyzed for BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were below NMOCD regulatory standards and not detected above laboratory method detection

limits on the 9 soil samples. Laboratory results indicated that TPH-GRO/DRO concentrations exceeded 100 mg/kg TPH in 3 of the soil samples and the remaining 6 soil samples were either below NMCOD regulatory standards or were not detected above the laboratory method detection limits.

5.1 Distribution of Hydrocarbons in the Unsaturated Zone

The area of soils remediated was approximately 9,000 square feet including the area needed for excavation benching and ramping. The vertical extent of soils impacted above the site-specific NMOCD cleanup guidelines was determined to extend to below 15 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. A monitor well installed at the site has recorded water levels of approximately 50 feet bgs. A Groundwater sample was collected from the monitor well on October 20, 2006 indicated no BTEX constituents were detected above the laboratory method detection limits. Therefore, there is no indication that hydrocarbons from the historical release have impacted the saturated zone.

6.0 Site Remediation

The final surface area remediated was approximately 9,000 square feet. The volume of excavated and blended soils totaled 4,980 cubic yards. The remediated area is shown in Figure 2.

Excavation continued to 12 feet bgs at which point the excavation was terminated. PID readings soil samples in stained areas of the excavation floor from 15 feet bgs indicated the soils to be above the site-specific guidelines for Closure Scenario 2. Therefore, the site was managed under Closure Scenario 3 of the approved Site-Specific Work Plan and a 20 mil liner was installed at 12 feet bgs.

Prior to liner installation, 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 at locations of heaviest staining or highest PID reading. The liner was cushioned with sandy soils to protect it from puncture and tearing during the backfilling process. Installation of the 20-mil polyethylene liner at a depth of 12 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminates in the soil. The monitor well casing was fitted with a polyethylene boot secured to the liner with silicon sealer and polyethylene tape.

Soil samples of blended soils were collected to verify constituent concentrations of BTEX are below NMOCD guidelines and TPHGRO/DRO are below 100 mg/kg for direct backfill and below 1000 mg/kg as approved for backfill over liners. Once the excavation was confirmed to meet NMOCD standards and the installation of the 20-mil poly liner was completed, backfilling of the excavation was initiated with the blended soil.

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, 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.

Soil samples were collected from stained soils at 15 feet bgs and screened with a PID to determine if a liner placement was necessary. The results indicated soils at 15 feet bgs were above the NMOCD cleanup guidelines. Therefore, the site was closed under Closure Scenario 3 and a 35-foot by 105-foot 20-mil polyethylene liner was installed at approximately 12 feet bgs. Final confirmation samples indicated concentrations of TPH in soils remaining in place at the liner edge ranged from 70.4 mg/kg in one floor sample to <10 mg/kg in all other samples. The soil samples from the perimeter of the liner installation did not exhibit BTEX concentrations above the laboratory reporting limits.

Sample results were compared to the site-specific soil remediation guidelines. As indicated in Table 2 and the laboratory reports, 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 Jalmat #1 release site located on the Clay Osborn Rocky Top Ranch. The site is located in the SE ¼ of the SE ¼ of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude 32°08′25″ North, and Longitude 103°12′38″ 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 April 2006 provided for closure of the site under three closure scenarios which were implemented at the release site in October 2006 through March 2007.

Impacted soils were excavated, a 20-mil polyethylene liner installed, and confirmation samples were collected and compared to the site-specific cleanup guidelines. Soil

samples from the excavated areas confirm that the Jalmat #1 release site was remediated per the NMOCD approved Site-Specific Work Plan. 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 1

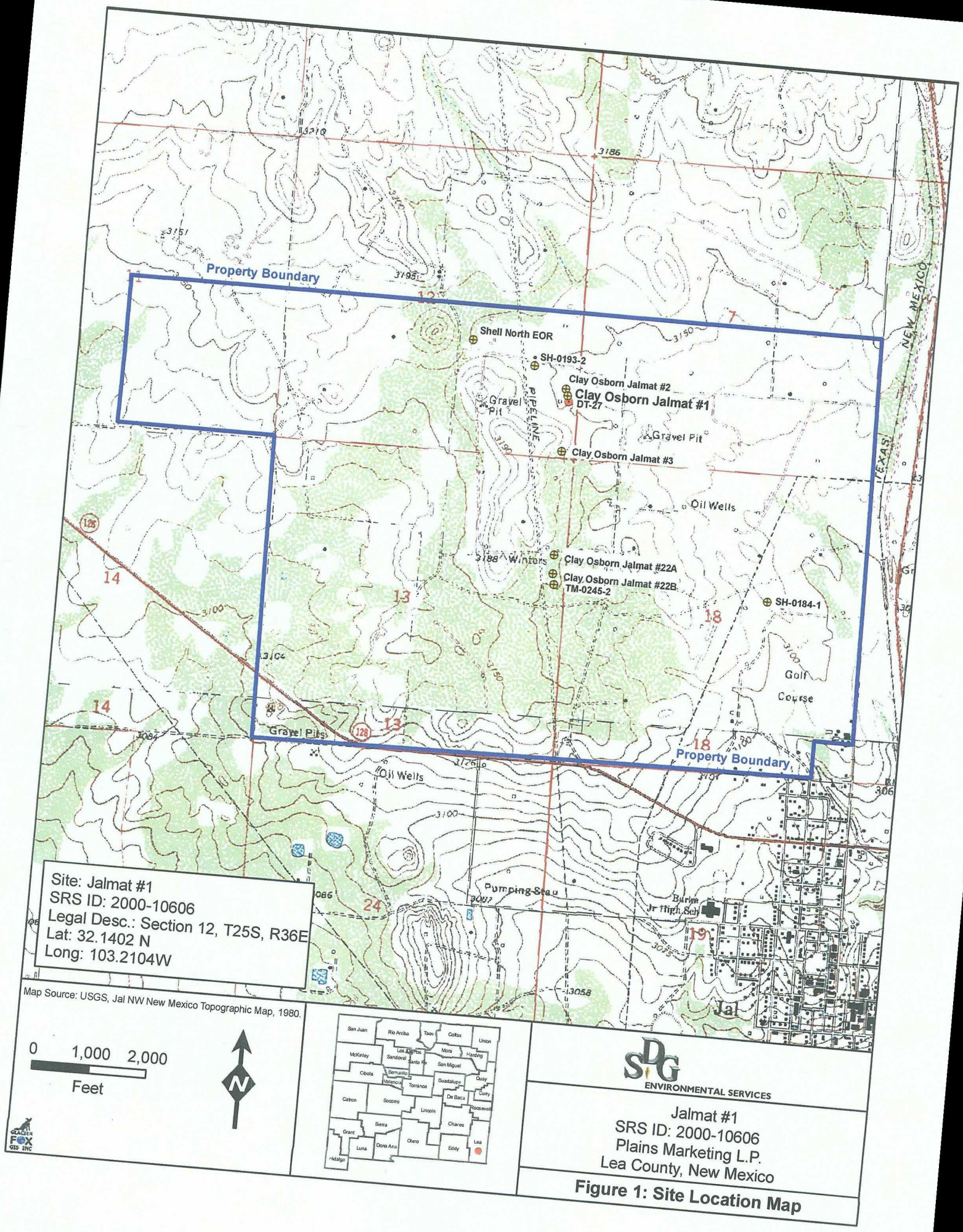
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

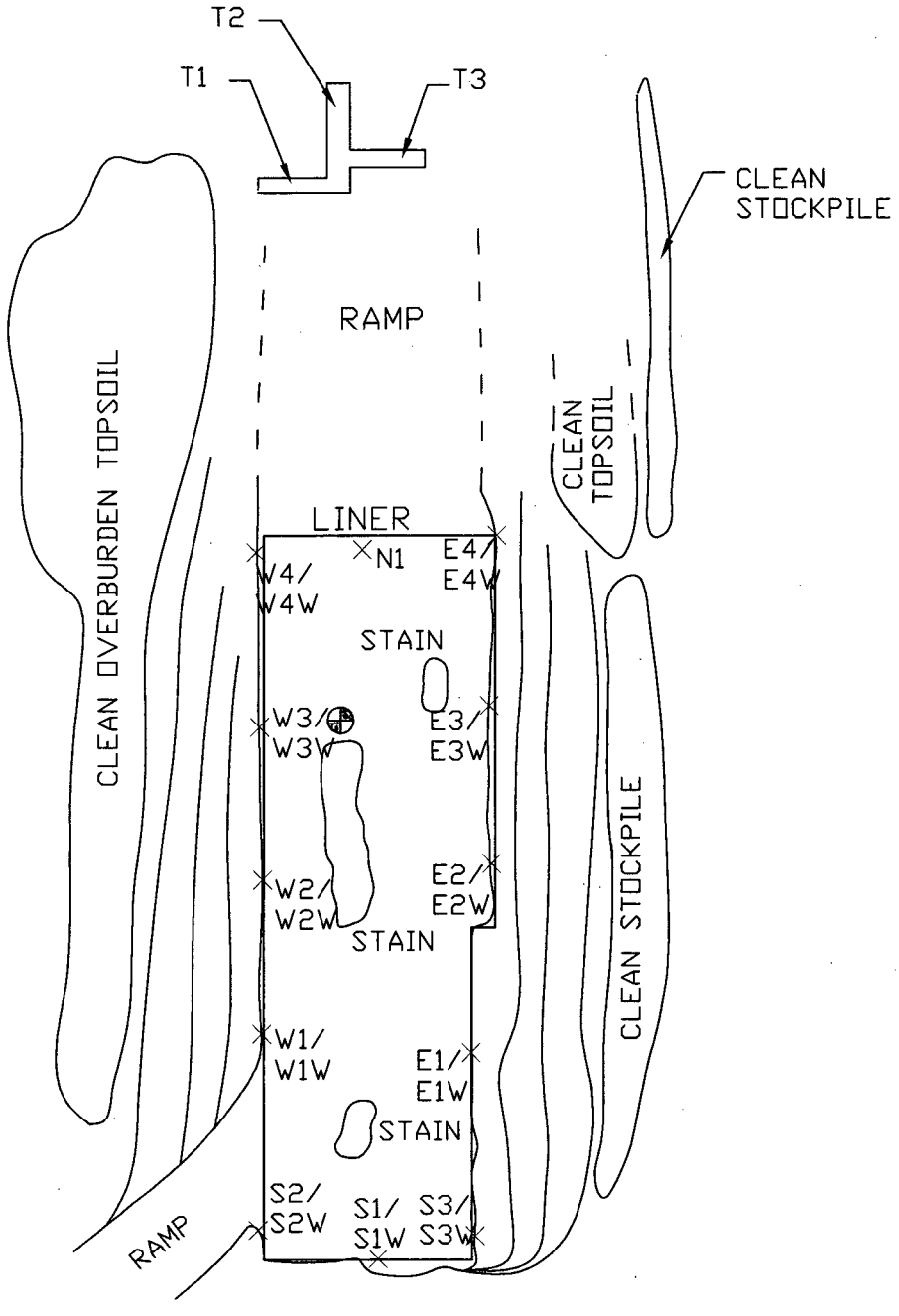
PLAINS PIPELINE, L.P.
Jalmat #1
LEA COUNTY, NEW MEXICO
PLAINS EMS NO:

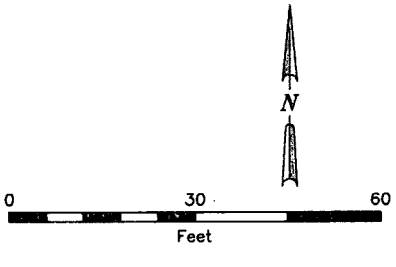
SAMPLE LOCATION	SAMPLE DATE	LABORATORY I.D.	METHOD: EPA 8021B					METHOD: EPA 8015M			TOTAL TPH
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	C6-C12 (mg/kg)	C12-C28 (mg/kg)	C28-C35 (mg/kg)	C6-C35 (mg/kg)
JM1-T2-15	11/9/2006	6K10007-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-T2-10	11/9/2006	6K10007-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-T2-5	11/9/2006	6K10007-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-T3-10	11/9/2006	6K10007-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-T3-15	11/9/2006	6K10007-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S1	11/14/2006	6K14012-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S2	11/14/2006	6K14012-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S3	11/14/2006	6K14012-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W1	11/14/2006	6K14012-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W2	11/14/2006	6K14012-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W3	11/14/2006	6K14012-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E1	11/14/2006	6K14012-07	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E2	11/14/2006	6K14012-08	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E3	11/14/2006	6K14012-09	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-N1	11/14/2006	6K14012-10	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-T4-15	11/16/2006	6K17003-01	na	na	na	na	na	<10.0	<10.0	<10.0	<10.0
JM1-T5-15	11/16/2006	6K17003-02	na	na	na	na	na	<10.0	<10.0	<10.0	<10.0
JM1-W4	12/4/2006	6L05002-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W4W	12/4/2006	6L05002-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E4	12/4/2006	6L05002-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	**70.4**	<10.0	**70.4**
JM1-E3W	12/4/2006	6L05002-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E4W	12/4/2006	6L05002-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-E2W	12/4/2006	6L05002-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	7.20 J	<10.0	<10.0
JM1-E1W	12/4/2006	6L05002-07	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S3W	12/4/2006	6L05002-08	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S1W	12/4/2006	6L05002-09	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-S2W	12/4/2006	6L05002-10	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W1W	12/4/2006	6L05002-11	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W2W	12/4/2006	6L05002-12	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM1-W3W	12/4/2006	6L05002-13	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0

< indicates the constituent was not detected
J indicates estimated value (detected below method reporting limit
na indicates not analyzed

Appendix A
Figures


Property Boundary
Shell North EOR
SH-0193-2
Clay Osborn Jalmat #2
Clay Osborn Jalmat #1
DT-27
Gravel Pit
PIPELINE
Clay Osborn Jalmat #3
Oil Wells
Winters
Clay Osborn Jalmat #22A
Clay Osborn Jalmat #22B
TM-0245-2
SH-0184-1
Golf Course
Gravel Pits
Property Boundary
Oil Wells
Pumping Stau
Jr High Sch
Jal
NEW MEXICO
TEXAS
Site: Jalmat #1
SRS ID: 2000-10606
Legal Desc.: Section 12, T25S, R36E
Lat: 32.1402 N
Long: 103.2104W
Map Source: USGS, Jal NW New Mexico Topographic Map, 1980.
0 1,000 2,000
Feet
N
San Juan
Rio Arriba
Taos
Colfax
Union
McKinley
Los Alamos
Mora
Harding
Sandoval
Santa Fe
San Miguel
Cibola
Bernalillo
Valencia
Torrance
Guadalupe
Quay
Curry
Catron
Socorro
De Baca
Roosevelt
Lincoln
Sierra
Chaves
Grant
Dona Ana
Otero
Eddy
Lea
Luna
Hidalgo
GLACIER FOX GIS INC
SDG
ENVIRONMENTAL SERVICES
Jalmat #1
SRS ID: 2000-10606
Plains Marketing L.P.
Lea County, New Mexico
Figure 1: Site Location Map





LEGEND:

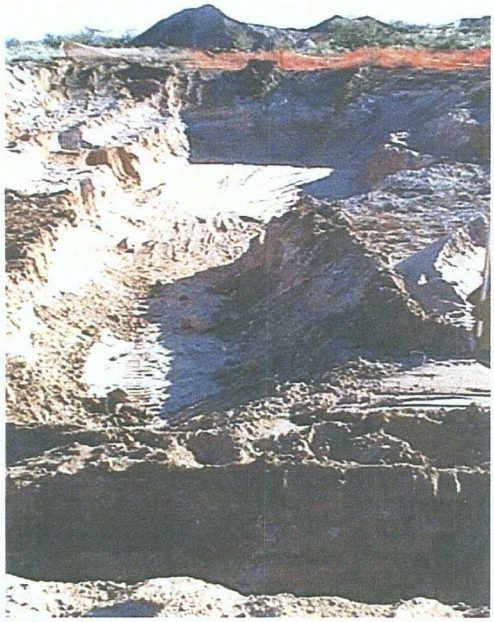
- Monitor Well Location
- Soil Sample Locations
- Final Excavation Boundary
- S2/ S2W Floor/Wall Sample Location

SDG ENVIRONMENTAL SERVICES

Rocky Top Ranch
Clay Osborn Jalmat #1
SRS ID: Rocky Top 1
Lea County, New Mexico

Figure 2: Excavation Detail

Appendix B
Site Photographs



Jalmat 1 – North Test Trench Running East – West Across Northern End.
(Photo facing south, test trench in foreground.)

Jalmat 1 – Excavation Complete and prepared for liner. Photo facing south

Jalmat 1 – liner being fitted with boot at base of monitor well..

Jalmat 1 – Liner install complete and backfill over liner initiated.

Jalmat 1 – Backfill continues

Jalmat 1 – Backfill Complete

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: Jalmat Clay Osborne #1

Project Number: 2000-10606

Location: Clay Osborn Ranch

Lab Order Number: 6K10007

Report Date: 11/14/06

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

Project: Jalmat Clay Osborne #1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM1-T2-15	6K10007-01	Soil	11/09/06 13:00	11-10-2006 16:30
JM1-T2-10	6K10007-02	Soil	11/09/06 13:10	11-10-2006 16:30
JM1-T2-5	6K10007-03	Soil	11/09/06 13:20	11-10-2006 16:30
JM1-T3-10	6K10007-04	Soil	11/09/06 14:30	11-10-2006 16:30
JM1-T3-15	6K10007-05	Soil	11/09/06 14:50	11-10-2006 16:30

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

Project: Jalmat Clay Osborne #1
Project Number: 2000-10606
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
JM1-T2-15 (6K10007-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61313	11/13/06	11/14/06	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		*90.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*108 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*129 %*	*70-130*		"	"	"	"	
JM1-T2-10 (6K10007-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61313	11/13/06	11/13/06	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		*80.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*112 %*	*70-130*		"	"	"	"	
JM1-T2-5 (6K10007-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61313	11/13/06	11/13/06	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		*86.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	

Plains All American EH & S	Project: Jalmat Clay Osborne #1	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1-T2-5 (6K10007-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*118 %*	*70-130*		"	"	"	"	
JM1-T3-10 (6K10007-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61313	11/13/06	11/13/06	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		*80.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*118 %*	*70-130*		"	"	"	"	
JM1-T3-15 (6K10007-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61313	11/13/06	11/14/06	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		*87.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61102	11/11/06	11/11/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*113 %*	*70-130*		"	"	"	"	

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Plains All American EH & S	Project: Jalmat Clay Osborne #1	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1-T2-15 (6K10007-01) Soil									
% Moisture	**0.8**	0.1	%	1	EK61305	11/10/06	11/13/06	% calculation	
JM1-T2-10 (6K10007-02) Soil									
% Moisture	**9.9**	0.1	%	1	EK61305	11/10/06	11/13/06	% calculation	
JM1-T2-5 (6K10007-03) Soil									
% Moisture	**14.2**	0.1	%	1	EK61305	11/10/06	11/13/06	% calculation	
JM1-T3-10 (6K10007-04) Soil									
% Moisture	**1.8**	0.1	%	1	EK61305	11/10/06	11/13/06	% calculation	
JM1-T3-15 (6K10007-05) Soil									
% Moisture	**1.9**	0.1	%	1	EK61305	11/10/06	11/13/06	% calculation	

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

Project: Jalmat Clay Osborne #1
Project Number: 2000-10606
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 EK61102 - Solvent Extraction (GC)										
Blank (EK61102-BLK1)				Prepared & Analyzed: 11/11/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*45.8*		*mg/kg*	*50.0*		*91.6*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.7*		*"*	*50.0*		*115*	*70-130*			
LCS (EK61102-BS1)				Prepared & Analyzed: 11/11/06						
Carbon Ranges C6-C12	453	10.0	mg/kg wet	500		90.6	75-125			
Carbon Ranges C12-C28	431	10.0	"	500		86.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	884	10.0	"	1000		88.4	75-125			
Surrogate: 1-Chlorooctane	*55.0*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.5*		*"*	*50.0*		*113*	*70-130*			
Calibration Check (EK61102-CCV1)				Prepared & Analyzed: 11/11/06						
Carbon Ranges C6-C12	202		mg/kg	250		80.8	80-120			
Carbon Ranges C12-C28	260		"	250		104	80-120			
Total Hydrocarbons	462		"	500		92.4	80-120			
Surrogate: 1-Chlorooctane	*51.2*		*"*	*50.0*		*102*	*70-130*			
Surrogate: 1-Chlorooctadecane	*59.0*		*"*	*50.0*		*118*	*70-130*			
Matrix Spike (EK61102-MS1)	**Source: 6K10007-01**			Prepared & Analyzed: 11/11/06						
Carbon Ranges C6-C12	568	10.0	mg/kg dry	504	ND	113	75-125			
Carbon Ranges C12-C28	552	10.0	"	504	ND	110	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1120	10.0	"	1010	ND	111	75-125			
Surrogate: 1-Chlorooctane	*73.2*		*mg/kg*	*100*		*73.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*78.6*		*"*	*100*		*78.6*	*70-130*			

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1301 S. County Road 1150
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Project: Jalmat Clay Osborne #1
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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 EK61102 - Solvent Extraction (GC)										
Matrix Spike Dup (EK61102-MSD1)	**Source: 6K10007-01**			Prepared & Analyzed: 11/11/06						
Carbon Ranges C6-C12	555	10.0	mg/kg dry	504	ND	110	75-125	2.32	20	
Carbon Ranges C12-C28	546	10.0	"	504	ND	108	75-125	1.09	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1100	10.0	"	1010	ND	109	75-125	1.80	20	
Surrogate: 1-Chlorooctane	*71.7*		*mg/kg*	*100*		*71.7*	*70-130*			
Surrogate: 1-Chlorooctadecane	*74.6*		*"*	*100*		*74.6*	*70-130*			
Batch EK61313 - EPA 5030C (GC)										
Blank (EK61313-BLK1)				Prepared & Analyzed: 11/13/06						
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	*32.4*		*ug/kg*	*40.0*		*81.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.7*		*"*	*40.0*		*89.2*	*80-120*			
LCS (EK61313-BS1)				Prepared & Analyzed: 11/13/06						
Benzene	1.05	0.0250	mg/kg wet	1.25		84.0	80-120			
Toluene	1.03	0.0250	"	1.25		82.4	80-120			
Ethylbenzene	1.03	0.0250	"	1.25		82.4	80-120			
Xylene (p/m)	2.12	0.0250	"	2.50		84.8	80-120			
Xylene (o)	1.04	0.0250	"	1.25		83.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.3*		*ug/kg*	*40.0*		*80.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.0*		*"*	*40.0*		*87.5*	*80-120*			

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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 EK61313 - EPA 5030C (GC)										
Calibration Check (EK61313-CCV1)				Prepared & Analyzed: 11/13/06						
Benzene	45.9		ug/kg	50.0		91.8	80-120			
Toluene	42.5		"	50.0		85.0	80-120			
Ethylbenzene	45.2		"	50.0		90.4	80-120			
Xylene (p/m)	94.2		"	100		94.2	80-120			
Xylene (o)	52.0		"	50.0		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.3*		*"*	*40.0*		*80.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.9*		*"*	*40.0*		*84.8*	*80-120*			
Matrix Spike (EK61313-MS1)		**Source: 6K10007-05**		Prepared: 11/13/06 Analyzed: 11/14/06						
Benzene	1.12	0.0250	mg/kg dry	1.27	ND	88.2	80-120			
Toluene	1.04	0.0250	"	1.27	ND	81.9	80-120			
Ethylbenzene	1.29	0.0250	"	1.27	ND	102	80-120			
Xylene (p/m)	2.23	0.0250	"	2.55	ND	87.5	80-120			
Xylene (o)	1.10	0.0250	"	1.27	ND	86.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.5*		*ug/kg*	*40.0*		*88.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.6*		*"*	*40.0*		*91.5*	*80-120*			
Matrix Spike Dup (EK61313-MSD1)		**Source: 6K10007-05**		Prepared: 11/13/06 Analyzed: 11/14/06						
Benzene	1.21	0.0250	mg/kg dry	1.27	ND	95.3	80-120	7.74	20	
Toluene	1.13	0.0250	"	1.27	ND	89.0	80-120	8.31	20	
Ethylbenzene	1.09	0.0250	"	1.27	ND	85.8	80-120	17.3	20	
Xylene (p/m)	2.36	0.0250	"	2.55	ND	92.5	80-120	5.56	20	
Xylene (o)	1.04	0.0250	"	1.27	ND	81.9	80-120	5.58	20	
Surrogate: a,a,a-Trifluorotoluene	*36.5*		*ug/kg*	*40.0*		*91.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.6*		*"*	*40.0*		*99.0*	*80-120*			

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

Project: Jalmat Clay Osborne #1
Project Number: 2000-10606
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 EK61305 - General Preparation (Prep)										
Blank (EK61305-BLK1)				Prepared: 11/10/06 Analyzed: 11/13/06						
% Solids	100		%							
Duplicate (EK61305-DUP1)		**Source: 6K09012-01**		Prepared: 11/10/06 Analyzed: 11/13/06						
% Solids	85.6		%		84.6			1.18	20	
Duplicate (EK61305-DUP2)		**Source: 6K10008-06**		Prepared: 11/10/06 Analyzed: 11/13/06						
% Solids	96.2		%		96.7			0.518	20	

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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: 11/14/2006

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: Jalmat #1
Project #: 2000-10606
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6K 10007

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # 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	Analyze For: TCLP: TPH: 418.1 (8015M) 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	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	JM1-T1-15			11/9/06	1300 (M)	1	✓								S			X							X				
02	JM1-T2-10			11/9/06	1310 (M)		✓								S			X							X				
03	JM1-T2-5			11/9/06	1320 (M)		✓								S			X							X				
04	JM1-T3-10			11/9/06	1430 (M)		✓								S			X							X				
05	JM1-T3-15			11/9/06	1450 (M)		✓								S			X							X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	11/10/06	1630			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			[signature]	11/10/06	16:30

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? 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: -2.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 11/10/06

Lab ID #: 6K 10007-01-5

Initials: MS

Sample Receipt Checklist

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

Project Number: 2000-10606

Location: Clay Osborn Ranch

Lab Order Number: 6K14012

Report Date: 11/17/06

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM1- S1	6K14012-01	Soil	11/14/06 11:05	11-14-2006 15:50
JM1- S2	6K14012-02	Soil	11/14/06 11:10	11-14-2006 15:50
JM1- S3	6K14012-03	Soil	11/14/06 11:16	11-14-2006 15:50
JM1- W1	6K14012-04	Soil	11/14/06 11:30	11-14-2006 15:50
JM1- W2	6K14012-05	Soil	11/14/06 11:40	11-14-2006 15:50
JM1- W3	6K14012-06	Soil	11/14/06 12:55	11-14-2006 15:50
JM1- E1	6K14012-07	Soil	11/14/06 11:22	11-14-2006 15:50
JM1- E2	6K14012-08	Soil	11/14/06 11:55	11-14-2006 15:50
JM1- E3	6K14012-09	Soil	11/14/06 13:05	11-14-2006 15:50
JM1- N1	6K14012-10	Soil	11/14/06 13:15	11-14-2006 15:50

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- S1 (6K14012-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*93.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*96.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*130 %*	*70-130*		"	"	"	"	
JM1- S2 (6K14012-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/16/06	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		*90.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*123 %*	*70-130*		"	"	"	"	
JM1- S3 (6K14012-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/16/06	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		*99.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- S3 (6K14012-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*116 %*	*70-130*		"	"	"	"	
JM1- W1 (6K14012-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*110 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*130 %*	*70-130*		"	"	"	"	
JM1- W2 (6K14012-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*98.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- W3 (6K14012-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*94.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*129 %*	*70-130*		"	"	"	"	
JM1- E1 (6K14012-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*100 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*116 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	
JM1- E2 (6K14012-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*85.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- E2 (6K14012-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*128 %*	*70-130*		"	"	"	"	
JM1- E3 (6K14012-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61505	11/15/06	11/15/06	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		*87.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*130 %*	*70-130*		"	"	"	"	
JM1- N1 (6K14012-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EK61613	11/16/06	11/16/06	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		*115 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61419	11/14/06	11/15/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*87.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*116 %*	*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
JM1- S1 (6K14012-01) Soil									
% Moisture	**1.1**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- S2 (6K14012-02) Soil									
% Moisture	**1.8**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- S3 (6K14012-03) Soil									
% Moisture	**20.3**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- W1 (6K14012-04) Soil									
% Moisture	**4.1**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- W2 (6K14012-05) Soil									
% Moisture	**21.0**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- W3 (6K14012-06) Soil									
% Moisture	**1.3**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- E1 (6K14012-07) Soil									
% Moisture	**20.7**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- E2 (6K14012-08) Soil									
% Moisture	**2.0**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- E3 (6K14012-09) Soil									
% Moisture	**9.8**	0.1	%	1	EK61503	11/14/06	11/15/06	% calculation	
JM1- N1 (6K14012-10) Soil									
% Moisture	**2.4**	0.1	%	1	EK61503	11/14/06	11/15/06	% 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 EK61419 - Solvent Extraction (GC)										
Blank (EK61419-BLK1)				Prepared: 11/14/06 Analyzed: 11/15/06						
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	*41.7*		*mg/kg*	*50.0*		*83.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.3*		*"*	*50.0*		*107*	*70-130*			
LCS (EK61419-BS1)				Prepared: 11/14/06 Analyzed: 11/15/06						
Carbon Ranges C6-C12	467	10.0	mg/kg wet	500		93.4	75-125			
Carbon Ranges C12-C28	446	10.0	"	500		89.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	912	10.0	"	1000		91.2	75-125			
Surrogate: 1-Chlorooctane	*49.4*		*mg/kg*	*50.0*		*98.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.7*		*"*	*50.0*		*109*	*70-130*			
Calibration Check (EK61419-CCV1)				Prepared: 11/14/06 Analyzed: 11/15/06						
Carbon Ranges C6-C12	209		mg/kg	250		83.6	80-120			
Carbon Ranges C12-C28	273		"	250		109	80-120			
Total Hydrocarbons	482		"	500		96.4	80-120			
Surrogate: 1-Chlorooctane	*55.7*		*"*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.9*		*"*	*50.0*		*130*	*70-130*			
Matrix Spike (EK61419-MS1)	**Source: 6K13018-01**			Prepared: 11/14/06 Analyzed: 11/15/06						
Carbon Ranges C6-C12	550	10.0	mg/kg dry	582	ND	94.5	75-125			
Carbon Ranges C12-C28	613	10.0	"	582	31.7	99.9	75-125			
Carbon Ranges C28-C35	6.32	10.0	"	0.00	3.45		75-125			J
Total Hydrocarbons	1160	10.0	"	1160	31.7	97.3	75-125			
Surrogate: 1-Chlorooctane	*58.9*		*mg/kg*	*50.0*		*118*	*70-130*			
Surrogate: 1-Chlorooctadecane	*63.6*		*"*	*50.0*		*127*	*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 EK61419 - Solvent Extraction (GC)										
Matrix Spike Dup (EK61419-MSD1)	**Source: 6K13018-01**			Prepared: 11/14/06 Analyzed: 11/15/06						
Carbon Ranges C6-C12	563	10.0	mg/kg dry	582	ND	96.7	75-125	2.34	20	
Carbon Ranges C12-C28	621	10.0	"	582	31.7	101	75-125	1.30	20	
Carbon Ranges C28-C35	6.91	10.0	"	0.00	3.45		75-125	8.92	20	J
Total Hydrocarbons	1180	10.0	"	1160	31.7	99.0	75-125	1.71	20	
Surrogate: 1-Chlorooctane	*57.3*		*mg/kg*	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.5*		*"*	*50.0*		*123*	*70-130*			
Batch EK61505 - EPA 5030C (GC)										
Blank (EK61505-BLK1)				Prepared & Analyzed: 11/15/06						
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	*39.6*		*ug/kg*	*40.0*		*99.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.8*		*"*	*40.0*		*89.5*	*80-120*			
LCS (EK61505-BS1)				Prepared: 11/15/06 Analyzed: 11/16/06						
Benzene	1.10	0.0250	mg/kg wet	1.25		88.0	80-120			
Toluene	1.06	0.0250	"	1.25		84.8	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.04	0.0250	"	2.50		81.6	80-120			
Xylene (o)	1.04	0.0250	"	1.25		83.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.5*		*ug/kg*	*40.0*		*81.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.0*		*"*	*40.0*		*112*	*80-120*			

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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 EK61505 - EPA 5030C (GC)										
Calibration Check (EK61505-CCV1)				Prepared & Analyzed: 11/15/06						
Benzene	56.5		ug/kg	50.0		113	80-120			
Toluene	53.1		"	50.0		106	80-120			
Ethylbenzene	50.7		"	50.0		101	80-120			
Xylene (p/m)	93.2		"	100		93.2	80-120			
Xylene (o)	49.7		"	50.0		99.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.9*		"	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.0*		"	*40.0*		*115*	*80-120*			
Matrix Spike (EK61505-MS1)	**Source: 6K14012-09**			Prepared & Analyzed: 11/15/06						
Benzene	1.44	0.0250	mg/kg dry	1.39	ND	104	80-120			
Toluene	1.44	0.0250	"	1.39	ND	104	80-120			
Ethylbenzene	1.24	0.0250	"	1.39	ND	89.2	80-120			
Xylene (p/m)	2.75	0.0250	"	2.77	ND	99.3	80-120			
Xylene (o)	1.39	0.0250	"	1.39	ND	100	80-120			
Surrogate: a,a,a-Trifluorotoluene	*40.4*		*ug/kg*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.4*		"	*40.0*		*116*	*80-120*			
Matrix Spike Dup (EK61505-MSD1)	**Source: 6K14012-09**			Prepared & Analyzed: 11/15/06						
Benzene	1.21	0.0250	mg/kg dry	1.39	ND	87.1	80-120	17.7	20	
Toluene	1.16	0.0250	"	1.39	ND	83.5	80-120	21.9	20	R
Ethylbenzene	1.31	0.0250	"	1.39	ND	94.2	80-120	5.45	20	
Xylene (p/m)	2.28	0.0250	"	2.77	ND	82.3	80-120	18.7	20	
Xylene (o)	1.18	0.0250	"	1.39	ND	84.9	80-120	16.3	20	
Surrogate: a,a,a-Trifluorotoluene	*34.6*		*ug/kg*	*40.0*		*86.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.8*		"	*40.0*		*99.5*	*80-120*			
Batch EK61613 - EPA 5030C (GC)										
Blank (EK61613-BLK1)				Prepared & Analyzed: 11/16/06						
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	*47.5*		*ug/kg*	*40.0*		*119*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.4*		"	*40.0*		*101*	*80-120*			

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

Project: Jalmat 1
Project Number: 2000-10606
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 EK61613 - EPA 5030C (GC)										
LCS (EK61613-BS1)				Prepared & Analyzed: 11/16/06						
Benzene	1.41	0.0250	mg/kg wet	1.25		113	80-120			
Toluene	1.34	0.0250	"	1.25		107	80-120			
Ethylbenzene	1.21	0.0250	"	1.25		96.8	80-120			
Xylene (p/m)	2.58	0.0250	"	2.50		103	80-120			
Xylene (o)	1.31	0.0250	"	1.25		105	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.6*		*ug/kg*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.2*		*"*	*40.0*		*118*	*80-120*			
Calibration Check (EK61613-CCV1)				Prepared & Analyzed: 11/16/06						
Benzene	59.7		ug/kg	50.0		119	80-120			
Toluene	55.9		"	50.0		112	80-120			
Ethylbenzene	47.4		"	50.0		94.8	80-120			
Xylene (p/m)	88.0		"	100		88.0	80-120			
Xylene (o)	44.2		"	50.0		88.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.5*		*"*	*40.0*		*119*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.7*		*"*	*40.0*		*99.2*	*80-120*			
Matrix Spike (EK61613-MS1)	**Source: 6K15010-03**			Prepared & Analyzed: 11/16/06						
Benzene	1.63	0.0250	mg/kg dry	1.46	ND	112	80-120			
Toluene	1.49	0.0250	"	1.46	ND	102	80-120			
Ethylbenzene	1.18	0.0250	"	1.46	ND	80.8	80-120			
Xylene (p/m)	2.58	0.0250	"	2.91	ND	88.7	80-120			
Xylene (o)	1.29	0.0250	"	1.46	ND	88.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.3*		*ug/kg*	*40.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.2*		*"*	*40.0*		*108*	*80-120*			
Matrix Spike Dup (EK61613-MSD1)	**Source: 6K15010-03**			Prepared & Analyzed: 11/16/06						
Benzene	1.68	0.0250	mg/kg dry	1.46	ND	115	80-120	2.64	20	
Toluene	1.56	0.0250	"	1.46	ND	107	80-120	4.78	20	
Ethylbenzene	1.27	0.0250	"	1.46	ND	87.0	80-120	7.39	20	
Xylene (p/m)	2.73	0.0250	"	2.91	ND	93.8	80-120	5.59	20	
Xylene (o)	1.29	0.0250	"	1.46	ND	88.4	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	*44.2*		*ug/kg*	*40.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.7*		*"*	*40.0*		*104*	*80-120*			

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

Project: Jalmat I
Project Number: 2000-10606
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 EK61503 - General Preparation (Prep)										
Blank (EK61503-BLK1)				Prepared: 11/14/06 Analyzed: 11/15/06						
% Solids	100		%							
Duplicate (EK61503-DUP1)		**Source: 6K13015-01**		Prepared: 11/14/06 Analyzed: 11/15/06						
% Solids	95.2		%		95.0			0.210	20	
Duplicate (EK61503-DUP2)		**Source: 6K14006-03**		Prepared: 11/14/06 Analyzed: 11/15/06						
% Solids	92.5		%		92.8			0.324	20	
Duplicate (EK61503-DUP3)		**Source: 6K14012-10**		Prepared: 11/14/06 Analyzed: 11/15/06						
% Solids	97.1		%		97.6			0.514	20	

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

R	The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.
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: 11/17/2006

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

Page 1 of 2

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

Project Name: Jalmat #1
Project #: 2000-10606
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 60K1402

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: 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	JM1 - S1			11/14/06	1105		1	✓								S	X							X				✓
02	JM1 - S2			11/14/06	1110		1	✓									X							X				✓
03	JM1 - S3			11/14/06	1116		1	✓									X							X				✓
04	JM1 - W1			11/14/06	1130		1	✓									X							X				✓
05	JM1 - W2			11/14/06	1140		1	✓									X							X				✓
06	JM1 - W3			11/14/06	1255		1	✓									X							X				✓
	JM1 - W4			11/14/06			1	✓									X							X				✓
	JM1 - W5			11/14/06			1	✓									X							X				✓
07	JM1 - E1			11/14/06	1122		1	✓									X							X				✓
08	JM1 - E2			11/14/06	1155		1	✓								V	X							X				✓

TPH
BTEX

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	11/14/06	15:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Carin Kelly	11/14/06	15:50

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

Ice Blue

Temperature Upon Receipt: -2.6 °C

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: Jalmat #1

Project #: 2000-10606

Project Loc: Clay Osborn Ranch

PO #:

Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6K14012

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
-09	JM1-E3			11/14/06	1305		1	✓								S	X								X				✓
	~~JM1-E4~~			11/14/06			1	✓								↓	X								X				✓
	~~JM1-E5~~			11/14/06			1	✓								↓	X								X				✓
-10	~~JM1~~ JM1-N1			11/14/06	1315		1	✓								↓	X								X				✓

TCLP:
TOTAL:

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	11/14/06	1550			
Relinquished by:					
Relinquished by:			Received by ELOT: [signature]	11/14/06	15:50

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
4oz glass
Temperature Upon Receipt: -2.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

ent: Plains

/ Time: 11/14/06 15:50

ID # : 6K14012

ls: CK

Sample Receipt Checklist

				Client Initials
Temperature of container/ cooler?	Yes	No	5.0 °C	
Shipping container in good condition?	Yes	No		
Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
Chain of Custody present?	Yes	No		
Sample instructions complete of Chain of Custody?	Yes	No		
Chain of Custody signed when relinquished/ received?	Yes	No		
Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
Container label(s) legible and intact?	Yes	No	Not Applicable	
Sample matrix/ properties agree with Chain of Custody?	Yes	No		
Containers supplied by ELOT?	Yes	No		
Samples in proper container/ bottle?	Yes	No	See Below	
Samples properly preserved?	Yes	No	See Below	
Sample bottles intact?	Yes	No		
Preservations documented on Chain of Custody?	Yes	No		
Containers documented on Chain of Custody?	Yes	No		
Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
All samples received within sufficient hold time?	Yes	No	See Below	
Subcontract of sample(s)?	Yes	No	Not Applicable	
VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

act: ______ Contacted by: ______ Date/ Time: ______

rding: ______

rective Action Taken:

ck 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: Jalmat 1

Project Number: 2000-10606

Location: Clay Osborn Ranch

Lab Order Number: 6K17003

Report Date: 11/21/06

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM1- T4- 15	6K17003-01	Soil	11/16/06 13:50	11-17-2006 09:00
JM1- T5- 15	6K17003-02	Soil	11/16/06 15:00	11-17-2006 09:00

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

Project: Jalmat 1
Project Number: 2000-10606
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
JM1- T4- 15 (6K17003-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61711	11/17/06	11/18/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*81.2 %*	*70-130*		"	"	"	"	
JM1- T5- 15 (6K17003-02) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EK61711	11/17/06	11/18/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*82.4 %*	*70-130*		"	"	"	"	

Plains All American EH & S	Project: Jalmat 1	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1- T4- 15 (6K17003-01) Soil									
% Moisture	**ND**	0.1	%	1	EK62008	11/17/06	11/20/06	% calculation	
JM1- T5- 15 (6K17003-02) Soil									
% Moisture	**3.1**	0.1	%	1	EK62008	11/17/06	11/20/06	% 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 EK61711 - Solvent Extraction (GC)										
Blank (EK61711-BLK1)				Prepared: 11/17/06 Analyzed: 11/18/06						
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	*58.7*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*53.4*		"	*50.0*		*107*	*70-130*			
LCS (EK61711-BS1)				Prepared & Analyzed: 11/17/06						
Carbon Ranges C6-C12	498	10.0	mg/kg wet	500		99.6	75-125			
Carbon Ranges C12-C28	490	10.0	"	500		98.0	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	988	10.0	"	1000		98.8	75-125			
Surrogate: 1-Chlorooctane	*58.3*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*51.2*		"	*50.0*		*102*	*70-130*			
Calibration Check (EK61711-CCV1)				Prepared: 11/17/06 Analyzed: 11/18/06						
Carbon Ranges C6-C12	211		mg/kg	250		84.4	80-120			
Carbon Ranges C12-C28	297		"	250		119	80-120			
Total Hydrocarbons	508		"	500		102	80-120			
Surrogate: 1-Chlorooctane	*58.5*		"	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*54.2*		"	*50.0*		*108*	*70-130*			
Matrix Spike (EK61711-MS1)	**Source: 6K17003-02**			Prepared: 11/17/06 Analyzed: 11/18/06						
Carbon Ranges C6-C12	532	10.0	mg/kg dry	516	ND	103	75-125			
Carbon Ranges C12-C28	525	10.0	"	516	ND	102	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1060	10.0	"	1030	ND	103	75-125			
Surrogate: 1-Chlorooctane	*54.9*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*43.0*		"	*50.0*		*86.0*	*70-130*			

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

Project: Jalmat 1
Project Number: 2000-10606
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 EK61711 - Solvent Extraction (GC)										
Matrix Spike Dup (EK61711-MSD1)	**Source: 6K17003-02**			Prepared: 11/17/06 Analyzed: 11/18/06						
Carbon Ranges C6-C12	496	10.0	mg/kg dry	516	ND	96.1	75-125	7.00	20	
Carbon Ranges C12-C28	497	10.0	"	516	ND	96.3	75-125	5.48	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	993	10.0	"	1030	ND	96.4	75-125	6.53	20	
Surrogate: 1-Chlorooctane	*52.4*		*mg/kg*	*50.0*		*105*	*70-130*			
Surrogate: 1-Chlorooctadecane	*40.4*		"	*50.0*		*80.8*	*70-130*			

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

Project: Jalmat 1
Project Number: 2000-10606
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 EK62008 - General Preparation (Prep)										
Blank (EK62008-BLK1)				Prepared: 11/17/06 Analyzed: 11/20/06						
% Moisture	ND	0.1	%							
Duplicate (EK62008-DUP1)	**Source: 6K16007-01**			Prepared: 11/17/06 Analyzed: 11/20/06						
% Moisture	13.1	0.1	%		12.1			7.94	20	

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: 11/21/2006

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, L.P.
Company Address:
City/State/Zip:
Telephone No:
Fax No:
Sampler Signature: [signature]
e-mail: kcod@esdgenv.com

Project Name: Jalmat #1
Project #: 2000-10606
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 6K17003

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	JM1-T4-15			11/16/06	1350		1	✓								S	X																X
02	JM1-T5-15			11/16/06	1500		1	✓								S	X																X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	11/17/06	0900			
			Received by ELOT: [signature]	11/17/06	9:00

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: 1.0 °C (4oz glass)

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 11/17/08 9:00

Lab ID # : 08K17023

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

_____

Corrective Action Taken:

_____

_____

_____

Check all that Apply:

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

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: Jalmat 1

Project Number: 2000-10606

Location: Clay Osborn Ranch

Lab Order Number: 6L05002

Report Date: 12/13/06

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM1- W4	6L05002-01	Soil	12/04/06 12:40	12-04-2006 17:10
JM1- W4W	6L05002-02	Soil	12/04/06 12:42	12-04-2006 17:10
JM1- E4	6L05002-03	Soil	12/04/06 12:45	12-04-2006 17:10
JM1- E3W	6L05002-04	Soil	12/04/06 12:55	12-04-2006 17:10
JM1- E4W	6L05002-05	Soil	12/04/06 12:47	12-04-2006 17:10
JM1- E2W	6L05002-06	Soil	12/04/06 13:00	12-04-2006 17:10
JM1- E1W	6L05002-07	Soil	12/04/06 13:05	12-04-2006 17:10
JM1- S3W	6L05002-08	Soil	12/04/06 13:09	12-04-2006 17:10
JM1- S1W	6L05002-09	Soil	12/04/06 13:15	12-04-2006 17:10
JM1- S2W	6L05002-10	Soil	12/04/06 13:19	12-04-2006 17:10
JM1- W1W	6L05002-11	Soil	12/04/06 13:25	12-04-2006 17:10
JM1- W2W	6L05002-12	Soil	12/04/06 13:30	12-04-2006 17:10
JM1- W3W	6L05002-13	Soil	12/04/06 13:35	12-04-2006 17:10

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- W4 (6L05002-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	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		*89.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60514	12/05/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*94.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*91.4 %*	*70-130*		"	"	"	"	
JM1- W4W (6L05002-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/08/06	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		*83.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60514	12/05/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*92.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*87.6 %*	*70-130*		"	"	"	"	
JM1- E4 (6L05002-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	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		*91.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/06/06	12/06/06	EPA 8015M	

Plains All American EH & S
1301 S. County Road 1150
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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- E4 (6L05002-03) Soil									
Carbon Ranges C12-C28	**70.4**	10.0	mg/kg dry	1	EL60515	12/06/06	12/06/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**70.4**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*71.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*74.0 %*	*70-130*		"	"	"	"	
JM1- E3W (6L05002-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60701	12/07/06	12/08/06	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		*92.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/06/06	12/06/06	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		*93.0 %*	*70-130*		"	"	"	"	
JM1- E4W (6L05002-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	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		*81.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60514	12/05/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*89.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*84.8 %*	*70-130*		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- E2W (6L05002-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*87.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/06/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	**J [7.20]**	10.0	"	"	"	"	"	"	J
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*99.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*90.8 %*	*70-130*		"	"	"	"	
JM1- E1W (6L05002-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*96.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.5 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	12/06/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*116 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*111 %*	*70-130*		"	"	"	"	
JM1- S3W (6L05002-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*95.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	12/07/06	EPA 8015M	

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Organics by GC

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- S3W (6L05002-08) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60515	12/05/06	12/07/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*100 %*	*70-130*		"	"	"	"	
JM1- S1W (6L05002-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*93.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	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		*117 %*	*70-130*		"	"	"	"	
JM1- S2W (6L05002-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*92.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	20.0	mg/kg dry	2	EL60515	12/05/06	12/07/06	EPA 8015M	
Carbon Ranges C12-C28	ND	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	20.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*59.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*56.6 %*	*70-130*		"	"	"	"	*S-06*

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM1- W1W (6L05002-11) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	12/08/06	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		*86.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	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		*127 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*121 %*	*70-130*		"	"	"	"	
JM1- W2W (6L05002-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	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		*85.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	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		*116 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*107 %*	*70-130*		"	"	"	"	
JM1- W3W (6L05002-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL60707	12/07/06	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		*83.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.8 %*	*80-120*		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL60515	12/05/06	12/07/06	EPA 8015M	

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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
JM1- W3W (6L05002-13) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL60515	12/05/06	12/07/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*126 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*117 %*	*70-130*		"	"	"	"	

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1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1- W4 (6L05002-01) Soil									
% Moisture	**8.4**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- W4W (6L05002-02) Soil									
% Moisture	**17.9**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- E4 (6L05002-03) Soil									
% Moisture	**15.2**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- E3W (6L05002-04) Soil									
% Moisture	**17.7**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- E4W (6L05002-05) Soil									
% Moisture	**4.0**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- E2W (6L05002-06) Soil									
% Moisture	**18.0**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- E1W (6L05002-07) Soil									
% Moisture	**8.9**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- S3W (6L05002-08) Soil									
% Moisture	**7.6**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- S1W (6L05002-09) Soil									
% Moisture	**17.3**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- S2W (6L05002-10) Soil									
% Moisture	**18.0**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- W1W (6L05002-11) Soil									
% Moisture	**3.4**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	

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1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1- W2W (6L05002-12) Soil									
% Moisture	**4.3**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	
JM1- W3W (6L05002-13) Soil									
% Moisture	**3.2**	0.1	%	1	EL60609	12/05/06	12/06/06	% calculation	

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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 EL60514 - Solvent Extraction (GC)										
Blank (EL60514-BLK1)				Prepared: 12/05/06 Analyzed: 12/06/06						
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	*63.8*		*mg/kg*	*50.0*		*128*	*70-130*			
Surrogate: 1-Chlorooctadecane	*61.2*		"	*50.0*		*122*	*70-130*			
LCS (EL60514-BS1)				Prepared: 12/05/06 Analyzed: 12/06/06						
Carbon Ranges C6-C12	457	10.0	mg/kg wet	500		91.4	75-125			
Carbon Ranges C12-C28	411	10.0	"	500		82.2	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	868	10.0	"	1000		86.8	75-125			
Surrogate: 1-Chlorooctane	*59.0*		*mg/kg*	*50.0*		*118*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.8*		"	*50.0*		*95.6*	*70-130*			
Calibration Check (EL60514-CCV1)				Prepared: 12/05/06 Analyzed: 12/06/06						
Carbon Ranges C6-C12	240		mg/kg	250		96.0	80-120			
Carbon Ranges C12-C28	295		"	250		118	80-120			
Total Hydrocarbons	535		"	500		107	80-120			
Surrogate: 1-Chlorooctane	*62.4*		"	*50.0*		*125*	*70-130*			
Surrogate: 1-Chlorooctadecane	*64.2*		"	*50.0*		*128*	*70-130*			
Matrix Spike (EL60514-MS1)	**Source: 6L04012-01**			Prepared: 12/05/06 Analyzed: 12/06/06						
Carbon Ranges C6-C12	600	10.0	mg/kg dry	538	78.5	96.9	75-125			
Carbon Ranges C12-C28	1070	10.0	"	538	513	104	75-125			
Carbon Ranges C28-C35	6.99	10.0	"	0.00	5.40		75-125			J
Total Hydrocarbons	1670	10.0	"	1080	592	99.8	75-125			
Surrogate: 1-Chlorooctane	*57.3*		*mg/kg*	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.9*		"	*50.0*		*116*	*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 EL60514 - Solvent Extraction (GC)										
Matrix Spike Dup (EL60514-MSD1)	**Source: 6L04012-01**			Prepared: 12/05/06 Analyzed: 12/06/06						
Carbon Ranges C6-C12	685	10.0	mg/kg dry	538	78.5	113	75-125	15.3	20	
Carbon Ranges C12-C28	1130	10.0	"	538	513	115	75-125	10.0	20	
Carbon Ranges C28-C35	12.6	10.0	"	0.00	5.40		75-125		20	R4
Total Hydrocarbons	1830	10.0	"	1080	592	115	75-125	14.2	20	
Surrogate: 1-Chlorooctane	*73.2*		*mg/kg*	*100*		*73.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*73.6*		*"*	*100*		*73.6*	*70-130*			
Batch EL60515 - Solvent Extraction (GC)										
Blank (EL60515-BLK1)				Prepared: 12/05/06 Analyzed: 12/06/06						
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	*61.3*		*mg/kg*	*50.0*		*123*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.1*		*"*	*50.0*		*116*	*70-130*			
LCS (EL60515-BS1)				Prepared: 12/05/06 Analyzed: 12/06/06						
Carbon Ranges C6-C12	527	10.0	mg/kg wet	500		105	75-125			
Carbon Ranges C12-C28	473	10.0	"	500		94.6	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1000	10.0	"	1000		100	75-125			
Surrogate: 1-Chlorooctane	*59.5*		*mg/kg*	*50.0*		*119*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.3*		*"*	*50.0*		*117*	*70-130*			
Calibration Check (EL60515-CCV1)				Prepared: 12/05/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	272		mg/kg	250		109	80-120			
Carbon Ranges C12-C28	285		"	250		114	80-120			
Total Hydrocarbons	557		"	500		111	80-120			
Surrogate: 1-Chlorooctane	*64.3*		*"*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.0*		*"*	*50.0*		*124*	*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 EL60515 - Solvent Extraction (GC)										
Matrix Spike (EL60515-MS1)	**Source: 6L05002-07**			Prepared: 12/05/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	632	10.0	mg/kg dry	549	ND	115	75-125			
Carbon Ranges C12-C28	555	10.0	"	549	ND	101	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1190	10.0	"	1100	ND	108	75-125			
Surrogate: 1-Chlorooctane	*64.4*		*mg/kg*	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.5*		*"*	*50.0*		*125*	*70-130*			
Matrix Spike Dup (EL60515-MSD1)	**Source: 6L05002-07**			Prepared: 12/05/06 Analyzed: 12/07/06						
Carbon Ranges C6-C12	633	10.0	mg/kg dry	549	ND	115	75-125	0.00	20	
Carbon Ranges C12-C28	562	10.0	"	549	ND	102	75-125	0.985	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1190	10.0	"	1100	ND	108	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*64.0*		*mg/kg*	*50.0*		*128*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.9*		*"*	*50.0*		*126*	*70-130*			
Batch EL60701 - EPA 5030C (GC)										
Blank (EL60701-BLK1)				Prepared & Analyzed: 12/07/06						
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	*33.0*		*ug/kg*	*40.0*		*82.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.0*		*"*	*40.0*		*85.0*	*80-120*			
LCS (EL60701-BS1)				Prepared & Analyzed: 12/07/06						
Benzene	1.26	0.0250	mg/kg wet	1.25		101	80-120			
Toluene	1.26	0.0250	"	1.25		101	80-120			
Ethylbenzene	1.31	0.0250	"	1.25		105	80-120			
Xylene (p/m)	2.43	0.0250	"	2.50		97.2	80-120			
Xylene (o)	1.24	0.0250	"	1.25		99.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/kg*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.2*		*"*	*40.0*		*103*	*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 EL60701 - EPA 5030C (GC)										
Calibration Check (EL60701-CCV1)				Prepared: 12/07/06 Analyzed: 12/08/06						
Benzene	46.0		ug/kg	50.0		92.0	80-120			
Toluene	46.9		"	50.0		93.8	80-120			
Ethylbenzene	50.4		"	50.0		101	80-120			
Xylene (p/m)	91.7		"	100		91.7	80-120			
Xylene (o)	45.3		"	50.0		90.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.2*		*"*	*40.0*		*93.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.8*		*"*	*40.0*		*89.5*	*80-120*			
Matrix Spike (EL60701-MS1)		**Source: 6L01019-19**		Prepared & Analyzed: 12/07/06						
Benzene	1.29	0.0250	mg/kg dry	1.30	ND	99.2	80-120			
Toluene	1.30	0.0250	"	1.30	ND	100	80-120			
Ethylbenzene	1.37	0.0250	"	1.30	ND	105	80-120			
Xylene (p/m)	2.49	0.0250	"	2.60	ND	95.8	80-120			
Xylene (o)	1.26	0.0250	"	1.30	ND	96.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.7*		*ug/kg*	*40.0*		*89.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.5*		*"*	*40.0*		*109*	*80-120*			
Matrix Spike Dup (EL60701-MSD1)		**Source: 6L01019-19**		Prepared: 12/07/06 Analyzed: 12/08/06						
Benzene	1.21	0.0250	mg/kg dry	1.30	ND	93.1	80-120	6.34	20	
Toluene	1.26	0.0250	"	1.30	ND	96.9	80-120	3.15	20	
Ethylbenzene	1.37	0.0250	"	1.30	ND	105	80-120	0.00	20	
Xylene (p/m)	2.46	0.0250	"	2.60	ND	94.6	80-120	1.26	20	
Xylene (o)	1.23	0.0250	"	1.30	ND	94.6	80-120	2.40	20	
Surrogate: a,a,a-Trifluorotoluene	*38.1*		*ug/kg*	*40.0*		*95.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.4*		*"*	*40.0*		*91.0*	*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*			

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 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*			

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL60609 - General Preparation (Prep)										
Blank (EL60609-BLK1)				Prepared: 12/05/06 Analyzed: 12/06/06						
% Solids	99.8		%							
Duplicate (EL60609-DUP1)		**Source: 6L05001-01**		Prepared: 12/05/06 Analyzed: 12/06/06						
% Solids	93.3		%		93.2			0.107	20	
Duplicate (EL60609-DUP2)		**Source: 6L05006-03**		Prepared: 12/05/06 Analyzed: 12/06/06						
% Solids	93.3		%		97.3			4.20	20	

Notes and Definitions

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.
R4	Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
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: 12/13/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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Odessa, Texas 79765

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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
Call w/ verbals

Project Name: ~~[illegible]~~ Jalmat 1
Project #: 2000-10606
Project Loc: Clay Osborn Ranch
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: QL05002

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	JMI-W4			12/4/06	1240		1	X								S	X								X				X
02	JMI-W4W				1242		1									S	X								X				
03	JMI-E4				1245		1									S	X								X				
04	JMI-E3W				1255		1									S	X								X				
05	JMI-E4W				1247		1									S	X								X				
06	JMI-E2W				1300		1									S	X								X				
07	JMI-E1W				1305		1									S	X								X				
08	JMI-S3W				1309		1									S	X								X				
09	JMI-S1W				1315		1									S	X								X				
10	JMI-S2W				1319		1									S	X								X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	12/4/06	17:10			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Roland K[illegible]	12-04-06	1710

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: 0.0 °C

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:

Project Name: Talmat 1
Project #: 2000-10606
Project Loc:
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 610502

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water GL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 / 8015B	TOTAL: TPH: 418.1 / 8015B	TPH: TX 1005	TPH: 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
-11	JMI - W1W			12/4/06	1325			X								S			X									X				X
12	JMI - W2W			12/4/06	1330			X								S			X									X				X
13	JMI - W3W			12/4/06	1335			X								S			X									X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	12/4/06	17:10			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				12-04-06	1720

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: 0.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 12/4/06 17:10

Lab ID #: ELO5002

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	0.0 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

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

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: Jalmat 1

Project Number: 2000-10606

Location: None Given

Lab Order Number: 6J23003

Report Date: 10/31/06

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

Project: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM1-MW1	6J23003-01	Water	10/20/06 13:20	10-20-2006 19:05

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

Plains All American EH & S	Project: Jalmat 1	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10606	
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
JM1-MW1 (6J23003-01) Water									
Benzene	ND	0.00100	mg/L	1	EJ62606	10/26/06	10/31/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.5 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*		*80-120*	"	"	"	"	

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: Jalmat 1
Project Number: 2000-10606
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 EJ62606 - EPA 5030C (GC)										
Blank (EJ62606-BLK1)				Prepared: 10/26/06 Analyzed: 10/27/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*33.1*		*ug/l*	*40.0*		*82.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		*"*	*40.0*		*82.0*	*80-120*			
LCS (EJ62606-BS1)				Prepared: 10/26/06 Analyzed: 10/27/06						
Benzene	0.0439	0.00100	mg/L	0.0500		87.8	80-120			
Toluene	0.0444	0.00100	"	0.0500		88.8	80-120			
Ethylbenzene	0.0423	0.00100	"	0.0500		84.6	80-120			
Xylene (p/m)	0.0834	0.00100	"	0.100		83.4	80-120			
Xylene (o)	0.0428	0.00100	"	0.0500		85.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.0*		*ug/l*	*40.0*		*87.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.0*		*"*	*40.0*		*87.5*	*80-120*			
Calibration Check (EJ62606-CCV1)				Prepared: 10/26/06 Analyzed: 10/29/06						
Benzene	59.5		ug/l	50.0		119	80-120			
Toluene	56.1		"	50.0		112	80-120			
Ethylbenzene	58.4		"	50.0		117	80-120			
Xylene (p/m)	116		"	100		116	80-120			
Xylene (o)	59.0		"	50.0		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.1*		*"*	*40.0*		*92.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.0*		*"*	*40.0*		*105*	*80-120*			
Matrix Spike (EJ62606-MS1)		**Source: 6J23009-01**		Prepared: 10/26/06 Analyzed: 10/29/06						
Benzene	0.0563	0.00100	mg/L	0.0500	ND	113	80-120			
Toluene	0.0560	0.00100	"	0.0500	ND	112	80-120			
Ethylbenzene	0.0593	0.00100	"	0.0500	ND	119	80-120			
Xylene (p/m)	0.115	0.00100	"	0.100	ND	115	80-120			
Xylene (o)	0.0501	0.00100	"	0.0500	ND	100	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.4*		*ug/l*	*40.0*		*98.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*44.4*		*"*	*40.0*		*111*	*80-120*			

Plains All American EH & S	Project: Jalmat 1	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10606	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	

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 EJ62606 - EPA 5030C (GC)										
Matrix Spike Dup (EJ62606-MSD1)	**Source: 6J23009-01**			Prepared: 10/26/06 Analyzed: 10/29/06						
Benzene	0.0488	0.00100	mg/L	0.0500	ND	97.6	80-120	14.6	20	
Toluene	0.0459	0.00100	"	0.0500	ND	91.8	80-120	19.8	20	
Ethylbenzene	0.0481	0.00100	"	0.0500	ND	96.2	80-120	21.2	20	QR-02
Xylene (p/m)	0.0984	0.00100	"	0.100	ND	98.4	80-120	15.6	20	
Xylene (o)	0.0521	0.00100	"	0.0500	ND	104	80-120	3.92	20	
Surrogate: a,a,a-Trifluorotoluene	*34.3*		*ug/l*	*40.0*		*85.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.0*		*"*	*40.0*		*105*	*80-120*			

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: Jalmat 1
Project Number: 2000-10606
Project Manager: Camille Reynolds

Fax: (432) 687-4914

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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: 10/31/2006

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
Company Address:
City/State/Zip:
Telephone No:
Sampler Signature:

Project Name: Jal mt 1
Project #: 2000-10606
Project Loc:
PO #:
Fax No:
e-mail: kcoly@sdgenv.com
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 10523005

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO3	HCl 40mL glass	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 TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	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	JM1-MW1			10/20/06	1320	3	X		X						GW								X				

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	10/20/06	1905			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Jessica McManus	10-20-06	1905

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? 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
w/labels
Temperature Upon Receipt: 0.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

ate/ Time: 10/20/00 19:05

Lab ID # : 523003

itials: 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	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