

# REPORT

# DATE: JULY 2007



/R-467 Report July 2007

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 #3 Release Site

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

> SRS No. 2000-10610 NMOCD No. 1R-0467

> > **Prepared For**



333 Clay Street, Suite 1600 Houston, Texas 77002

Prepared By ENVIRONMENTAL SERVICES

**July 2007** 

#### **Table of Contents**

Executive Summary

1.0	Introduction	1
2.0	Regulatory Framework	3
3.0	Regional and Site Characteristics	3
3.1	Geological Description	3
3.2	Land Use	3
3.3	Ground Water	3
4.0	NMOCD Site Ranking	1
5.0	Site Assessment	4
5.1	Distribution of Hydrocarbons in the Unsaturated Zone	5
5.2	Distribution of Hydrocarbons in the Saturated Zone	5
6.0	Site Remediation	5
7.0	Confirmation Sampling and Comparison to	
	Remediation Guideline Standards	6
8.0	Conclusion	6

Table 1 – NMOCD Site Ranking MatrixTable 2 – Soil Sample Analytical Results Summary

Appendix AFiguresFigure 1 – Site Location MapFigure 2 – Excavation Detail

Appendix B Site Photographs

Appendix C Analytical Reports

#### **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 #3 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  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude  $32^{\circ}08'16''$  North, and Longitude  $103^{\circ}12'38''$  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. There was no 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.

Soil analytical data and information obtained from the EPI December 2001 Jalmat #3 Investigation Report was used to develop a Site Investigation Report and Site-Specific Remediation Work Plan. The Site Investigation Report and Site-Specific Remediation Work Plan dated July 2006 provided for closure of the site under three closure scenarios. The closure scenario selected to be dependent on the conditions observed in the field. These selected closure scenarios are as follows.

#### 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.

The north and south ends of the release site were remediated under Work Plan Scenario 2. The northern area excavated to 2.5 feet bgs and the southern area up to 15 feet bgs. Confirmation soil samples were collected from the floor of the excavation and at sidewalls identified 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 40-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.

A 20-foot by 20-foot area in the central area of the release site was remediated under Scenario 3.

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 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 #3 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 <u>Guidelines for Remediation of Leaks</u>, <u>Spills and Releases</u> (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 a monitor well located nearby. The depth to groundwater is consistent with the information provided in the USGS Groundwater Report 6. 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 10 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:

Depth to Groundwater	Wellhead Protection Area	<b>Distance to Surface Water</b>						
<50  feet = 20	<1000 feet from a water	<200 feet = 20						
	source, or <200 feet from a							
	domestic water source							
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 Maxin	num Concentrations						
Benzene	10	opm						
BTX	50	opm						
ТРН	100	ppm						

#### Table 1 – Site Ranking Matrix

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 17 through 19 July 2000, initial subsurface horizontal and vertical delineation was conducted by EPI with the installation of 15 soil borings installed at the site. The 15 soil borings were installed to a depth of 15 feet bgs and soil samples were collected at depths of 2, 5, 10, and 15 feet bgs, field screened with a PID, and analyzed for BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method

detection limits on the 60 soil samples. Laboratory results indicated that TPH-GRO/DRO concentrations exceeded 100 mg/kg TPH in six (6) of the soil samples and the remaining 54 soil samples were either below NMOCD 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 4,400 square feet. Based on the previous data, impacted soils above the NMOCD guidelines were expected to be shallower than 10 feet bgs. However, during site remediation, the vertical extent of soils impacted above the site-specific NMOCD cleanup guidelines was determined to extend to below 10 feet bgs in two areas. 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 a nearby site has recorded water levels of approximately 50 feet bgs. 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 4,400 square feet. The volume of excavated and blended soils totaled 820 cubic yards. The remediated area is shown in Figure 2.

The north and south ends of the release site were remediated under Work Plan Scenario 2. The northern area excavated to 2.5 feet bgs and the southern area up to 15 feet bgs. Confirmation soil samples were collected from the bottom of the excavation at side of impacted area defined by the highest PID reading and observed staining.

A 20 by 20 square foot area in the central area of the release site was remediated under Scenario 3. In this area, excavation continued to 10 feet bgs at which point the excavation was terminated. One soil sample from the excavation floor and a followup sample 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 40-mil liner was installed at 10 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. The liner was cushioned with sandy soils to protect it from puncture and tearing during the backfilling process. Installation of the 40-mil polyethylene liner at a depth of 10 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural biodegrading of contaminates in the soil.

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 40-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 soils from the excavation floor and walls. At one location, results indicated soils at 15 feet bgs were above the NMOCD cleanup guidelines. Therefore, this area of the site was closed under Closure Scenario 3 and a 20-foot by 20-foot 40-mil polyethylene liner was installed at 10 feet bgs. Final confirmation samples indicated concentrations of TPH in soils remaining in place at the liner edge ranged from 35.3 mg/kg in one wall 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 NMOCD cleanup guidelines.

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 scenarios 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 #3 release site located on the Clay Osborn Rocky Top Ranch. The site is located in the SE  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 12, Township 25 South, Range 36 East, approximately 1 mile northwest of Jal at Latitude  $32^{\circ}08'16''$  North, and Longitude  $103^{\circ}12'38''$  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 40-mil polyethylene liner installed in one area, and confirmation samples were collected and compared to the site-specific cleanup guidelines. Soil samples from the excavated areas confirm that the Jalmat #3 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. Jaimat #3 LEA COUNTY, NEW MEXICO PLAINS SRS NO: 2000-10610

SAMPLE	DEPTH	SAMPLE	LABORATORY		MET	HOD: EPA 8(	121B		METI	HOD: EPA 8(	15M	TOTAL TPH
LOCATION	ft bgs	DATE	ġ	BENZENE	TOLUENE	ЕТНУL-	М,Р-	O-XYLENE				
						BENZENE	XYLENES		C6-C12	C12-C28	C28-C35	C6-C35
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
JM3-F1	3*	12/19/2006	6L19013-01	na	na	na	na	eu	<10.0	212	113	325
JM3-F2	10**	12/20/2006	6L21006-01	0.0126 J	0.224	0.0934	0.55	0.305	<10.0	1370	229	1600
JM3-F3	10	12/20/2006	6L21006-02	<0.0250	0.0296	0.0160 J	0.104	0.0566	<10.0	<10.0	<10.0	<10.0
JM3-F4	10	12/20/2006	6L21006-03	<0.0250	0.0272	0.0167 J	0.0891	0.0456	<10.0	<10.0	<10.0	<10.0
JM3-DF1	15**	12/20/2006	7A02001-01	<0.0250	<0.0250	0.0322	<0.0250	0.0184 J	64.4	1450	149	1660
JM3-F5	5	12/21/2006	6L22004-01	<0.0250	0.0165 J	<0.0250	0.0714	0.0347	<10.0	27.6	<10.0	27.6
JM3-F6	10	12/21/2006	6L22004-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-EW2	2	12/21/2006	6L22004-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-EW5	5	12/21/2006	6L22004-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-SW2	2	12/21/2006	6L22004-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-SW5	5	12/21/2006	6L22004-06	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-WW2	2	12/21/2006	6L22004-07	<0.0250	<0.0250	0.0244 J	<0.0250	0.0171 J	<10.0	<10.0	<10.0	<10.0
JMI3-WW5	5*	12/21/2006	6L22004-08	<0.0250	0.0541	0.0225 J	0.133	0.0682	<10.0	152	56.2	208
JM3-F7	10	12/21/2006	6L22004-09	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-F8	10	12/21/2006	6L22004-10	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-ZWW2	2	12/21/2006	6L22004-11	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	35.3	<10.0	35.3
JM3-F9	15'	12/21/2006	6L22004-12	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-F10	15'	12/21/2006	6L22004-13	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-NW2	2	12/21/2006	6L22004-14	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-3WW2	2	12/21/2006	6L22004-15	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-2EW2	2*	12/21/2006	6L22004-16	0.00948 J	0.449	0.259	1.13	0.392	<10.0	68.9	38.8	108
EXCV FLR	12*	1/4/2007	7A05011-01	na	na	na	na	ຍເເ	63.2	4610	642	5320
N S/W	12	1/4/2007	7A05011-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	68	13.2	81.2
E S/W	12	1/4/2007	7A05011-03	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
W S/W	12	1/4/2007	7A05011-04	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
S S/W	12	1/4/2007	7A05011-05	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	63.9	2.64 J	6.69
JM3-2WW5	5	1/9/2007	7A10007-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-3EW2	2	1/9/2007	7A10007-02	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-SF15	15	1/10/2007	7A11001-01	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<10.0	<10.0	<10.0	<10.0
JM3-SP	stockpile	1/17/2007	7A17007-01	na	na	na	na	na	32.4	155	4.63 J	187

Soils subsequently excavated after sample collection.
 Soils subsequently covered by impermeable liner.
 indicates the constituent was not detected
 J indicates estimated value (detected below method reporting limit na not analyzed

## Appendix A Figures





### Appendix B Site Photographs



Jalmat 3 – Excavated Area Facing South



Jalmat 3 – North-Central Excavation Prepared for Liner



Jalmat 3 – Liner Installation



Jalmat 3 – Southern Excavation Area



Jalmat 3 – Backfilled Area Facing South

# Appendix C Analytical Reports

.

r

10



#### Analytical Report

#### **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 6L19013

Report Date: 12/20/06

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

Fax: (432) 687-4914

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- F1	- 6L19013-01	Soil	12/19/06 13:30	12-19-2006 17:00

Project: Jalmat #3 Project Number: 2000-10610 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
JM3- F1 (6L19013-01) Soil							<u></u>		
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL61918	12/19/06	12/20/06	EPA 8015M	
Carbon Ranges C12-C28	212	10.0	"	н	"	"		"	
Carbon Ranges C28-C35	113	10.0	**		н	"	п	'n	
Total Hydrocarbons	325	10.0	**	н		"	п	н	
Surrogate: 1-Chlorooctane		126 %	70-1.	30	11	"	n	"	
Surrogate: 1-Chlorooctadecane		157 %	70-1.	30	"	"	"	"	S-04

Environmental Lab of Texas

Project: Jalmat #3 Project Number: 2000-10610 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
JM3- F1 (6L19013-01) Soil									
% Moisture	12.5	0.1	%	1	EL62003	12/19/06	12/20/06	% calculation	

Environmental Lab of Texas

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

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL61918 - Solvent Extraction (GC)					<del></del>					
Blank (EL61918-BLK1)				Prepared:	12/19/06 Ai	nalyzed: 12	2/20/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet						· · · ·	
Carbon Ranges C12-C28	ND	10.0								
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0								
Surrogate: 1-Chlorooctane	42.5		mg/kg	50.0		85.0	70-130			
Surrogate: 1-Chlorooctadecane	49.6		"	50.0		<i>99.2</i>	70-130			
LCS (EL61918-BS1)				Prepared:	12/19/06 Ar	nalyzed: 12	2/20/06			
Carbon Ranges C6-C12	609	10.0	mg/kg wet	500		122	75-125			
Carbon Ranges C12-C28	521	10.0	н	500		104	75-125			
Carbon Ranges C28-C35	ND	10.0	11	0.00			75-125			
Total Hydrocarbons	1130	10.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	58.8		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	50.7		"	50.0		101	70-130			
Calibration Check (EL61918-CCV1)				Prepared: I	12/19/06 Ar	nalyzed: 12	2/20/06			
Carbon Ranges C6-C12	231		mg/kg	250		92.4	80-120		········	
Carbon Ranges C12-C28	298		n	250		119	80-120			
Total Hydrocarbons	529		"	500		106	80-120			
Surrogate: 1-Chlorooctane	50.7		"	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	51.5		"	50.0		103	70-130			
Duplicate (EL61918-DUP1)	Sou	rce: 6L18001	-13	Prepared: 1	12/19/06 Ar	nalyzed: 12	/20/06			
Carbon Ranges C6-C12	ND	10.0	mg/kg dry		ND				20	
Carbon Ranges C12-C28	ND	10.0	"		ND				20	
Carbon Ranges C28-C35	ND	10.0	11		ND				20	
Total Hydrocarbons	ND	10.0			ND				20	
Surrogate: 1-Chlorooctane	51.7		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	61.0		"	50.0		122	70-130			

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

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

#### Batch EL61918 - Solvent Extraction (GC)

Matrix Spike (EL61918-MS1)	Sou	rce: 6L18001	-13	Prepared: 1	2/19/06 A	nalyzed: 12	2/20/06
Carbon Ranges C6-C12	487	10.0	mg/kg dry	550	ND	88.5	75-125
Carbon Ranges C12-C28	529	10.0	U U	550	ND	96.2	75-125
Carbon Ranges C28-C35	ND	10.0	н	0.00	ND '		75-125
Total Hydrocarbons	1020	10.0	н	1100	ND	92.7	75-125
Surrogate: 1-Chlorooctane	53.6		mg/kg	50.0		107	70-130
Surrogate: 1-Chlorooctadecane	52.1		"	50.0		104	70-130

Environmental Lab of Texas

Plains All American EH & S	Project:	Jalmat #3	 Fax: (432) 687-4914
1301 S. County Road 1150	Project Number:	2000-10610	
Midland TX, 79706-4476	Project Manager:	Camille Reynolds	

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62003 - General Preparation (Prep)										
Blank (EL62003-BLK1)				Prepared:	12/19/06 A	nalyzed: 12	2/20/06			
% Moisture	ND	0.1	%							
Duplicate (EL62003-DUP1)	Source: 6L18012-01			Prepared: 1	12/19/06 A	nalyzed: 12	2/20/06			
% Moisture	4.3	0.1	%		4.6			6.74	20	· ·

Environmental Lab of Texas

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### **Notes and Definitions**

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

- 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 turk Date:

12/20/2006

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

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

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

Environmental Lab of Texas



a the same the transmission of transmission of

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

Client	Pams
Date/ Time:	12/19/06 5:05
Lab ID # ·	1eL19013
Initials	CK

#### Sample Receipt Checklist

				Client	Initials
#1	Temperature of container/ cooler?	Yes	No -	2.5 °C	<u> </u>
#2	Shipping container in good condition?	Reg	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?	Xas	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	800	No		
#8	Chain of Custody agrees with sample label(s)?	Aes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Ves	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Teg	No		
#11	Containers supplied by ELOT?	/ es	No		
#12	Samples in proper container/ bottle?	Pes	No	See Below	
#13	Samples properly preserved?	Xea	No	See Below	
#14	Sample bottles intact?	Xas	No		
#15	Preservations documented on Chain of Custody?	A BE	No		
#16	Containers documented on Chain of Custody?	Fes	No		
1#17	Sufficient sample amount for indicated test(s)?	Yas	No	See Below	
#18	All samples received within sufficient hold time?	(es	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
,#20	VOC samples have zero headspace?	Nes	No	Not Applicable	

#### Variance Documentation

Contact.		Contacted by:	Date/ Time:	
Regarding;				
Corrective Ac	tion Taken:	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
•				

Check all that Apply:

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event



#### Analytical Report

#### **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 6L21006

Report Date: 12/31/06

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- F2	6L21006-01	Soil	12/20/06 11:00	12-21-2006 10:05
JM3- F3	6L21006-02	Soil	12/20/06 10:55	12-21-2006 10:05
JM3- F4	6L21006-03	Soil	12/20/06 11:05	12-21-2006 10:05

#### Organics by GC

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- F2 (6L21006-01) Soil								_	
Benzene	J [0.0126]	0.0250	mg/kg dry	25	EL62220	12/22/06	12/27/06	EPA 8021B	
Toluene	0.224	0.0250	н		n	"	11	"	
Ethylbenzene	0.0934	0.0250	"	"	"	н	"	"	
Xylene (p/m)	0.550	0.0250	n		н	"	"	n	,
Xylene (o)	0.305	0.0250	"	и	"	11	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62117	12/21/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	1370	10.0	"		n	tr	n	"	
Carbon Ranges C28-C35	229	10.0	"	"	"	"	"		
Total Hydrocarbons	1600	10.0		п	11	"	**	"	
Surrogate: 1-Chlorooctane		74.4 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		83.1 %	70-1	130	"	"	"	"	.*
JM3- F3 (6L21006-02) Soil			-			_			
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/27/06	EPA 8021B	
Toluene	0.0296	0.0250	"		"	"	н	11	
Ethylbenzene	J [0.0160]	0.0250	**	и	п	11	"	•	
Xylene (p/m)	0.104	0.0250	"			"	п	u.	
Xylene (0)	0.0566	0.0250			N	11	"		
Surrogate: a,a,a-Trifluorotoluene		107 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	80-1	20	. "	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	I	EL62117	12/21/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	н	u	п	11	"	11	
Carbon Ranges C28-C35	ND	10.0	ų	**	n	n	n	"	
Total Hydrocarbons	ND	10.0		"		11	"	и	
Surrogate: 1-Chlorooctane		70.3 %	70-1	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		75.0 %	70-1	130	"	"	"	"	
JM3- F4 (6L21006-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/27/06	EPA 8021B	
Toluene	0.0272	0.0250	н	"	и	н	"	17	
Ethylbenzene	J [0.0167]	0.0250	"	**	"	"	"	u	
Xylene (p/m)	0.0891	0.0250	н		11	11	"	н	
Xylene (0)	0.0456	0.0250	"	"	u	n	"	"	
Surrogate: a,a,a-Trifluorotoluene		110 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-1	120	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62117	12/21/06	12/22/06	EPA 8015M	
									<u></u>

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety,

with written approval of Environmental Lab of Texas.

Fax: (432) 687-4914

#### Organics by GC

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- F4 (6L21006-03) Soil									
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL62117	12/21/06	12/22/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"	"	. "	۳.	"	11	
Total Hydrocarbons	ND	10.0	. "	**		н	"	"	
Surrogate: 1-Chlorooctane		88.0 %	70-13	0	"	"	"	"	
Surrogate: 1-Chlorooctadecane		102 %	70-13	0	"	"	"	"	

Environmental Lab of Texas

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

Page 3 of 9

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- F2 (6L21006-01) Soil									
% Moisture	20.1	0.1	%	ì	EL62206	12/21/06	12/22/06	% calculation	
JM3- F3 (6L21006-02) Soil									
% Moisture	20.9	0.1	%	1	EL62206	12/21/06	12/22/06	% calculation	
JM3- F4 (6L21006-03) Soil									
% Moisture	13.6	0.1	%	1	EL62206	12/21/06	12/22/06	% calculation	

Environmental Lab of Texas

1301 S. County Road 1150Project Number: 2000-10610Midland TX, 79706-4476Project Manager: Camille Reynolds										
· · · · · · · · · · · · · · · · · · ·	0	rganics by	, GC - Q	uality C	ontrol					
	Environmental Lab of Texas									
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62117 - Solvent Extraction (GC)					·					
Blank (EL62117-BLK1)				Prepared:	12/21/06 A	nalyzed:	12/22/06			
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	11							
Surrogate: 1-Chlorooctane	60.0		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	64.2		"	50.0		128	70-130			
LCS (EL62117-BSI)				Prepared:	12/21/06 A	nalyzed:	12/22/06			
Carbon Ranges C6-C12	1120	10.0	mg/kg wet	1000		112	75-125			
Carbon Ranges C12-C28	903	10.0	н	- 1000		90.3	75-125			
Carbon Ranges C28-C35	ND	10.0	11	0.00			75-125			
Total Hydrocarbons	2020	10.0	и	2000		101	75-125			
Surrogate: 1-Chlorooctane	79.0		mg/kg	100		79.0	70-130			
Surrogate: 1-Chlorooctadecane	76.4		"	. 100		76.4	70-130			
Calibration Check (EL62117-CCV1)				Prepared:	12/21/06 A	analyzed:	12/22/06			
Carbon Ranges C6-C12	210		mg/kg	250		84.0	80-120			
Carbon Ranges C12-C28	273		"	250		109	80-120			
Total Hydrocarbons	483		"	500		96.6	80-120			
Surrogate: 1-Chlorooctane	50.0		n	50.0		100	70-130			
Surrogate: 1-Chlorooctadecane	51.6		. "	50.0		103	70-130			
Matrix Spike (EL62117-MS1)	So	urce: 6L21003	3-25	Prepared:	12/21/06 A	nalyzed:	12/22/06			
Carbon Ranges C6-C12	821	10.0	mg/kg dry	731	ND	112	75-125			
Carbon Ranges C12-C28	642	10.0	"	731	ND	87.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1460	10.0	"	1460	ND	100	75-125			
Surrogate: 1-Chlorooctane	. 75.3		mg/kg	100		75.3	70-130			
Surrogate: 1-Chlorooctadecane	72.5		"	100		72.5	70-130			

Project: Jalmat #3

Environmental Lab of Texas

Surrogate: 1-Chlorooctadecane

Plains All American EH & S

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

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 EL62117 - Solvent Extraction (GC)										

Matrix Spike Dup (EL62117-MSD1)	Source	Source: 6L21003-25				Prepared: 12/21/06 Analyzed: 12/22/06					
Carbon Ranges C6-C12	810	10.0	mg/kg dry	731	ND	111	75-125	0.897	20		
Carbon Ranges C12-C28	658	10.0	"	731	ND	90.0	75-125	2.47	20		
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20		
Total Hydrocarbons	1470	10.0	п	1460	ND	101	75-125	0.995	20		
Surrogate: 1-Chlorooctane	78.7		mg/kg	100		78.7	70-130				
Surrogate: 1-Chlorooctadecane	71.0		"	100		71.0	70-130				

# Batch EL62220 - EPA 5030C (GC)

Blank (EL62220-BLK1)				Prepared: 12/22/	06 Analyzed: 12	/28/06	
Benzene	ND	0.0250	mg/kg wet	· · · · · · · · · · · · · · · · · · ·			
Toluene	ND	0.0250	н				
Ethylbenzene	ND	0.0250	"				
Xylene (p/m)	ND	0.0250	**				
Xylene (0)	ND	0.0250	"				
Surrogate: a,a,a-Trifluorotoluene	44.2		ug/kg	40.0.	110	80-120	 
Surrogate: 4-Bromofluorobenzene	43.6		"	40.0	109	80-120	
LCS (EL62220-BS1)				Prepared: 12/22/	06 Analyzed: 12	/28/06	
Benzene	1.13	0.0250	mg/kg wet	1.25	90.4	80-120	 
Toluene	1.28	0.0250	"	1.25	102	80-120	
Ethylbenzene	1,33	0.0250	"	1.25	106	80-120	
Xylene (p/m)	2.73	0.0250		2.50	109	80-120	
Xylene (0)	1.27	0.0250	"	1.25	102	80-120	
Surrogate: a,a,a-Trifluorotoluene	41.0		ug/kg	40.0	102	80-120	 
Surrogate: 4-Bromofluorobenzene	45.9		"	40.0	115	80-120	

Environmental Lab of Texas

Fax: (432) 687-4914

# Organics by GC - Quality Control

**Environmental Lab of Texas** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL62220 - EPA 5030C (GC)										
Calibration Check (EL62220-CCV1)				Prepared:	12/22/06 A	nalyzed: 12	2/29/06			
Benzene	58.8		ug/kg	50.0		118	80-120			
Toluene	55.7		н	50.0		111	80-120			
Ethylbenzene	58.1		"	50.0		116	80-120			
Xylene (p/m)	101		11	100		101	80-120			
Xylene (o)	46.3		"	50.0		92.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	48.0		"	40.0		120	80-120			
Surrogate: 4-Bromofluorobenzene	44.9		"	40.0		112	80-120			
Matrix Spike (EL62220-MS1)	Sou	rce: 6L22004	-04	Prepared:	12/22/06 A	nalyzed: 1	2/28/06			
Benzene	1.47	0.0250	mg/kg dry	1.56	ND	94.2	80-120			
Toluene	1.45	0.0250	и	1.56	NĎ	92.9	80-120			
Ethylbenzene	1.29	0.0250	м	1.56	ND	82.7	80-120			
Xylene (p/m)	2.75	0.0250	"	3.13	ND	87.9	80-120		•	
Xylene (o)	1.35	0.0250	н	1.56	ND	86.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.7		ug/kg	40.0		94.2	80-120			
Surrogate: 4-Bromofluorobenzene	42.2		"	40.0		106	80-120			
Matrix Spike Dup (ÉL62220-MSD1)	Sou	rce: 6L22004	-04	Prepared:	12/22/06 A	nalyzed: 12	2/28/06			
Benzene	1.77	0.0250	mg/kg dry	1.56	ND	113	80-120	18.1	20	
Toluene	1.77	0.0250	"	1.56	ND <sup>·</sup>	113	80-120	19.5	20	
Ethylbenzene	1.75	0.0250	н	1.56	ND	112	80-120	30.1	20	R
Xylene (p/m)	3.48	0.0250	11	3.13	ND	111	80-120	23.2	20	R
Xylene (o)	1.63	0.0250	n	1,56	ND	104	80-120	18.4	20	
Surrogate: a,a,a-Trifluorotoluene	46.0		ug/kg	40.0		115	80-120			
Surrogate: 4-Bromofluorobenzene	42.8		"	40.0		107	80-120			

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	~
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL62206 - General Preparation (Prep)										
Blank (EL62206-BLK1)				Prepared:	12/21/06	Analyzed: 12	/22/06			
% Solids	100		%						- 18	
Duplicate (EL62206-DUP1)	Sour	ce: 6L21001-	01	Prepared: 1	2/21/06	Analyzed: 12	/22/06			
% Solids	86.4		%		86.0			0.464	20	
Duplicate (EL62206-DUP2)	Sour	ce: 6L21003-	15	Prepared: 1	12/21/06	Analyzed: 12	/22/06			
% Solids	87.4		%		86.6			0.920	20	

Environmental Lab of Texas

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

Page 8 of 9

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### **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

Kaland K Julies Report Approved By:

Date: 12/31/2006

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.

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

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

Environmental Lab of Texas

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

Page 9 of 9

TAT bisbriel2 Laboratory Comments: Sample Containers Intact? z v Q FedEx Lone Star **NPDES 8**0 Pin ST (Pre-Schodule) 24, 48, 72 hrs ç Ś Karr 記録が、以外の Project #: 2000 - 10610 Phone: 432-563-1800 Fax: 432-563-1713 NO'B'W 🗌 trrp CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Project Loc: Clay Osberra HΟ ເວສ M Labels on container(s) Custody seals on container(s) Custody seals on cooler(s) Upon Receipt: VOCs Free of Headspace? BTE 8021 Brass or STEX 8260  $\times$ Br/Client Rep. 7 (? UPS  $\sim$ Jalmat Sample Hand Delivered Semivolatiles Analvze salitelov Standard es off dails. As Ag Ba Cd Cr Pb Hg Se TCLP: Temperatur SAR / ESP / CEC TOTAL D (viiniles/A, Alkalinity) Project Name: :# 0d Calions (Ca, Mg, Va, K) L Report Format: 0 I VI I VIII 9001 X 1002 9001 XT માના Time e Me me Ŧ 80158 WISLOS 1.814 Har  $\mathbf{\times}$ spearly under SIGBIOH-UON-HN Matrix JOLEWONDOR - WO 05/105=5 Ċ 555 DVV=Drinking Vater SL=Sludge Date Date Other ( Specify) Preservation & # of Containers ٢ Scheenv auon Odessa, Texas 79765 12600 West I-20 East COZSZEN HOWN OS<sup>Z</sup>H юн °ONH 901 2 > 7 - .... otal #, of Containers . C . V iela Fillered e-mail: Fax No: 105 1100 0 25 40 Delqme2 emiT Received by ELOT: 0/00 00 00 R 40/04 Received by: Received by: 201 2 0, Levnelds Date Sampled Ч <u>N</u> Ending Depth Ū, Environmental Lab of Texas line lime ŝ Ð Beginning Depth Date FIELD CODE 900 Sampler Signature: Company Address: 20 2  $[\infty]$ 4 Project Manager: U Company Name Telephone No: City/State/Zip: } • J.M3 543 Special Instructions: 23 13 Relincuished by: Relinquished by Rélinquished by ŀ (lab use only) ORDER #: (Vino seu det) # 8A d k  $\tilde{c}$ · · · · · · · · ·

# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client	Plains
Date/ Time:	12/21/04 10:03
Lab ID # ·	421006
Initials	C/c

# Sample Receipt Checklist

		<b></b>	·····	Client	Initials
#1	Temperature of container/ cooler?	Yes	No	0,5 °C	
#2	Shipping container in good condition?	TES	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?	¥es	No		
#7 ·	Chain of Custody signed when relinquished/ received?	Xes	No		
#8	Chain of Cuslody agrees with sample label(s)?	Xes	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?	Xes-	No		
#11	Containers supplied by ELOT?	XES	No		
#12	Samples in proper container/ bottle?	(Fes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	(es	No		
#16	Containers documented on Chain of Custody?	Pes	No		
#17	Sufficient sample amount for indicated test(s)?	Nes	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:		ate/ Time:	
Regarding:				
Courseline Ashee Teleos	 · · · · · · · · · · · · · · · · · · ·	<u> </u>		
	 ·			
Check all that Apply:	See attached e-mail/ fax Client understands and would Cooling process had begun s	f like to proceed with analy shortly after sampling event	sis	



# Analytical Report

# **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 7A02001

Report Date: 01/05/07

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds Fax: (432) 687-4914

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- DF1	7A02001-01	Soil	12/20/06 14:05	12-21-2006 10:05

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

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- DF1 (7A02001-01) Soil			·						
Benzene	ND	0.0250	mg/kg dry	25	EA70219	01/02/07	01/02/07	EPA 8021B	
Toluene	ND	0.0250	34	**	"			"	
Ethylbenzene	0.0322	0.0250	"	н	"	н	"	**	
Xylene (p/m)	ND	0.0250	**	и	"	п	"		
Xylene (0)	J [0.0184]	0.0250	"	"	*	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		96.8 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	64.4	10.0	mg/kg dry	1	EA70212	01/02/07	01/02/07	EPA 8015M	
Carbon Ranges C12-C28	1450	10.0	п	••	v	н	"		
Carbon Ranges C28-C35	149	10.0	"		11	п	"	"	
Total Hydrocarbons	1660	10.0	"	"	11	n.	"	"	
Surrogate: 1-Chlorooctane		124 %	70-1	30	"	"	"	"	
Surrogate: I-Chlorooctadecane		152 %	70-1	30	,,	"	"	"	S-04

Environmental Lab of Texas

# Project: Jalmat #3 Project Number: 2000-10610

Fax: (432) 687-4914

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
JM3- DF1 (7A02001-01) Soil								·····	
% Moisture	15.9	0.1	%	1	EA70301	01/02/07	01/03/07	% calculation	

Environmental Lab of Texas

# **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

		D on out!		C	6					
Analyte .	Result	Limit	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA70212 - Solvent Extraction (GC)										
Blank (EA70212-BLK1)				Prepared &	k Analyzed	: 01/02/07				
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							·
Carbon Ranges C12-C28	ND	10.0	н							
Carbon Ranges C28-C35	ND	10.0	u							
Total Hydrocarbons	ND	10.0	н							
Surrogate: 1-Chlorooctane	57.7		mg/kg	50.0		115	70-130			
Surrogate: 1-Chlorooctadecane	64.2		"	50.0		128	70-130			
LCS (EA70212-BS1)				Prepared 8	k Analyzed	: 01/02/07				
Carbon Ranges C6-C12	596	10.0	mg/kg wet	500		119	75-125			
Carbon Ranges C12-C28	487	10.0	"	500		97.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1080	10.0		1000		108	75-125			
Surrogate: 1-Chlorooctane	55.1		mg/kg	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	59.6		0	50.0		119	70-130			
Calibration Check (EA70212-CCV1)				Prepared &	k Analyzed	: 01/02/07				
Carbon Ranges C6-C12	218		mg/kg	250		87.2	80-120			
Carbon Ranges C12-C28	281		"	250		112	80-120			
Total Hydrocarbons	499		"	500		99.8	80-120			
Surrogate: 1-Chlorooctane	43.6		"	50.0		87.2	70-130			
Surrogate: 1-Chlorooctadecane	43.8		"	50.0		87.6	70-130			
Matrix Spike (EA70212-MS1)	So	urce: 6L29015	5-04	Prepared &	k Analyzed	: 01/02/07				
Carbon Ranges C6-C12	692	10.0	mg/kg dry	555	ND	125	75-125			
Carbon Ranges C12-C28	638	10.0	"	555	82.7	100	75-125			
Carbon Ranges C28-C35	58.1	10.0	н	0.00	52.8		75-125			
Total Hydrocarbons	1390	10.0		1110	136	113	75-125			
Surrogate: 1-Chlorooctane	60.2		mg/kg	50.0		120	70-130			
Surrogate: 1-Chlorooctadecane	64.2		"	50.0		128	70-130			

Environmental Lab of Texas

# **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 EA70212 - Solvent Extraction (GC)										
Matrix Spike Dup (EA70212-MSD1)	Sou	rce: 6L29015-	04	Prepared 8	z Analyzed	01/02/07				
	(07	10.0								

Carbon Ranges C6-C12	687	10.0 mg/kg dry	555	ND	124	75-125	0.803	20	
Carbon Ranges C12-C28	633	10.0 "	555	82.7	99.2	75-125	0.803	20	
Carbon Ranges C28-C35	55.3	10.0 "	0.00	52.8		75-125		20	
Total Hydrocarbons	1380	10.0 "	1110	136	112	75-125	0.889	20	
Surrogate: 1-Chlorooctane	57.2	mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	62.9	"	50.0		126	70-130			

#### Batch EA70219 - EPA 5030C (GC)

Blank (EA70219-BLK1)		Prepared & Analyzed: 01/02/07								
Benzene	ND	0.0250	mg/kg wet				······································			
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	н							
Xylene (p/m)	ND	0.0250	"							
Xylene (0)	ND	0.0250	**							
Surrogate: a,a,a-Trifluorotoluene	41.3		ug/kg	40.0	103	80-120				
Surrogate: 4-Bromofluorobenzene	34.5		"	40.0	86.2	80-120				
LCS (EA70219-BS1)				Prepared: 01/02/	07 Analyzed: 01	1/03/07				
Benzene	1.18	0.0250	mg/kg wet	1.25	94.4	80-120	· · · · · · · · · · · · · · · · · · ·			
Toluene	1.25	0.0250	11	1.25	100	80-120				
Ethylbenzene	1.28	0.0250		1.25	102	80-120				
Xylene (p/m)	2.71	0.0250	"	2.50	108	80-120				
Xylene (0)	1.25	0.0250		1.25	100	80-120				
Surrogate: a,a,a-Trifluorotoluene	36.2		ug/kg	40.0	90.5	80-120				
Surrogate: 4-Bromofluorobenzene	35.6		"	40.0	89.0	80-120				

Environmental Lab of Texas

#### Project: Jalmat #3 Project Number: 2000-10610

Fax: (432) 687-4914

Project Number: 2000-10610 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 EA70219 - EPA 5030C (GC)										
Calibration Check (EA70219-CCV1)				Prepared &	& Analyzed:	01/02/07				
Benzene	52.0		ug/kg	50.0		104	80-120			
Toluene	52.3		"	50.0		105	80-120			
Ethylbenzene	52.5		"	50.0		105	80-120			
Xylene (p/m)	99.8		"	100		99.8	80-120			
Xylene (0)	49.0		0	50.0		98.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.3		"	40.0		95.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.7		"	40.0		81.8	80-120			
Matrix Spike (EA70219-MS1)	Source: 7A02001-01			Prepared &	& Analyzed:	01/02/07				
Benzene	1.40	0.0250	mg/kg dry	1.49	ND	94.0	80-120			
Toluene	1.51	0.0250	"	1.49	ND	101	80-120			
Ethylbenzene	1.45	0.0250	"	1.49	0.0322	95.2	80-120			
Xylene (p/m)	3.22	0.0250	"	2.97	ND	108	80-120			
Xylene (o)	1.48	0.0250	"	1.49	0.0184	98.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.2		ug/kg	40.0		93.0	80-120			
Surrogate: 4-Bromofluorobenzene	43.2		"	40.0		108	80-120			
Matrix Spike Dup (EA70219-MSD1)	Sou	rce: 7A02001	-01	Prepared &	& Analyzed:	01/02/07				
Benzene	1.30	0.0250	mg/kg dry	1.49	ND	87.2	80-120	7.51	20	
Toluene	1.38	0.0250	"	1.49	ND	92.6	80-120	8.68	20	
Ethylbenzene	1.43	0.0250	"	1.49	0.0322	93.8	80-120	1.48	20	
Xylene (p/m)	2.95	0.0250	"	2.97	ND	99.3	80-120	8.39	20	
Xylene (0)	1.43	0.0250	"	1.49	0.0184	94.7	80-120	3.53	20	
Surrogate: a,a,a-Trifluorotoluene	32.4		ug/kg	40.0		81.0	80-120			
Surrogate: 4-Bromofluorobenzene	34.5		"	40.0		86.2	80-120			

Environmental Lab of Texas

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

Page 6 of 8

# 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 EA70301 - General Preparation (Prep	)									
Blank (EA70301-BLK1)				Prepared: 0	1/02/07 A	nalyzed: 01	/03/07			
% Solids	99.8		%							
Duplicate (EA70301-DUP1)	Sou	rce: 6L29015-	01	Prepared: 0	01/02/07 A	nalyzed: 01	/03/07			
% Solids	84.0		%		86.0			2.35	20	

Environmental Lab of Texas

#### **Notes and Definitions**

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

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

Raland K Julias Report Approved By:

Date: 1/5/2007

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

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

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

Environmental Lab of Texas





# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Cherit	Plains
Date/ Time:	12/21/06/05:05
Lab ID # ·	6121006 /1A02001
Initials	Ck_

# Sample Receipt Checklist

					lient Initials
#1	Temperature of container/ cooler?	Yes	No	C,S °C	
#2	Shipping container in good condition?	TES	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?	Xes	No		
#6	Sample instructions complete of Chain of Custody?	Xes	No		
#7	Chain of Custody signed when relinquished/ received?	Kes	No		
#8	Chain of Custody agrees with sample label(s)?	) ( CTS)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	¥ <del>e</del> s	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Xes-	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?	(es	No		
#16	Containers documented on Chain of Custody?	fes	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	
#15	Subcontract of sample(s)?	Yes	No	Not-Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	1

# 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

# Jeanne McMurrey

From:	"KCody" <kcody@sdgenv.com></kcody@sdgenv.com>
То:	"Jeanne McMurrey" <jeanne@elabtexas.com></jeanne@elabtexas.com>
Sent:	Tuesday, January 02, 2007 8:27 AM
Subject:	RE: Report #6L21006 Jalmat #3

#### Jeanne,

Please run TPH 8015M and BTEX 8021 on the sample JM3-DF1. This sample was collected on 12/20/06 and delivered on 12/21/06 and was placed on hold.

Thanks,

Kenneth

-----Original Message----- **From:** Jeanne McMurrey [mailto:jeanne@elabtexas.com] **Sent:** Sunday, December 31, 2006 2:52 PM **To:** Kellie Carter; Daniel M. Bryant; Camille Reynolds; Kenneth Cody **Subject:** Re: Report #6L21006 Jalmat #3

Jeanne McMurrey Environmental Lab of Texas I, Ltd. 12600 West I-20 East Odessa, Texas 79765 432-563-1800

--

This message has been scanned for viruses and dangerous content by **Basin Broadband**, **Inc.**, utilizing DefenderMX technology, and is believed to be clean.



# Analytical Report

# **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: None Given

Lab Order Number: 6L22004

Report Date: 01/03/07

# Project:Jalmat #3Project Number:2000-10610Project Manager:Camille Reynolds

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- F5	6L22004-01	Soil	12/21/06 11:15	12-22-2006 08:30
JM3- F6	6L22004-02	Soil	12/21/06 11:30	12-22-2006 08:30
JM3- EW2	6L22004-03	Soil	12/21/06 11:40	12-22-2006 08:30
JM3- EW5	6L22004-04	Soil	12/21/06 11:50	12-22-2006 08:30
JM3- SW2	6L22004-05	Soil	12/21/06 12:00	12-22-2006 08:30
JM3- SW5	6L22004-06	Soil	12/21/06 12:05	12-22-2006 08:30
JM3- WW2	6L22004-07	Soil	12/21/06 12:10	12-22-2006 08:30
JM3- WW5	6L22004-08	Soil	12/21/06 12:15	12-22-2006 08:30
JM3- F7	6L22004-09	Soil	12/21/06 12:30	12-22-2006 08:30
JM3- F8	6L22004-10	Soil	12/21/06 12:40	.12-22-2006 08:30
JM3- ZWW2	6L22004-11	Soil	12/21/06 12:45	12-22-2006 08:30
JM3- F9	6L22004-12	Soil	12/21/06 12:50	12-22-2006 08:30
JM3- F10	6L22004-13	Soil	12/21/06 13:15	12-22-2006 08:30
JM3- NW2	6L22004-14	Soil	12/21/06 13:20	12-22-2006 08:30
JM3- 3WW2	6L22004-15	Soil	12/21/06 13:30	12-22-2006 08:30
JM3- 2EW2	6L22004-16	Soil	12/21/06 13:25	12-22-2006 08:30

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### Organics by GC

#### **Environmental Lab of Texas**

	D14	Reporting	1 Jacks		_				
Analyte	Kesult	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- F5 (6L22004-01) Soil								<u></u>	
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	J [0.0165]	0.0250	"	"	11	"	п	"	J
Ethylbenzene	ND	0.0250	н	"	*	"		н	
Xylene (p/m)	0.0714	0.0250	н	"	"	"	"	U.	
Xylene (o)	0.0347	0.0250		"		*		u	
Surrogate: a,a,a-Trifluorotoluene		113 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	27.6	10.0	"		"	"	н	91	
Carbon Ranges C28-C35	ND	10.0	**	"		"	н	и	
Total Hydrocarbons	27.6	10.0	· H	"	**	"	п	51	
Surrogate: 1-Chlorooctane		108 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-1	30	"	"	"	"	
JM3- F6 (6L22004-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/27/06	EPA 8021B	
Toluene	ND	0.0250	"		U II	"	"	"	
Ethylbenzene	ND	0.0250	н	"	11	н	"	"	
Xylene (p/m)	ND	0.0250		۳.	"	н	n	"	
Xylene (o)	ND	0.0250	"	**	"		н	"	
Surrogate: a,a,a-Trifluorotoluene		81.5 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.8 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	**	".	"		"	۳.	
Carbon Ranges C28-C35	ND	10.0	н	"		U.	u.	**	
Total Hydrocarbons	ND	10.0		"	"	"	н	"	
Surrogate: 1-Chlorooctane		104 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-1	30	"	"	"	IJ	
JM3- EW2 (6L22004-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	"		"	17	
Ethylbenzene	ND	0.0250	"	"	"	"	n	"	
Xylene (p/m)	ND	0.0250		н	"	н	н	n	
Xylene (o)	ND	0.0250	и	"		11	11	11	
Surrogate: a,a,a-Trifluorotoluene		98.2 %	80-1	20	"	"	"		
Surrogate: 4-Bromofluorobenzene		95.5 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1.	EL62217	12/22/06	12/22/06	EPA 8015M	
Environmental Lab of Texas			The sec	uilta in this					

Invironmental Lab of Texa

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

Page 2 of 16

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzad	Mathod	Nat
JM3- EW2 (6L22004-03) Soil					Batti	riepaied			inotes
Carbon Ranges C12-C28	 ND	10.0	mg/kg drv	1	EL 62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C28-C35	ND	10.0	"		"	"	12/22/00	"	
Total Hydrocarbons	ND	10.0	"			"	"	11	
Surrogate: 1-Chlorooctane		104 %	70-1	30			"	"	
Surrogate: 1-Chlorooctadecane		122 %	70-1	30 30	"	n	"	"	
JM3- EW5 (6L22004-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250			и	0			
Ethylbenzene	ND	0.0250	**	"	"	"	н	**	
Xylene (p/m)	ND	0.0250	"	<b>n</b> 1		"	"		
Xylene (0)	ND	0.0250	"	"		"	'n	*	
Surrogate: a,a,a-Trifluorotoluene		98.0 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0				"		14	
Carbon Ranges C28-C35	ND	10.0	и	"	11	н	**	**	
Total Hydrocarbons	ND	10.0	" '	н	н		11		
Surrogate: 1-Chlorooctane		107 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		125 %	70-1	30	"	"	u	"	
JM3- SW2 (6L22004-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	D	"	**	"	0	"	
Ethylbenzene	ND	0.0250	**				u	11	
Xylene (p/m)	ND	0.0250	**	11	0	н	n		
Xylene (0)	ND	0.0250	**		"	п	"	u	
Surrogate: a,a,a-Trifluorotoluene		110 %	80-1	20	"	n	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	*	11	11		**	"	

Carbon Ranges C28-C35

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

Total Hydrocarbons

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

...

"

"

,,

70-130

70-130

"

"

10.0

10.0

84.8 %

101 %

ND

ND

11

"

Fax: (432) 687-4914

# Organics by GC

#### **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- SW5 (6L22004-06) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	11	ч	"		"	u	
Ethylbenzene	ND	0.0250	"	"	**	"	"	и	
Xylene (p/m)	ND	0.0250	"	"	· "		"	**	
Xylene (o)	ND	0.0250	11		н	**	"		
Surrogate: a,a,a-Trifluorotoluene		115 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-1	20	"	"	"	".	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	I	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"		"	u	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	u	**	"	
Total Hydrocarbons	ND	10.0			"	н	"	. "	
Surrogate: 1-Chlorooctane		88.8 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		98.8 %	70-1	30	"	И,	"	n	
JM3- WW2 (6L22004-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/29/06	EPA 8021B	
Toluene	ND	0.0250	"	11	"	"	11	"	
Ethylbenzene	J [0.0244]	0.0250	**	"	"		"	"	. J
Xylene (p/m)	ND	0.0250	'n	"	н	"	"	"	
Xylene (0)	J [0.0171]	0.0250			w	н	"	"	J
Surrogate: a,a,a-Trifluorotoluene		105 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"		"	"	H	"	
Carbon Ranges C28-C35	ND	10.0	н		"	"	н	"	
Total Hydrocarbons	ND	10.0	н		n	"		н	
Surrogate: 1-Chlorooctane		81.2 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.0 %	70-1	30		"		"	
JM3- WW5 (6L22004-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	0.0541	0.0250	**			"	•	"	
Ethylbenzene	J [0.0225]	0.0250	и	"		"		н	J
Xylene (p/m)	0.133	0.0250	"	"	"	"	п	n	
Xylene (0)	0.0682	0.0250	"	"	"	"	и	"	
Surrogate: a,a,a-Trifluorotoluene		122 %	80-1	20	"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		117 %	80-1	20	"	"	"	n	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Frankramantal Lab of Toyog			771			·			

Environmental Lab of Texas

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

Page 4 of 16

#### Organics by GC

# **Environmental Lab of Texas**

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- WW5 (6L22004-08) Soil									
Carbon Ranges C12-C28	152	. 10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C28-C35	56.2	10.0	"	"	"	"	'n	11	
Total Hydrocarbons	208	10.0	**	"	"	11	n	It	
Surrogate: 1-Chlorooctane		79.8 %	70-13	0	"	"	"	"	
Surrogate: 1-Chlorooctadecane		93.8 %	70-13	0	"	"	"	<b>"</b>	
JM3- F7 (6L22004-09) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	11		"	n	"	н	
Ethylbenzene	ND	0.0250	"	**		11		n	
Xylene (p/m)	ND	0.0250	"	"	19	н	"	"	
Xylene (o)	ND	0.0250			H	"	n	**	
Surrogate: a,a,a-Trifluorotoluene		119 %	80-12	0	"	"	"	n	
Surrogate: 4-Bromofluorobenzene		104 %	80-12	0	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	п	н	ч	U.	**	"	
Carbon Ranges C28-C35	ND	10.0	п	"	"	"	11	"	
Total Hydrocarbons	ND	10.0	11	"	. "	**		"	
Surrogate: 1-Chlorooctane		99.2 %	70-13	0	"	"	"	"	
Surrogate: 1-Chlorooctadecane		116%	70-13	0	"	"	"	μ	
JM3- F8 (6L22004-10) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	"	"	н	"	"	н	
Ethylbenzene	ND	0.0250	п		11	"	"	13	
Xylene (p/m)	ND	0.0250	n	**	11	"	"	15	
Xylene (o)	ND	0.0250	n	"	"	n	n	11	
Surrogate: a,a,a-Trifluorotoluene		113 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.2 %	80-12	0	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	u	*	"		"	
Carbon Ranges C28-C35	ND	10.0	"		"	*		"	
Total Hydrocarbons	ND	10.0	"	н	"	н	"	"	
Surrogate: 1-Chlorooctane		103 %	70-13	0	n	n	n	v	
Surrogate: 1-Chlorooctadecane		120 %	70-13	0	"	"	"	"	

Environmental Lab of Texas

Plains All American EH & S 1301 S. County Road 1150

Midland TX, 79706-4476

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds Fax: (432) 687-4914

# Organics by GC

#### Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- ZWW2 (6L22004-11) Soil								-	
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/29/06	EPA 8021B	
Toluene	ND	0.0250		11	н		14	**	
Ethylbenzene	ND	0.0250	"	11		"	"	н	
Xylene (p/m)	ND	0.0250	"	"	"	n	"	"	
Xylene (o)	ND	0.0250	"		"	n	"	0	
Surrogate: a,a,a-Trifluorotoluene		103 %	80-1	20	"	11	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	80-1	120	"	n	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	35.3	10.0	"	"	"	n	*	R	
Carbon Ranges C28-C35	ND	10.0	"	••	"	n	11	n	
Total Hydrocarbons	35.3	10.0	"	14	н	н	н	"	
Surrogate: 1-Chlorooctane		106 %	70-1	30	"	11	"	"	
Surrogate: 1-Chlorooctadecane		126 %	70-1	30	n	"	"	"	
JM3- F9 (6L22004-12) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	"	11		"	**	"	
Ethylbenzene	ND	0.0250	"	**	и		11	"	
Xylene (p/m)	ND	0.0250	н	н	"	u	"	u	
Xylene (o)	ND	0.0250	п	"	"	"	. "	"	
Surrogate: a,a,a-Trifluorotoluene		120 %	80-1	20	"	n	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1 ·	EL62217	12/22/06	12/22/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	п	н	"	u	**	
Carbon Ranges C28-C35	ND	10.0	"	11	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	11	n	"	u.	"	
Surrogate: 1-Chlorooctane		78.0 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		86.0 %	70-1	30	"	n	"	**	
JM3- F10 (6L22004-13) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/28/06	EPA 8021B	
Toluene	ND	0.0250	н	"	"	**	"	"	
Ethylbenzene	ND	0.0250	"	**	н	"	11	"	
Xylene (p/m)	ND	0.0250	"	*1	н	a	11	**	
Xylene (o)	ND	0.0250	н	"	"	"	11	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M	

Environmental Lab of Texas

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

Page 6 of 16

Plains All American EH & S	I & S Project. Jalmat #3							Fax: (432) 687-4914			
1301 S. County Road 1150		Project N	lumber: 20	00-10610							
Midland TX, 79706-4476		Project M	anager: Ca	mille Reyno	olds						
		O	rganics t	oy GC							
		Environ	mental L	ab of Te	exas						
		Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note		
JM3- F10 (6L22004-13) Soil						_	• •				
Carbon Ranges C12-C28	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M			
Carbon Ranges C28-C35	ND	10.0	н	**	н	н		**			
Total Hydrocarbons	ND	10.0	"	n		н	"	н			
Surrogate: 1-Chlorooctane		101 %	70-	130	"	"	"	"			
Surrogate: 1-Chlorooctadecane		119 %	70-	130	"	"	"	п			
JM3- NW2 (6L22004-14) Soil											
Benzene	ND	0.0250	mg/kg dry	25	EL62220	12/22/06	12/29/06	EPA 8021B			
Toluene	ND	0.0250			"						
Ethylbenzene	ND	0.0250	п		"	"	· 11				
Xylene (p/m)	ND	0.0250		11	н	и		"			
Xylene (o)	ND	0.0250	n	"			n	"			
Surrogate: a.a.a.Trifluorotoluene		95.0 %	80-	120	"	"	, , , , , , , , , , , , , , , , , , , ,	"			
Surrogate: 4-Bromofluorobenzene		87.8 %	80-	120	"	"	"	"			
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M			
Carbon Ranges C12-C28	ND	10.0	**	"	n	"	"	"			
Carbon Ranges C28-C35	ND	10.0	u.	н	**		U	н			
Total Hydrocarbons	ND	10.0	."	11	11	"	"	"			
Surrogate: 1-Chlorooctane		91.6%	70-	130	"	"	"	"			
Surrogate: 1-Chlorooctadecane		107 %	70-	130	"	"	"	n			
JM3- 3WW2 (6L22004-15) Soil											
Benzene	ND	0.0250	mg/kg dry	25	EL62807	12/27/06	12/28/06	EPA 8021B			
Toluene	ND	0.0250	"	"	"	"	"	· •			
Ethylbenzene	ND	0.0250	п		••	"	"	"			
Xylene (p/m)	ND	0.0250	"	. •	н	**	"	H			
Xylene (o)	ND	0.0250	"	"	*	н		"			
Surrogate: a,a,a-Trifluorotoluene		96.0 %	80-	120		"	"	"			
Surrogate: 4-Bromofluorobenzene		80.5 %	80-	120	"	"	"	"			
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/22/06	EPA 8015M			
Carbon Ranges C12-C28	ND	10.0	**	11	"		"	18			
Carbon Ranges C28-C35	ND	10.0	n	••	**			u.			
Total Hydrocarbons	ND	10.0	91	"		"	"	"			
Surrogate: 1-Chlorooctane		106 %	70-	130	"	"	"	"			
Surrogate: I-Chlorooctadecane		124 %	70-	130	"	"	"	"			

Plains All American EH & S 1301 S. County Road 1150

Midland TX, 79706-4476

#### Project: Jalmat #3 Project Number: 2000-10610 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
JM3- 2EW2 (6L22004-16) Soil									
Benzene	J [0.00948]	0.0250	mg/kg dry	25	EL62807	12/27/06	12/27/06	EPA 8021B	1
Toluene	0.449	0.0250		"	"			"	
Ethylbenzene	0.259	0.0250	**	"		"	н	"	
Xylene (p/m)	1.13	0.0250	"	"	"	"	. и	"	
Xylene (0)	0.392	0.0250	**	"		"	11		
Surrogate: a,a,a-Trifluorotoluene		178 %	80-1	20	"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		120 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EL62217	12/22/06	12/23/06	EPA 8015M	
Carbon Ranges C12-C28	68.9	10.0	"	"	"	11	"	"	
Carbon Ranges C28-C35	38.8	10.0	"	"		"	"	u	
Total Hydrocarbons	108	10.0	"	п	n			*	
Surrogate: 1-Chlorooctane		83.8 %	70-1	30	11	"	"	"	
Surrogate: 1-Chlorooctadecane		99.2 %	70-1	30	"	"	"	"	

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyta	Pecult	Reporting		D'1	D . 1				
IM2 E5 (61 22004 01) Sol	Kesun	Luill	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JNIJ- F3 (0L/22004-01) 5011									
% Moisture	10.6	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- F6 (6L22004-02) Soil									
% Moisture	15.4	. 0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- EW2 (6L22004-03) Soil									
% Moisture	21.7	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- EW5 (6L22004-04) Soil									
% Moisture	20.1	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- SW2 (6L22004-05) Soit									
% Moisture	15.5	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- SW5 (6L22004-06) Soil									
% Moisture	21.9	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- WW2 (6L22004-07) Soil									
% Moisture	17.4	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- WW5 (61.22004-08) Soil									
% Moisture	13.0	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- F7 (6L22004-09) Soil									
% Moisture	12.9	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- F8 (6L22004-10) Soil									
% Moisture	21.9	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- ZWW2 (6L22004-11) Soil								<u></u>	
% Moisture	10.4	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- F9 (6L22004-12) Soil									
% Moisture	13.6	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- F10 (6L22004-13) Soil									
% Moisture	8.6	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- NW2 (6L22004-14) Soil									
% Moisture	6.0	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- 3WW2 (6L22004-15) Soil									
% Moisture	13.1	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	
JM3- 2EW2 (6L22004-16) Soil									
% Moisture	4.6	0.1	%	1	EL62219	12/22/06	12/22/06	% calculation	

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL62217 - Solvent Extraction (GC)										
Blank (EL62217-BLK1)				Prepared &	k Analyzed	: 12/22/06				
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	36.1		mg/kg	50.0	, ,,	72.2	70-130			
Surrogate: 1-Chlorooctadecane	39.3		"	50.0		78.6	70-130			
LCS (EL62217-BS1)				Prepared 8	k Analyzed	: 12/22/06				
Carbon Ranges C6-C12	604	10.0	mg/kg wet	500		121	75-125			• •
Carbon Ranges C12-C28	523	10.0	"	500		105	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1130	10.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	59.3		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	51.4		"	50.0		103	70-130			
Calibration Check (EL62217-CCV1)				Prepared:	12/22/06 A	nalyzed: 12	2/23/06			
Carbon Ranges C6-C12	205		mg/kg	250		82.0	80-120			
Carbon Ranges C12-C28	241			250		96.4	80-120			
Total Hydrocarbons	446		"	500		. 89.2	80-120			
Surrogate: 1-Chlorooctane	51.4		н	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	56.9		п	. 50.0		114	70-130			
Matrix Spike (EL62217-MS1)	So	urce: 6L22004	1-01	Prepared:	12/22/06 A	nalyzed: 12	2/23/06			
Carbon Ranges C6-C12	595	10.0	mg/kg dry	559	ND	106	75-125			
Carbon Ranges C12-C28	483	10.0		559	27.6	81.5	75-125			
Carbon Ranges C28-C35	ND	10.0	н	0.00	ND		75-125			
Total Hydrocarbons	1080	10.0	н	1120	27.6	94.0	75-125			
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	70-130			
Surrogate: 1-Chlorooctadecane	48.9		"	50.0		97.8	70-130			

Environmental Lab of Texas

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

Page 11 of 16

# **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 EL62217 - Solvent Extraction (GC)										

Matrix Spike Dup (EL62217-MSD1)	Source: 6L22004-01			Prepared: 1	2/22/06 A				
Carbon Ranges C6-C12	595	10.0	mg/kg dry	559	ND	106	75-125	0.00	20
Carbon Ranges C12-C28	502	10.0		559	27.6	84.9	75-125	4.09	20
Carbon Ranges C28-C35	ND	10.0	н	0.00	ND		75-125		20
Total Hydrocarbons	1100	10.0	н	1120	27.6	95.8	75-125	1.90	20
Surrogate: 1-Chlorooctane	57.4		mg/kg	50.0		115	70-130		
Surrogate: 1-Chlorooctadecane	52.1		. "	50.0		104	70-130		

#### Batch EL62220 - EPA 5030C (GC)

Blank (EL62220-BLK1)				Prepared: 12/22/	06 Analyzed: 12	2/28/06	
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	44.2		ug/kg	40.0	110	80-120	 
Surrogate: 4-Bromofluorobenzene	43.6		"	40.0	109	80-120	
LCS (EL62220-BS1)				Prepared: 12/22/	06 Analyzed: 12	2/28/06	
Benzene	1.13	0.0250	mg/kg wet	1.25	90.4	80-120	
Toluene	1.28	0.0250	н	1.25	102	80-120	
Ethylbenzene	1.33	0.0250	11	1.25	106	80-120	
Xylene (p/m)	2.73	0.0250	11	2.50	109	80-120	
Xylene (0)	1.27	0.0250	11	1.25	102	80-120	
Surrogate: a,a,a-Trifluorotoluene	41.0		ug/kg	40.0	102	80-120	 
Surrogate: 4-Bromofluorobenzene	45.9		"	40.0	115	80-120	

Environmental Lab of Texas

# **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 EL62220 - EPA 5030C (GC)								<u>.</u>		
Calibration Check (EL62220-CCV1)		·····		Prepared:	12/22/06 A	nalyzed: 1	12/29/06			
Benzene	58.8		ug/kg	50.0		118	80-120			
Toluene	55.7		"	50.0		111	80-120			
Ethylbenzene	58.1			50.0		116	80-120			
Xylene (p/m)	101			100		101	80-120			
Xylene (o)	46.3			50.0		92.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	48.0		"	40.0		120	80-120			
Surrogate: 4-Bromofluorobenzene	44.9		"	40.0		112	80-120			
Matrix Spike (EL62220-MS1)	Sou	rce: 6L22004	-04	Prepared:	12/22/06 A	nalyzed: 1	12/28/06			
Benzene	1.47	0.0250	mg/kg dry	1.56	ND	94.2	80-120			
Toluene	1.45	0.0250	59	1.56	ND	92.9	80-120			
Ethylbenzene	1.29	0.0250	"	1.56	ND	82.7	80-120			
Xylene (p/m)	2.75	0.0250	"	3.13	ND	87.9	80-120			
Xylene (0)	1.35	0.0250	"	1.56	ND	86.5	80-120	•		
Surrogate: a,a,a-Trifluorotoluene	37.7		ug/kg	40.0		94.2	80-120			
Surrogate: 4-Bromofluorobenzene	42.2		"	40.0		106	80- <i>120</i>	·		
Matrix Spike Dup (EL62220-MSD1)	Sou	rce: 6L22004	-04	Prepared:	12/22/06 A	nalyzed: 1	12/28/06			
Benzene	1.77	0.0250	mg/kg dry	1.56	ND	113	80-120	18,1	20	
Toluene	1.77	0.0250	"	1.56	ND	113	80-120	19.5	20	
Ethylbenzene	1.75	0.0250	"	1.56	ND	112	80-120	30.1	20	I
Xylene (p/m)	3.48	0.0250	"	3.13	ND	111	80-120	23.2	20	1
Xylene (0)	1.63	0.0250	**	1.56	. ND	104	80-120	18.4	20	
Surrogate: a,a,a-Trifluorotoluene	-46.0		ug/kg	40.0		115	80-120			
Surrogate: 4-Bromofluorobenzene	42.8		"	40.0		107	80-120			
Batch EL62807 - EPA 5030C (GC)										
Blank (EL62807-BLK1)				Prepared:	12/28/06 A	nalyzed:	12/29/06			<u> </u>
Benzene	ND	0.0250	mg/kg wet							4
Toluene	ND	0.0250	u							
Ethylbenzene	ND	0.0250	н							
Xylene (p/m)	ND	0.0250	"							
Xylene (0)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	39.4		ug/kg	40.0		98.5	80-120			
Surrogate: 4-Bromofluorobenzene	40.9		п	40.0		102	80-120			

Environmental Lab of Texas

# **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

Analyte	Result	Reporting	Units	Spike	Source	%REC	%REC	RPD	RPD Limit	Notes
Anayte	Acsun			Level	Result		Luins		Lunit	TNOLĘS
Batch EL62807 - EPA 5030C (GC)										
LCS (EL62807-BS1)				Prepared: 1	2/28/06 Ar	nalyzed: 12	2/29/06			
Benzene	1.23	0.0250	mg/kg wet	1.25		98.4	80-120			
Toluene	1.25	0.0250	"	1.25		100	80-120			
Ethylbenzene	1,34	0.0250	"	1.25		107	80-120			
Xylene (p/m)	2.65	0.0250	"	2.50		106	80-120			
Xylene (o)	1.19	0.0250	"	1.25		95.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.8		ug/kg	40.0		94.5	80-120			
Surrogate: 4-Bromofluorobenzene	43.2		"	40.0		108	80-120			
Calibration Check (EL62807-CCV1)				Prepared: 1	2/28/06 Ar	nalyzed: 12	2/29/06			
Benzene	53.7		ug/kg	50.0		107	80-120			
Toluene	51.7		н	50.0		103	80-120			
Ethylbenzene	52.1			50.0		104	80-120			
Xylene (p/m)	90.7		"	100		90.7	80-120			
Xylene (0)	43.5		"	50.0		87.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.7		"	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	38.0		. "	40.0		95.0	80-120			
Matrix Spike (EL62807-MS1)	Sou	rce: 6L22004	-15	Prepared:	2/28/06 Ar	nalyzed: 12	2/29/06			
Benzene	1.60	0.0250	mg/kg dry	1.44	ND	111	80-120			
Toluene	1.63	0.0250	"	1.44	ND	113	80-120			
Ethylbenzene	1.63	0.0250	ч	1.44	ND	113	80-120			
Xylene (p/m)	3.15	0.0250	11	2.88	ND	109	80-120			
Xylene (0)	1.46	0.0250	11	1.44	ND	101	80-120			
Surrogate: a,a,a-Trifluorotoluene	47.4		ug/kg	40.0		118	80-120			
Surrogate: 4-Bromofluorobenzene	46.0		"	40.0		115	80-120			
Matrix Spike Dup (EL62807-MSD1)	Sou	rce: 6L22004	-15	Prepared:	12/28/06 At	nalyzed: 12	2/29/06			
Benzene	1.58	0.0250	mg/kg dry	1.44	ND	110	80-120	0.905	20	
Toluene	1.59	0.0250		1.44	ND	110	80-120	2.69	20	
Ethylbenzene	1.52	0.0250	"	1.44	ND	106	80-120	6.39	20	
Xylene (p/m)	3.08	0.0250	ii.	2.88	ND	107	80-120	1.85	20	
Xylene (o)	1.46	0.0250	"	1.44	ND	101	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	44.3		ug/kg	40.0		111	80-120			
Surrogate: 4-Bromofluorobenzene	44.2		".	40.0		110	80-120			

Environmental Lab of Texas

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

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

Plains All American EH & S	Project: Jalm	at #3	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000	-10610	
Midland TX, 79706-4476	Project Manager: Cam	ille Reynolds	
			· · · · · · · · · · · · · · · · · · ·

# General Chemistry Parameters by EPA / Standard Methods - Quality Control

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL62219 - General Preparation (Prep)										
Blank (EL62219-BLK1)				Prepared &	Analyzed:	12/22/06				
% Solids	99.8		%							
Duplicate (EL62219-DUP1)	Sou	rce: 6L22003-	01	Prepared &	Analyzed:	12/22/06				
% Solids	87.2		%		88.1			1.03	20	

Environmental Lab of Texas

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds Fax: (432) 687-4914

#### Notes and Definitions

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

1/3/2007

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

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

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

Environmental Lab of Texas

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

Page 16 of 16

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

														-									-*	4		
IJ	nvironmental Lat	of Te	Sex							Œ	AIN C	P CI	DISTOD	' REC	ORL	AN	O AN	ALY	SIS	REQ	UES	F-	1			
								126( Ode	D We ssa, j	sst I-2 Texas	0 Eas 5 7976	<u>ور</u> ب						Phor Fax		32-56 32-56	3-18(	8 5				
	Project Manager:		$\gtrsim$	ץ א ופ	، ارما م									Proje	ct Nai	ne: T	$\langle 1 \rangle$	5	5	te	3					
	Company Name	air P	Ne V	2	C-									ы.	rojec	Ë.	2	0	0	N	0	61	2			
	Company Address:												1	Pro	ject L	ö										
	City/State/Zip:			ļ	×	-									Å	# 										
	Telephone No:					Fax No:			1				ية ال	port F	orma		ين يغر	ndar	-		TRRI	۵.		NPDE	w	
×11-11-1	Sampler Signature:	~ ~	C			e-mail:	J	140	Cite	5	dee		ر. د ا	L				A	ahtre	i. U				-	-	
(lab	use only)	{	Ν·								۶.	<	یم در بر بر بر بر				TCLP					·		end St		
OR	DER #: 0/2/2004							Ē	eviașa.	tion & #	t of Cor	tainers	EW A	ž				99	-	09				48,	[	
	(διιιο 2		yta	 u	þəj	pəj	ainers						ter S=SoillSold )) ))	Specify Other	9001 XL 50	(א 'en 'by	EC	Ba Ca Cr Ph Hg		DOD or BTEX 826				Pre-Schedule) 24,	۲۴	
			ດ	IqeG gnibn3	.qms2 ətsQ	gm£2 smīī	Field Filtered	  C6	HCI × HNO <sup>2</sup>	*OS≿H	°O°S⁴≊N HO¢N	900N	Toeciť 5W gninin⊡=W0 5W = Gronndwal	NP=Non-Potable	TPH: TX 100	V, ,6D) anoiteD	SAR / ESP / C	pA sÁ :sistotA	Volatites	81EX 802 18/	เวช	'M'8'0'N		TAT HRUR	T bisbrist	
F	713-155			<u> ~</u>	2/21/06	1115		7						~						$\star$				-	×	
12	1 IM3-F6				20/12/2	1130	-	2					Vj		V					X					4	
Ŕ	7 JM3-ENVE			~	2/21/06	() it o		7					N		<u> </u>					<u>×</u>		-			×	
4	L THIZ-EWS				2/21/06	1150	_	2					<i>N</i> V 		~		-		_	<u>×</u>				-+	×	
R	3 JM3-SW2				2/2/29	1100		-21							×					*		·  -			×	
Z	D JWB - SWE			<u>,</u>	3/11/06	1205	-	7	$\rightarrow$				N		<u>x</u> .		-		_	*		-		_	$\times$	
<u>e</u>	1 .J. w. 2 - WW2				2/21/06	12/0		7 7	_												-	+			x `	
₹₹	TWIT ET				2/21/06	1220	-	12		<u> </u> .			*  V	$\frac{1}{1}$								+		+	. <	
75	1 2M3 - F8				2/21/06	3721	+	5	-								þ			×					×	
Spe	cial Instructions:		4						1							Labo Sam VOC	rator 0e.Cc 5 Free	v Cor	ers. In eads	its: itacl? pace?		×.	BUS	ZZ		
Relir	Iquished by:	Date / /	Time	ž (	sceived by:								Date	<del>ب</del>	e	Custo	ts on	conta tals o	iner(s n con	) Jainer Jer(s)	<b>(s</b> )		× 1 ×	z t)r		
Υ. 	nguished by:	Dafe	E E		sceived by:							ļ	Date	Ĩ	еш	Sam			eliver Lient I	PS - S	DHI	. E	<i>6</i> 0ů		tar	
Relin	quished by:	Date	Time	<u>æ</u>	sceived by ELOT ( ∩, , , .	LINN -	2					2	Date	N S S	an (S	Tem	oeratu	ų Š	on R	eceipi		h.	Q	ç		
STODY RECORD AND ANALYSIS REQUEST Phone: 432-563-1800 Fax: 432-563-1713 Protert Name: Drivert Name:	Project #: 2000 - 10610	Project Loc:	PO#:	Report Format: Standard TRRP ONPDES	avve. Analyza Enr			Омен ( speciry)       DW=Onnking Water SL=Studge       GW=Onnking Water SL=Studge       GW = Croundwater SL=Studge       GW = Croundwater SL=Studge       GW = Croundwater SL=Studge       TPH: 418.1 (607500 Statements)       BTEX-State       Statements (Ca, Mg, Na; K)       Metalst       TPH: 418.1 (607500 Statements)       Statements (Ca, Mg, Na; K)       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Statements (Ca, Mg, Na; K)       Metalst       Metalst       Statements (Ca, Mg, Na; K)       M.C. S.M.       M.C. S.M.       M.C. S.M.	<pre>x x x x x x x x x x x x x x x x x x x</pre>	× ×	× *	× ×	X	X		Laboratory Comments: Sample Containars Injact?	Date     Time     Labels on container(s)     Container(s)     Container(s)     Y     Ø       Custody seals on container(s)     Y     Ø     Ø     Ø     Ø	Date Time Sample Hand Delivered C N by SamperClient Rep. 7 C N by Connect UPS DHL FedEx Lone Ste	Date Time Time Temperature Upon Receipt: $-30$ °C							
---	---	------------------	-----------------	-------------------------------------	----------------------------	--------------	--------------------------------	---	--	-------------------	--------------------	--------------------	-----------------	------------------	--	---	--	--	---							
CHAIN OF CU. 12600 West I-20 East Odessa, Texas 79765	C 1			Fax No:	e-mail: /2000 0 Edge-v. C.	₹- \ \	Preservation & # of Containers	Date Sampled Nace Field Filtered HCI Field Filtered Ice Field Filtered Field Filtered Filtered Filtered Filtered Field Filtere	12/21/06 1245 3	12/-1/06 1250 1 0	12/2/1/00 1315 1 J	12/10/00 1720 11 V	12/2/61 1330 11	12/2/00 1325 111			Received by:	Received by:	Received by ELOT- VO V V							
Nironmental Lab of lexas	Company Name 7) and 7 and 2 and 1 and 2	Company Address:	City/State/Zip:	Telephone No:	Sampler Signature:	use only)	DER# ULMOOT	روانات Source (الا	J.X.3. V WWY	Jair Fg	3 Juz- F10	( Jm3 - NW 2	5 JM3-2WW2	0 Juz- 26W2		cial instructions:	nquished by: Date Time F	rquished by: Date Time F	nquished by: Date Time F							

## Environmental Lab of Texas

Client	Plans
Date/ Time:	12/22/06 8:30
Lab ID # -	412004
Initials	1 le

# Variance/ Corrective Action Report- Sample Log-In

#### Sample Receipt Checklist

				Clier	nt Initials
#1	Temperature of container/ cooter?	Yes	No	-3.0 °C	
#2	Shipping container in good condition?	ales 1	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?	Xes	No		
#6	Sample instructions complete of Chain of Custody?	YES	No		
#7	Chain of Custody signed when relinquished/ received?	196	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	D written on Cont./ Lid	
#9	Container label(s) legible and intact?	Tes	· No	Not Applicable	
,¥10	Sample matrix/ properties agree with Chain of Custody?	(es	No		
#11	Containers supplied by ELOT?	tes	No		
<sup>-</sup> ¥12	Samples in proper container/ bottle?	Yes	No	See Below	
113	Samples properly preserved?	103	No	See Below	
#14	Sample bottles intact?	. Kes	No		
#15	Preservations documented on Chain of Custody?	705	No		
116	Containers documented on Chain of Custody?	Yes	No		**************************************
1+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:	****
egarding:			- مورود من من مراور مارون مارون و معرف و معرف المورود المورود المورود المورود المورود المورود المورود المورود ا		
					<u></u>
orrective A	ction Taken:				
				₩ <b>₽</b> ₩;₩₩,₩₩,₩₩,₩₩,₩,₩,₩,₩,₩,₩,₩,₩,₩,₩,₩,₩,₩	
				· · · · · · · · · · · · · · · · · · ·	

Check all that Apply:

 $\square$ 

 $\overline{\Box}$ 

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event



# Analytical Report

### Prepared for:

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Lea County, NM

Lab Order Number: 7A05011

Report Date: 01/10/07

Plains All American EH & SProject:Jalmat #31301 S. County Road 1150Project Number:2000-10610Midland TX, 79706-4476Project Manager:Camille Reynolds

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EXCV FLR	7A05011-01	Soil	01/04/07 12:30	01-05-2007 16:30
N S/W	7A05011-02	Soil	01/04/07 12:45	01-05-2007 16:30
E S/W	7A05011-03	Soil	01/04/07 13:00	01-05-2007 16:30
W S/W	7A05011-04	Soil	01/04/07 13:15	01-05-2007 16:30
S S/W	7A05011-05	Soil	01/04/07 13:30	01-05-2007 16:30

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

Fax: (432) 687-4914

#### Organics by GC

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EXCV FLR (7A05011-01) Soil									
Carbon Ranges C6-C12	63.2	50.0	mg/kg dry	5	EA70805	01/08/07	01/08/07	EPA 8015M	
Carbon Ranges C12-C28	4610	50.0	"	"	**	"	"		
Carbon Ranges C28-C35	642	50.0	"	"	"	"	"		
Total Hydrocarbons	5320	50.0	"	"	"	n	**		
Surrogate: 1-Chlorooctane		19.0 %	70-13	10	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		29.8 %	70-13	80	"	· n	"	"	S-06
N S/W (7A05011-02) Soil						•			
Benzene	ND	0.0250	mg/kg dry	25	EA70806	01/08/07	01/08/07	EPA 8021B	
Toluene	ND	0.0250		"	"	н	"	••	
Ethylbenzene	ND	0.0250		"	"		"	**	
Xylene (p/m)	ND	0.0250	"	"	•	н	"	•	
Xylene (o)	ND	0.0250	"			"	"	•	
Surrogate: a,a,a-Trifluorotoluene		118 %	80-12	0	."	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	80-12	0	. "	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA70805	01/08/07	01/08/07	EPA 8015M	
Carbon Ranges C12-C28	68.0	10.0	**			11	11	n	
Carbon Ranges C28-C35	13.2	10.0	"		u	"	11	11	
Total Hydrocarbons	81.2	10.0	"	"	и	. "	"		
Surrogate: 1-Chlorooctane		127 %	70-13	0	n	"	"	"	
Surrogate: 1-Chlorooctadecane		146 %	70-13	0	"	"	"	**	S-04
E S/W (7A05011-03) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA70806	01/08/07	01/08/07	EPA 8021B	
Toluene	ND	0.0250	"	н	**	"	n	"	
Ethylbenzene	ND	0.0250	**	н	**		п	U.	
Xylene (p/m)	ND	0.0250	и.	"	"	п	**	11	
Xylene (o)	ND	0.0250		"	51	H	11	11	
Surrogate: a,a,a-Trifluorotoluene		118 %	80-12	0	"	"	"	<b>11</b> -	
Surrogate: 4-Bromofluorobenzene		113 %	80-12	0	"	n	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA70805	01/08/07	01/08/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0			"		<b>**</b> ·	"	
Carbon Ranges C28-C35	ND	10.0	**	н	"	11	n	"	
Total Hydrocarbons	ND	10.0	**	u	"	11	"		
Surrogate: 1-Chlorooctane		107 %	70-13	0	"	"	"	"	
Surrogate: 1-Chlorooctadecane		123 %	70-13	0	"	"	"	11	

Environmental Lab of Texas

Project: Jalmat #3 Project Number: 2000-10610 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
W S/W (7A05011-04) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA70806	01/08/07	01/08/07	EPA 8021B	
Toluene	ND	0.0250	35	**	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"		U		11	
Xylene (p/m)	ND	0.0250	**	н			"	"	
Xylene (o)	ND	0.0250	н	"	"	н	"	**	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-1	20	"	"	"	<i>. .</i> .	
Surrogate: 4-Bromofluorobenzene		104 %	80-1	20	"	"	n	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA70805	01/08/07	01/08/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	**	•	"	"		**	
Carbon Ranges C28-C35	ND	10.0	**			"	••	"	
Total Hydrocarbons	ND	10.0	"	**			"	"	
Surrogate: 1-Chlorooctane		104 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		119 %	70-1	30	"	"	"	"	
S S/W (7A05011-05) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA70806	01/08/07	01/08/07	EPA 8021B	
Toluene	ND	0.0250	"	"	"	п	"	*1	
Ethylbenzene	ND	0.0250	н	**	"	н	**	51	
Xylene (p/m)	ND	0.0250	**	••	•	11	"	*1	
Xylene (o)	ND	0.0250	"	**	"	"	"		
Surrogate: a,a,a-Trifluorotoluene		115 %	80-1	20	"	н	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA70805	01/08/07	01/09/07	EPA 8015M	
Carbon Ranges C12-C28	69.9	10.0	u		н	n		**	
Carbon Ranges C28-C35	J [2.64]	10.0	u		и		11		
Total Hydrocarbons	69.9	10.0	n	п	"	н	н		
Surrogate: 1-Chlorooctane		87.6 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane	·	96.8 %	70-1	30	"	"	"	"	

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EXCV FLR (7A05011-01) Soil									
% Moisture	2.5	0.1	%	1	EA70903	01/08/07	01/09/07	% calculation	
N S/W (7A05011-02) Soil	<u></u>								
% Moisture	3.6	0.1	%	1	EA70903	01/08/07	01/09/07	% calculation	
E S/W (7A05011-03) Soil									
% Moisture	2.1	0.1	%	I	EA70903	01/08/07	01/09/07	% calculation	
W S/W (7A05011-04) Soil									
% Moisture	2.0	0.1	%	1	EA70903	01/08/07	01/09/07	% calculation	
S S/W (7A05011-05) Soil									
% Moisture	2.1	0.1	%	1	EA70903	01/08/07	01/09/07	% calculation	

Environmental Lab of Texas

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

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

Plains All American EH & S Project: Jalmat #3   1301 S. County Road 1150 Project Number: 2000-10610   Midland TX, 79706-4476 Project Manager: Camille Reynolds										
L	0	rganics by Environm	GC - Q iental L	uality Co ab of Tex	ontrol kas				. <u> </u>	· . <u></u>
	Posult	Reporting	Linite	Spike	Source	%PEC	%REC		RPD ·	Notes

Blank (EA70805-BLK1)		Prepared & Analyzed: 01/08/07									
Carbon Ranges C6-C12	ND	10.0	mg/kg wet					<u>, , , , , , , , , , , , , , , , , </u>			
Carbon Ranges C12-C28	ND	. 10.0	"	•							
Carbon Ranges C28-C35	ND	10.0	н								
Total Hydrocarbons	' ND	10.0	"								
Surrogate: 1-Chlorooctane	38.5		mg/kg	50.0		77.0	70-130		· ··· ··· ···		
Surrogate: 1-Chlorooctadecane	41.0		**	50.0		82.0	70-130				
LCS (EA70805-BS1)				Prepared &	Analyzed:	01/08/07					
Carbon Ranges C6-C12	556	10.0	mg/kg wet	· · · · · · · · · · · · · · · · · · ·			75-125				
Carbon Ranges C12-C28	454	10.0	н				75-125				
Carbon Ranges C28-C35	ND	10.0	"				75-125				
Total Hydrocarbons	1010	10.0	11				75-125				
Surrogate: 1-Chlorooctane	53.3		mg/kg	50.0		107	70-130				
Surrogate: 1-Chlorooctadecane	42.5		"	50.0		85.0	70-130				
Calibration Check (EA70805-CCV1)				Prepared &	Analyzed	01/08/07					
Carbon Ranges C6-C12	255		mg/kg	250		102	80-120				
Carbon Ranges C12-C28	295		"	250		118	80-120				
Total Hydrocarbons	549		"	500		110	80-120				
Surrogate: 1-Chlorooctane	59.0		"	50.0		118	70-130				
Surrogate: 1-Chlorooctadecane	54.3		"	50.0		109	70-130				
Matrix Spike (EA70805-MS1)	Sourc	e: 7A05011	1-05	Prepared &	Analyzed:	01/08/07					
Carbon Ranges C6-C12	629	10.0	mg/kg dry	511	ND	123	75-125		· · · · ·		
Carbon Ranges C12-C28	598	10.0	"	511	69.9	103	75-125				
Carbon Ranges C28-C35	5.08	10.0	11	0.00	2.64		75-125				
Total Hydrocarbons	1230	10.0	"	1020	69.9	114	75-125				
Surrogate: 1-Chlorooctane	65.0	<del></del>	mg/kg	50.0		130	70-130				
Surrogate: 1-Chlorooctadecane	57.4		"	50.0		115	70-130				

Environmental Lab of Texas

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

Page 5 of 9

#### **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 EA70805 - Solvent Extraction (GC)						· · ·				
Matrix Spike Dup (EA70805-MSD1)	Sou	Prepared: (	01/08/07 A	nalyzed: 01	/09/07					
Carbon Ranges C6-C12	623	10.0	mg/kg dry	511	ND	122	75-125	0.816	20	
Carbon Ranges C12-C28	596	10.0	"	511	69.9	103	75-125	0.00	20	
Carbon Ranges C28-C35	3.35	10.0	"	0.00	2.64		75-125		20	Ĺ
Total Hydrocarbons	1220	10,0	"	1020	69.9	113	75-125	0.881	20	
Surrogate: 1-Chlorooctane	63.7		mg/kg	50.0		127	70-130			

50.0

111

70-130

55.3

#### Batch EA70806 - EPA 5030C (GC)

Surrogate: 1-Chlorooctadecane

Blank (EA70806-BLK1)				Prepared & Ana	lyzed: 01/08/07		
Benzene	ND	0.0250	mg/kg wet				 
Toluene	ND	0.0250	"				
Ethylbenzene	ND	0.0250	"				
Xylene (p/m)	ND	0.0250					
Xylene (0)	ND	0.0250	"				
Surrogate: a,a,a-Trifluorotoluene	43.8		ug/kg	40.0	110	80-120	
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0	92.2	80-120	
LCS (EA70806-BS1)				Prepared & Ana	lyzed: 01/08/07		
Benzene	1.47	0.0250	mg/kg wet	1.25	118	80-120	 
Toluene	1.43	0.0250	"	1.25	114	80-120	
Ethylbenzene	1.34	0.0250	"	1.25	107	80-120	
Xylene (p/m)	2.65	0.0250	н	2.50	106	80-120	
Xylene (o)	1.26	0.0250	**	1.25	101	80-120	
Surrogate: a,a,a-Trifluorotoluene	45.6		ug/kg	40.0	114	80-120	 · · · · · · ·
Surrogate: 4-Bromofluorobenzene	36.6		"	40.0	91.5	80-120	

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

		Reporting	-	Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA70806 - EPA 5030C (GC)										
Calibration Check (EA70806-CCV1)				Prepared: (	01/08/07 A	nalyzed: 01	/09/07		,	
Benzene	59.2		ug/kg	50.0		118	80-120			
Toluene	59.4		"	50.0		119	80-120			
Ethylbenzene	56.4			50.0		113	80-120			
Xylene (p/m)	109		n	100		109	80-120			
Xylene (0)	56.6		п	50.0		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	46.7		"	40.0		117	80-120			
Surrogate: 4-Bromofluorobenzene	45.2		"	40.0		113	80-120			
Matrix Spike (EA70806-MS1)	Sour	ce: 7A05010	-01	Prepared: (	01/08/07 A	nalyzed: 01	/09/07			
Benzene	1.38	0.0250	mg/kg dry	1.36	ND	101	80-120			······································
Toluene	1.49	0.0250		1.36	ND	110	80-120			
Ethylbenzene	1.63	0.0250	"	1.36	ND	120	80-120			
Xylene (p/m)	3.00	0.0250	11	2.73	ND	110	80-120			
Xylene (0)	1.45	0.0250	"	1.36	ND	107	80~120			
Surrogate: a,a,a-Trifluorotoluene	40.7		ug/kg	40.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	39.2		"	40.0		98.0	80-120			
Matrix Spike Dup (EA70806-MSD1)	Sour	ce: 7A05010	-01	Prepared: (	01/08/07 A	nalyzed: 01	/09/07			
Benzene	1.40	0.0250	mg/kg dry	1.36	ND	103	80-120	1.96	20	
Toluene	1.49	0.0250	14	1.36	ND	110	80-120	0.00	20	
Ethylbenzene	1.58	0.0250		1.36	ND	116	80-120	3.39	20	
Xylene (p/m)	2.97	0.0250		2.73	ND	109	80-120	0.913	20	
Xylene (0)	1.49	0.0250	"	1.36	ND	110	80-120	2.76	20	
Surrogate: a,a,a-Trifluorotoluene	41.5		ug/kg	40.0	-	104	80-120			
Surrogate: 4-Bromofluorobenzene	45.6		"	40.0		114	80-120			

Environmental Lab of Texas

#### 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 EA70903 - General Preparation (Prep)		<u> </u>		•						
Blank (EA70903-BLK1)				Prepared: 0	1/08/07	Analyzed: 01	/09/07			
% Solids	100		%							
Duplicate (EA70903-DUP1)	Sour	e: 7A05010-	01	Prepared: (	1/08/07	Analyzed: 01	/09/07			
% Solids	91.9		%		91.7			0.218	20	
Duplicate (EA70903-DUP2)	Sourc	e: 7A08004-	06	Prepared: 0	1/08/07	Analyzed: 01	/09/07			
% Solids	88.3		%		94.6			6.89	20	

Environmental Lab of Texas

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

Fax: (432) 687-4914

#### **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.

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

1/10/2007

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.

Date:

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

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

Environmental Lab of Texas

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

Page 9 of 9

	ronnen	al Lab O	Ő	3							R	AIN	OFC	UST.	A Y GO	ပ္ပ	RD	ND.	ANAI	, YSI	Ц Ц Ц Ц Ц Ц	QUE	51				
									1260 Odes	IO We ssa, i	est I-2 Texas	20 Ea s 797.	st 65						ጚኯ	one: ax:	432-5	63-18 63-17	13.00				
	Project Manager:	Kenneth Cody				AGE 01 OF	6								Å	oject	Name	AL.	LMA.	1 # 3							
	Company Name	Basin Environmen	Ital Servic	e Tech	Jolour	jies, LLC						ĺ		[		Pro	ject ‡	50	0-10	610		ĺ					
	Company Address.	P. O. Box 301										[			-	roje	ct Loc	ee Fee	Cour	ity, N	5						
	City/State/Zip:	Lovington, NM 882	260				440-440 440-440										PO	A]	ن •	J. Re	plony						
	Telephone No:	(505) 441-3307					Fax No:	(20	5) 39(	<b>5-142</b>	6	[			Repor	t Fon	matc	×	Slanc	lard	<b>4</b>	] TR	<b>D</b>		D d N	ЕS	
	Sampler Signature	1 Jach Dal	Å				e-mail:	3	alter	0si	basi	iner	≷.00	εI	[	L				Analy	e Fo	,	ļ		r	ſ	
(lab use	only)		<b>-</b>															P	IAL							814 2 <i>1</i>	
ORDEF	1#: 7H05 C	20							Pres	ærvat	ion &	∦ of C	ontain	ers	Matríx	891						Luca			ondeau	· 48	E E
( <b>/</b> 4uo a				qjda		pe	Þ€	519H							orto vitosas e 10241 s Sailvad 10241 s Sailvad	.08 WS108	9001 XL	(Vinser)	C.	ก็และเวอาย			· · · · ·			re-Schedule) 24	
)\$n qej) # 81				a pninnips	iq90 pnibn	aqmes aleC	lqms2 əmi1	erro r illered	66	юл 1002	*O5 <sup>6</sup> )	HOEN	1006 1006	Sher ( Specify)	W prinhring = W W Cround W Matrix Won-Pottan	1.814 :H9	9001 X1 Hd	, nons (Cl, SO4	AR / ESP / CE	soliticio, a fivi svi isipiai	semivoletiles		.M.R.O.I			9) TAT HRUS [AT bisbriet:	
75		(CV FLR		8	Э	4-Jan-07	1230	<u>⊢</u> ⊔	×	1	1		۱ <u> </u>	,	soil	L ×	/ 	4	ŝ	\ N	\$		1			<u>×</u>	
207		N S/W		-		4-Jan-07	1245	-	×	┢					SOIL	X						×	•			×	r
-03		e s/w				4-Jan-07	1300	-	×						SOIL	X						×				×	
-04		W S/W		•		4-Jan-07	1315		×						SOIL	×		_				- <u>`</u>		-			
301		S S/W		-+		4-Jan-07	1330	-	×						SOIL	×						- <b>x</b>		-+		<u>~</u>	
													-							-					1		
				+	T					+	_		-+				-	_	$\uparrow$	-							
				╈				_			-		+				+-	╇						╋			
				+	$\uparrow$		+	╇		╉	-		-	Ţ		L	·			-		<u> </u>	-				1
Special	Instructions: NOTE: RUN BTE	X ANALYSIS IF TH	ID SI Hd		Įă			-		-	]	1	-	1	t	] <	1-1 (0)	abora	Cont to	Comm	ents: Intac						112.57
																거	$\frac{\langle z \rangle}{\sqrt{1}}$	OCs I	ree o	f Hear	lspac	6		B		N	
Relinquis	ALLY AND	1   	Date Third	Ĕ 🗞	<u> </u>	Received by:	Clarker	Par la	No. of Concession, Name					è, è	07 6		<u> ಗ</u>	ustod Ustod	on col y seal y seal	ntaine s on o s on o	odie((s))	ier(s)		-80	¥. ();	zzz	02.1.000
Relinquis	ined by:		Date	Ē	5	Redeived by:		ſ						Dal	ω	lime.	S I S	ample by by	Hand	Clie I	n Red	E S		ల్లుప్ర	ιö	N Star	1.1.1.1.1
Refinguis	Hed by: XNAN	- min / 1/	Date 5 /C7		6.0	Received by ELO		12						e V		Time		empe	fc2 rature	<u> </u>	G	đ	Ń	Ş		្	

## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Pluins	
Date/ Time:	11507 16:30	_
Lab ID # :	- 7A05011	-
initials:	CK	_

## Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1 30 °C	1
#2	Shipping container in good condition?	Xes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	1 des	No	Not Present	
#5	Chain of Custody present?	Xes	No		
<i>#</i> 6	Sample instructions complete of Chain of Custody?	Xes	No	· · · · · · · · · · · · · · · · · · ·	1
#7	Chain of Custody signed when relinquished/ received?	Yes	No		1
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./Lid	1
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
. <del>#</del> 10	Sample matrix/ properties agree with Chain of Custody?	Xes	No		
#11	Containers supplied by ELOT?	Xes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
<b>#13</b>	Samples properly preserved?	tes	No	See Below	<u> </u>
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Xes	No		
j#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	- <u>+</u>
#18	All samples received within sufficient hold time?	d'es	No	See Below	1
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	· • • • • • • • • • • • • • • • • • • •
1#20	VOC samples have zero headspace?	Xes	No	Not Apolicable	+

## Variance Documentation

Contact:	<u></u>	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 analy	ysis	

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

·. .



# Analytical Report

## Prepared for:

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 7A10007

Report Date: 01/13/07

Plains All American EH & S	Project: Jalmat #3	Fax: (432) 687-4914
1301 S. County Road 1150	Project Number: 2000-10610	
Midland TX, 79706-4476	Project Manager: Camille Reynolds	·

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- 2WW5	7A10007-01	Soil	01/09/07 12:30	01-10-2007 08:10
JM3- 3EW2	7A10007-02	Soil	01/09/07 12:40	01-10-2007 08:10

Project: Jalmat #3 Project Number: 2000-10610 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
JM3- 2WW5 (7A10007-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA71002	01/10/07	01/10/07	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"		"	н	"	"	
Xylene (p/m)	ND	0.0250	"	"	н	11	0	**	
Xylene (o)	ND	0.0250	"	"	н	11		n	
Surrogate: a,a,a-Trifluorotoluene		97.5 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.2 %	80-1	20	"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71003	01/10/07	01/11/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	н	"	н	
Carbon Ranges C28-C35	ND	10.0		u	"	n		п	
Total Hydrocarbons	ND	10.0	"		"	11	"		
Surrogate: 1-Chlorooctane		114 %	70-1	30	"	"	"	n	
Surrogate: 1-Chlorooctadecane		126 %	70-1	30	"	· <i>•</i>	"	"	
JM3- 3EW2 (7A10007-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA71014	01/10/07	01/11/07	EPA 8021B	
Toluene	ND	0.0250	"	"	0	"	"	11	
Ethylbenzene	ND	0.0250	н	"	"	n	"	n	
Xylene (p/m)	ND	0.0250	17	**		u		"	
Xylene (o)	ND	0.0250	51	"	"		"	n	
Surrogate: a,a,a-Trifluorotoluene		112 %	80-1	20	"	"		"	
Surrogate: 4-Bromofluorobenzene		108 %	80-1	20		п	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71003	01/10/07	01/11/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	и	"	"	ft	"		
Carbon Ranges C28-C35	ND	10.0	11			υ	"	"	
Total Hydrocarbons	ND	10.0			"	"	"	н	
Surrogate: 1-Chlorooctane		91.2 %	. 70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		100 %	70-1	30	"	"	"	"	

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- 2WW5 (7A10007-01) Soil									
% Moisture	10.0	0.1	%	1	EA71109	01/10/07	01/11/07	% calculation	
JM3- 3EW2 (7A10007-02) Soil									,
% Moisture	21.5	0.1	%	1	EA71109	01/10/07	01/11/07	% calculation	

Environmental Lab of Texas

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

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

#### Organics by GC - Quality Control

**Environmental Lab of Texas** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA71002 - EPA 5030C (GC)										
Blank (EA71002-BLK1)				Prepared &	Analyzed:	01/09/07				
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	н							
Ethylbenzene	ND	0.0250	. 11							
Xylene (p/m)	ND	0.0250	н							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	47.1		ug/kg	40.0		118	80-120			
Surrogate: 4-Bromofluorobenzene	39.8		"	40.0		99.5	80-120			
LCS (EA71002-BS1)				Prepared: 0	1/09/07 At	nalyzed: 01	/10/07			
Benzene	1.42	0.0250	mg/kg wet	1.25		114	80-120			
Toluene	1.38	0.0250	и	1.25		110	80-120			
Ethylbenzene	1.29	0.0250	"	1.25		103	80-120			
Xylene (p/m)	2.53	0.0250	"	2.50		101	80-120			
Xylene (o)	1.17	0.0250	н	1.25		93.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.3		ug/kg	40.0		85.8	80-120			
Surrogate: 4-Bromofluorobenzene	41.4		"	40.0		104	80-120			
Calibration Check (EA71002-CCV1)		·_		Prepared: 0	1/09/07 Ar	nalyzed: 01	/10/07			
Benzene	49. I		ug/kg	50.0		98.2	80-120			
Toluene	44.8		**	50.0		89.6	80-120	•		
Ethylbenzene	41.5			50.0		83.0	80-120			
Xylene (p/m)	80,4		"	100		80.4	80-120			
Xylene (0)	40.6		п	50.0		81.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	35.9		"	40.0		89.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.2		"	40.0		80.5	80-120			
Matrix Spike (EA71002-MS1)	Sou	rce: 7A09007	'-01	Prepared: 0	1/09/07 Ar	nalyzed: 01	/10/07			
Benzene	1.58	0.0250	mg/kg dry	1.43	ND	110	80-120			
Toluene	1.52	0.0250	<b>.</b> .	1.43	ND	106	80-120			
Ethylbenzene	1,43	0.0250	"	1.43	ND	100	80-120			
Xylene (p/m)	2.79	0.0250	"	2.85	ND	97.9	80-120			
Xylene (o)	1.30	0.0250	u	1.43	ND	90.9	80-120			· ·
Surrogate: a,a,a-Trifluorotoluene	34.4		ug/kg	40.0		86.0	80-120			<u></u>
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			

Environmental Lab of Texas

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

Page 4 of 9

#### **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 EA71002 - EPA 5030C (GC)										
Matrix Spike Dup (EA71002-MSD1)	Sou	rce: 7A09007	7-01	Prepared:	01/09/07 A	nalyzed: 01	/10/07			
Benzene	1.61	0.0250	mg/kg dry	1.43	ND	113	80-120	2.69	20	
Toluene	1.52	0.0250		1.43	ND	106	80-120	0.00	20	
Ethylbenzene	1.42	0.0250		1.43	ND	99,3	80-120	0.702	20	
Xylene (p/m)	2.75 ·	0.0250	"	2.85	ND	96.5	80-120	1.44	20	
Xylene (o)	1.28	0.0250	"	1.43	ND	89.5	80-120	1.55	20	
Surrogate: a,a,a-Trifluorotoluene	38.3		ug/kg	40.0		95.8	80-120			
Surrogate: 4-Bromofluorobenzene	37.2		"	40.0		93.0	80-120			
Batch EA71003 - Solvent Extraction (GC)										
Blank (EA71003-BLK1)				Prepared	01/10/07 A	nalvzed: 01	/11/07			

Blank (EA71003-BLK1)				Prepared: 01/10/	07 Analyzed: 01	1/11/07	
Carbon Ranges C6-C12	ND	10.0	mg/kg wet				
Carbon Ranges C12-C28	ND	10.0	n				
Carbon Ranges C28-C35	ND	10.0	н				
Total Hydrocarbons	ND	10.0	н				
Surrogate: 1-Chlorooctane	60.5		mg/kg	50.0	121	70-130	 
Surrogate: 1-Chlorooctadecane	65.1		"	50.0	130	70-130	
LCS (EA71003-BS1)				Prepared: 01/10/	07 Analyzed: 01	1/11/07	
Carbon Ranges C6-C12	613	10.0	mg/kg wet	500	123	75-125	
Carbon Ranges C12-C28	555	10.0	n	500	111	75-125	
Carbon Ranges C28-C35	ND	10.0	н	0.00		75-125	
Total Hydrocarbons	1170	10.0	"	1000	117	75-125	
Surrogate: 1-Chlorooctane	62.9		mg/kg	50.0	126	70-130	 •
Surrogate: 1-Chlorooctadecane	51.8		"	50.0	104	70-130	
Calibration Check (EA71003-CCV1)				Prepared: 01/10/	07 Analyzed: 01	1/11/07	
Carbon Ranges C6-C12	236		mg/kg	250	94,4	80-120	
Carbon Ranges C12-C28	299		"	250	120	80-120	
Total Hydrocarbons	535		н	500	107	80-120	
Surrogate: 1-Chlorooctane	54.4		"	50.0	109	70-130	 
Surrogate: 1-Chlorooctadecane	54.3		"	50.0	109	70-130	

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

	Devilt	Reporting	11.4.	Spike	Source	A/DEC	%REC		RPD	
Anaiyte	Kesuit	Limit	Units	Level	Result	%REC	Limits	KPD	Limit	Notes
Batch EA71003 - Solvent Extraction (GC)					<u>-</u>					
Matrix Spike (EA71003-MS1)	Sour	ce: 7A10005	i-08	Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
Carbon Ranges C6-C12	601	10.0	mg/kg dry	513	ND	117	75-125			
Carbon Ranges C12-C28	523	10.0		513	22.6	97.5	75-125			
Carbon Ranges C28-C35	ND	10.0		0.00	ND		75-125			
Total Hydrocarbons	1120	10.0	ц.,	1030	22.6	107	75-125			
Surrogate: 1-Chlorooctane	50.4		mg/kg	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	54.4		"	50.0		109	70-130			
Matrix Spike Dup (EA71003-MSD1)	Sour	ce: 7A10005	5-08	Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
Carbon Ranges C6-C12	608	10.0	mg/kg dry	513	ND	119	75-125	1.69	20	
Carbon Ranges C12-C28	528	10.0		513	22.6	98.5	75-125	1.02	20	
Total Hydrocarbons	1140	10.0		1030	22.6	108	75-125	0.930	20	
Surrogate: 1-Chlorooctane	54.1		mg/kg	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	58.4		"	50.0		117	70-130			
Batch EA71014 - EPA 5030C (GC)										
Blank (EA71014-BLK1)				Prepared &	k Analyzed	01/10/07				
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	11							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	39.5		ug/kg	40.0		98.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			
LCS (EA71014-BS1)				Prepared &	& Analyzed	: 01/10/07				
Benzene	1.45	0.0250	mg/kg wet	1,25		116	80-120			

1.41

1.31

2.57

1.21

42.0

45.5

0.0250

0.0250

0.0250

0.0250

.

ug/kg

"

1.25

1.25

2.50

1.25

40.0

40.0

Environmental Lab of Texas

Toluene

Ethylbenzene

Xylene (p/m)

Surrogate: a,a,a-Trifluorotoluene

Surrogate: 4-Bromofluorobenzene

Xylene (o)

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

113

105

103

96.8

105

114

80-120

80-120

80-120

80-120

80-120

80-120

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA71014 - EPA 5030C (GC)										
Calibration Check (EA71014-CCV1)				Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
Benzene	54.4		ug/kg	50.0		109	80-120		······································	···
Toluene	52.7		"	50.0		105	80-120			
Ethylbenzene	54.8		"	50.0		110	80-120			
Xylene (p/m)	99.0		"	100		99.0	80-120			
Xylene (0)	48.4		"	50.0		96.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	42.2		"	40.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	41.9			40.0		105	80-120			
Matrix Spike (EA71014-MS1)	Sou	rce: 7A10007	-02	Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
Benzene	1.72	0.0250	mg/kg dry	1.59	ND	108	80-120			
Toluene	1.59	0.0250	"	1.59	ND	100	80-120			
Ethylbenzene	1.48	0.0250	**	1.59	ND	93.1	80-120			
Xylene (p/m)	3.03	0.0250	"	3.18	ND	95.3	80-120			
Xylene (0)	1.31	0.0250	"	1.59	ND	82.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		ug/kg	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	40.0		"	40.0		100	80-120			
Matrix Spike Dup (EA71014-MSD1)	Sou	rce: 7A10007	7-02	Prepared:	01/10/07 A	nalyzed: 01	/11/07			
Benzene	1.76	0.0250	mg/kg dry	1.59	ND	111	80-120	2.74	20	
Toluene	1.70	0.0250	"	1.59	ND	107	80-120	6.76	20	
Ethylbenzene	1.60	0.0250	"	1.59	ND	101	80-120	8.14	20	
Xylene (p/m)	3.26	0.0250		3.18	ND	103	80-120	7.77	20	
Xylene (o)	1.50	0.0250	"	1.59	ND	94.3	80-120	13.5	20	
Surrogate: a,a,a-Trifluorotoluene	39.7		ug/kg	40.0		99.2	80-120			
Surrogate: 4-Bromofluorobenzene	44.9		"	40.0		112	80-120			

Environmental Lab of Texas

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

Page 7 of 9

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Snike	Source		%PEC			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA71109 - General Preparation (Prep)										
Blank (EA71109-BLK1)				Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
% Moisture	ND	0.1	%							
Duplicate (EA71109-DUP1)	Sou	-ce: 7A09015-0	01	Prepared: (	)1/10/07 A	nalyzed: 01	/11/07			
% Solids	91.3		%		92.0			0.764	20	
Duplicate (EA71109-DUP2)	Sou	-ce: 7A10007-0	)2	Prepared: (	01/10/07 A	nalyzed: 01	/11/07			
% Solids	77.8		%		78.5			0.896	20	
Duplicate (EA71109-DUP3)	Sou	ce: 7A10011-0	)2	Prepared: (	01/10/07 A	nalyzed: 01.	/11/07			
% Solids	90.4		%		90.9			0.552	20	

Environmental Lab of Texas

Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### **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 Julia

1/13/2007

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.

Date:

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

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

Environmental Lab of Texas

2						2600 V	Vest I-	20 Eas	ې يې					f ű	:euc	132-56	3-171	0 0		
Project Manager	Z will R	000	s		~	Sean	rexe.		2		Proj	ect Na	me:	Ļ.	1	1	5			
Company Name	lains Pit	61.12	42									Proje	44 44 41	3	3	5	a	21		
Company Address:					}					Ę	م	oject	ä	C	2	Õ	2-0	12	200	اکر از
City/State/Zip:			-							ļ		₫.	( #							
Telephone No:				Fax No:						er 	eport	Forma		Stand	ard		TRRP		ž	2 DE
Sampler Signature:	- Cler			e-mail:	Ke	weit	ŝ.	A green	2	4	.				ovier 1	Eor				- F
lab use only)													FF	CLP						72 hrs
DRIDER #: //A/000/					<b>L</b>	Presei	valion &	# of Con	itainers	Ÿ	atrix	851		45		09				87
					<u>s</u>	const				sgbul∂≈,	Soil/Solid	108 1098	s, K) a, K)	A CC Pb Ho		or BTEX 828				epodule) 34
uo əsn qej)	រៀបទាប ព្រះរោវ	hiqad gr	belqris2 (	belqma2 e	Hiered	207	"(			r ( Specity)	-2 helewhruarD eq2 oldelo4-Da	08) 1.81%	15 (C1, 504, M 19 (C1, 504, M 19	VESP / CEC	səii	(EOSTERZOS)	E.M.			ε⋅øn9) ΤΑΤ Ηέ
HELD CODE	1ige8	Iibna	ene di	emi <b>T</b>	# (0)0] -1 D(0) -	HNO <sup>:</sup>	H <sup>2</sup> 20	ioen S <sup>zen</sup>	anoN	Q=Md	PN≃dN ∉MS	нат Нат	ioite <b>3</b> noinA	RAZ	Volati	(378)	10.N 10.R			รักษ
01 JM3-2ww5	_	1/9	107 1	5 5 0		2		_			10	X				*	_	1	+	
AC. JM3-3EWZ		1/2	107 1	240		2						X				*		1		
		<u> </u>							_	_		<u> </u>				_		_		_
							-			_		+				-				
		.   					-			_		+								_
							+						-	<u></u>					+	
			-			1				+		╄╍								
					┞╼┤															
										_			_						-	
Special Instructions:													Labor VOCE	atory C Contraction Free of	omme mersi Head	nts: pace?			20	ZZ
Relinquished by:	Date Tim 1/10/07/00/	e Rece	ved by:							Date		inte	Custo Custo Custo	00.00 V seals VScals	laitifet on co on co	s) Itainer Jer(s)	() ()			z z Z
Relinquished by:	Dale Tim	e Rece	ved by:							Date		ime	Sampl by by	Sample Counter	Clerk	Rep. ?	סאו	Fedi	E M - Co	zző
Relinquished by:	Date Tim	e Rece	Leyrus Lor	No en	4					Date	<u> </u>	ime 1. (O	Temp	rature	ł nodr	teceipl	Ó	S		ç

. .

----

# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

.⊂lient:	Plains	·
ate/ Time:	l'ildon	
Lab ID # :	MALOCON	
itials:	CK	

## Sample Receipt Checklist

				с	lient Initials
#1	Temperature of container/ cooler?	Yes	No	0,5 °C	
#2	Shipping container in good condition?	Xes)	No		
3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Presend	
4-4 	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Xes	No		
3	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)?	Xes	No	ID written on Cont./ Lid	
}	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?	Ares	No		
-12	Samples in proper container/ bottle?	Fes	No	See Below	
13	Samples properly preserved?	Hes	No	See Below	
#14	Sample bottles intact?	Tes	No		
<del>-</del> #15	Preservations documented on Chain of Custody?	Yes	No		
6	Containers documented on Chain of Custody?	Hes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Xes	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:
egarding:			
prrective Action Taken	1:		
			· · · · · · · · · · · · · · · · · · ·
neck all that Apply:		See attached e-mail/ fax Client understands and would like to proc	ceed with analysis

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event



# Analytical Report

## **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 7A11001

Report Date: 01/12/07

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

Fax: (432) 687-4914

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3-SF-15	7A11001-01	Soil	01/10/07 13:00	01-11-2007 07:58

#### Organics by GC

#### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3-SF-15 (7A11001-01) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA71014	01/11/07	01/11/07	EPA 8021B	
Toluene	ND	0.0250		.,	**	"	и	11	
Ethylbenzene	ND	0.0250		"		n	п	"	
Xylene (p/m)	ND	0.0250	19	"	"	n	11	"	
Xylene (o)	ND	0.0250	**		"	rt	"	n	
Surrogate: a,a,a-Trifluorotoluene		107 %	80-1	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		116 %	80-1	20	"	"	".		
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EA71112	01/11/07	01/11/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	u	**	"	n	"	"	
Carbon Ranges C28-C35	ND	10.0		11	.,	"	и	"	
Total Hydrocarbons	ND	10.0	u	"		"	μ	n	
Surrogate: 1-Chlorooctane		76.8 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		87.4 %	70-1	30	"	. "	"	11	

Environmental Lab of Texas

#### Project: Jalmat #3 Project Number: 2000-10610 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
JM3-SF-15 (7A11001-01) Soil									
% Moisture	4.8	0.1	%	1	EA71211	01/11/07	01/12/07	% calculation	

Environmental Lab of Texas

#### **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 EA71014 - EPA 5030C (GC)								_		
Blank (EA71014-BLK1)				Prepared &	z Analyzed	: 01/10/07				
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250								
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	u							
Xylene (o)	ND	0.0250	11							
Surrogate: a,a,a-Trifluorotoluene	39.5		ug/kg	40.0	<u> </u>	98.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.4		"	40.0		91.0	80-120			
LCS (EA71014-BS1)				Prepared &	Analyzed	: 01/10/07				
Benzene	1.45	0.0250	mg/kg wet	1.25	· · · ·	116	80-120			<del></del>
Toluene	1.41	0.0250	**	1.25		113	80-120			
Ethylbenzene	1.31	0.0250	**	1.25		105	80-120			
Xylene (p/m)	2.57	0.0250	"	2.50		103	80-120			
Xylene (o)	1.21	0.0250		1.25		96.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	42.0		ug/kg	40.0		105	80-120		· · ·	
Surrogate: 4-Bromofluorobenzene	45.5		"	40.0		114	80-120			
Calibration Check (EA71014-CCV1)				Prepared: (	)1/10/07 A	nalyzed: 01	/11/07			
Benzene	54.4	,	ug/kg	50.0		109	80-120			
Toluene	52.7		"	50.0		105	80-120			
Ethylbenzene	54.8		u	50.0		110	80-120			
Xylene (p/m)	99.0		"	100		99.0	80-120			
Xylene (0)	48.4		n	50.0		96.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	42.2		"	40.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	41.9			40.0		105	80-120			
Matrix Spike (EA71014-MS1)	Sou	rce: 7A10007	-02	Prepared: 0	01/10/07 A	nalyzed: 01	/11/07			
Benzene	1.72	0.0250	mg/kg dry	1.59	ND	108	80-120			<u> </u>
Toluene	1.59	0.0250	11	1.59	ND	100	80-120			
Ethylbenzene	1.48	0.0250	u	1.59	ND	93.1	80-120			
Xylene (p/m)	3.03	0.0250	"	3.18	ND	95.3	80-120			
Xylene (o)	1.31	0.0250	11	1.59	ND	82.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.0		ug/kg	40.0		92.5	80-120			
Surrogate: 4-Bromofluorobenzene	40.0		"	40.0		100	80-120			

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

Analyte	Source:     7A10007-02       1.76     0.0250     mg/kg       1.70     0.0250     "       1.60     0.0250     "       3.26     0.0250     "       1.50     0.0250     "	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch EA71014 - EPA 5030C (GC)										
Matrix Spike Dup (EA71014-MSD1)	Sour	rce: 7A10007	-02	Prepared: (	01/10/07 A	nalyzed: 01	/11/07			•
Benzene	1.76	0.0250	mg/kg dry	1.59	ND	111	80-120	2.74	20	· ·
Toluene	1.70	0.0250	11	1.59	ND	107	80-120	6.76	20	
Ethylbenzene	1.60	0.0250	"	1.59	ND	101	80-120	8.14	20	
Xylene (p/m)	3.26	0.0250	"	3,18	ND	103	80-120	7.77	20	
Xylene (o)	1.50	0.0250		1.59	ND	94.3	80-120	13.5	20	
Surrogate: a,a,a-Trifluorotoluene	39.7		ug/kg	40.0		99.2	80-120			
Surrogate: 4-Bromofluorobenzene	44.9		"	40.0		112	80-120			
Batch EA71112 - Solvent Extraction (GC	)									

#### Blank (EA71112-BLK1) Prepared & Analyzed: 01/11/07 Carbon Ranges C6-C12 ND 10.0 mg/kg wet ND 10.0 Carbon Ranges C12-C28 Carbon Ranges C28-C35 ND 10.0 Total Hydrocarbons ND 10.0 ,, Surrogate: 1-Chlorooctane 39.7 50.0 79.4 70-130 mg/kg 50.0 88.0 Surrogate: 1-Chlorooctadecane 44.0 70-130 LCS (EA71112-BS1) Prepared & Analyzed: 01/11/07 Carbon Ranges C6-C12 580 10.0 mg/kg wet 500 116 75-125 486 10.0 500 97.2 75-125 Carbon Ranges C12-C28 Carbon Ranges C28-C35 ND 10.0 0.00 75-125 Total Hydrocarbons 1070 10.0 11 1000 107 75-125 Surrogate: 1-Chlorooctane 54.6 50.0 109 70-130 mg/kg 43.7 50.0 87.4 70-130 Surrogate: 1-Chlorooctadecane Prepared: 01/11/07 Analyzed: 01/12/07 Calibration Check (EA71112-CCV1) Carbon Ranges C6-C12 235 mg/kg 250 94.0 80-120 267 250 107 80-120 Carbon Ranges C12-C28 ... 500 100 Total Hydrocarbons 502 80-120 56.9 50.0 114 70-130 Surrogate: 1-Chlorooctane 50.0 109 Surrogate: 1-Chlorooctadecane 54.6 70-130

Environmental Lab of Texas

#### **Organics by GC - Quality Control**

#### **Environmental Lab of Texas**

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

#### Batch EA71112 - Solvent Extraction (GC)

Matrix Spike (EA71112-MS1)	Sourc	e: 7A11001	-01	Prepared: 0	)1/11/07 A	nalyzed: 0				
Carbon Ranges C6-C12	642	10.0	mg/kg dry	525	ND	122	75-125			
Carbon Ranges C12-C28	597	10.0	"	525	ND	114	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1240	10.0	"	1050	ND	118	75-125			
Surrogate: 1-Chlorooctane	58.0		mg/kg	50.0		116	70-130			
Surrogate: 1-Chlorooctadecane	49.6		"	50.0		<i>99.2</i>	70-130			
Matrix Spike Dup (EA71112-MSD1)	Sourc	e: 7A11001	-01	Prepared: 0	)1/11/07 A	nalyzed: 0	1/12/07			
Carbon Ranges C6-C12	629	10.0	mg/kg dry	525	ND	120	75-125	1.65	20	
Carbon Ranges C12-C28	546	10.0	11	525	ND	104	75-125	9.17	20	
Carbon Ranges C28-C35	ND	10.0	11	0.00	ND		75-125		20	
Total Hydrocarbons	1180	10.0	u.	1050	ND	112	75-125	5.22	20	
Surrogate: 1-Chlorooctane	52.3		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	56.6	•	"	50.0		113 .	70-130			

Environmental Lab of Texas

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

		Reporting		Snike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA71211 - General Preparation (Prep)	- 4									
Blank (EA71211-BLK1)				Prepared: (	)1/11/07 A	nalyzed: 01	/12/07			
% Solids	100		%							wat
Duplicate (EA71211-DUP1)	Sour	ce: 7A10021-	01	Prepared: (	)1/11/07 A	nalyzed: 01	/12/07			•
% Solids	95.2		%		95.4			0.210	20	
Duplicate (EA71211-DUP2)	Sour	ce: 7A11003-	06	Prepared: (	)1/11/07 A	nalyzed: 01	/12/07			
% Solids	85.3		%		98.6			14.5	20	

#### Environmental Lab of Texas

#### **Notes and Definitions**

DÉT	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 Julies

1/12/2007

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.

Date:

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

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

Environmental Lab of Texas

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

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

Page 8 of 8

UEST 33-1800 33-1713				p	- 1	Õ	L	72 hrs	<u>(u)</u>	s (eluberioz-eng) TAT H2UR	ŗ.							-		Zz	23	ĝΖ	z ş	
UEST 53-1800 53-1713								-					+		+	-	+	+	+		Å.	5	د ۲.√	
UEST 83-1800 83-1713				}																			Fed	
23-1		N	5	ł		g				M.A.O.N					_	_	-	+	<u> </u>				_	
	m	S	3			78	ļ		<del>7</del>	BCI				-	_		_	<u> </u>	<u> </u>	1 Ø.	(s)		2HD	
2-56 C	-		S.	2 1			į	╡╷┤╯	\$60	BTEX 00218)5090 or BTEX 8	X		_	-+-					4-		all		19 19 19 19 19 19 19 19 19 19 19 19 19 1	•
43	Ř		Ś						<b> </b>	sollafovime2			-+					_		uou		000	Soft R UF	ť
ic i	3	0	3	ţ,		ard	100		<u> </u>	Votatiles										Lug in	on	CD I	Ţ,	1
a de la	13	$\mathcal{O}$				and	ľ		1 26	Metals: As Ap Bis Cd Cr Pb He		_ <b>_</b>				_	-+	+-	+		con eals	eats and		1
वि		N	Ű			т П		12 IS		SAR / ESP / CEC		- +	-+	-+				+	+	ato ato	s on dy s			1010
	`_}		 ;;	!	*			F		Anions (CL 504, Alkalimity)			+	-+	-+-	-+-	-+-		+		in the second	usto	මු රි හි ම	
2	ame	ect #	Lo L		ő	at:	1			Callons (Callon Ma Ki				-+	-+					100	<u> </u>	010	ň	Ē
Ϋ́,	Ct N	Įõ	iect		-	Шo				AND THE AND THE AND	1.1	┝╼╁			-+-			+	+	-	au		2	me
ί L	roje	u.	0. d	-		ц Ц	Ĺ	▃▙▃┶▃	18att	APPENDING BILL HOT	1.2	┝╾╍╇					╺╾┥╌	+-	+	4	۴	٢	=	Ë
* *	ã					ode	ļ		Ě	bilosikos=s taikwbruons = WS									1	1		+		-
5						Ŕ	ļ		ž	BODURE STOREM BUILD = WO							ł		1	1	e		D.	a
S	ł			ł	1				H	Other ( Specify)	1				-+				+	1	Dat	Ĩ	ie ca	09i
วี	1								sian	BUON	+			-+			-+-			1	1			
3st 765		i					•		ietro	<sup>c</sup> O <sup>2</sup> S <sup>2</sup> <sup>p</sup> N	1			-+		-†		-		1				
2162				}					ie I	HOBN				┉┯╀			+	+	+-	1				
CHJ tJ-2 xas			1							'os'h	+	<u>├</u> - ┦			-+	-	-	+	+	1				
Ves , Te			1						Valio	. IOH	1					+	1	T		1				
)0 V Ssa						1			leser	°OŃH	1-					-1		-	1	1				ł
1261 Ode		I								106	15			-	-1	-	-			1				
						ł		5.5	578	otal #. of Containers 1402	1				-	-	-	$\uparrow$		1				
			1			,	•		Ī	ield Filtered	1					-	-				1			
	5	5				Fax No:	e-mail.			bəlqms& əmiT	1300													DT:
	ley ala	1					i			Date Sampled	i lielos	, , , , , , , , , , , , , , , , , , ,									Received by:		Received by:	Received by ELC
Δ.	1~		4					N		diqa Defibr	э				}						le l	00	e e	2
ŭ	<b>6</b> .,	A					00	Ń		and a second second	+	+	<u> </u>				-+	-+-	+	-	Tim	2	Ter Ter	E.
×	2	<b>`</b> ,					$V_{q}$			edinning Decth	a		L					-		_		0		4
5	Can.	D) a 1								·											Daje	1/11/07	Date	Date
							N				N. C.											5		
lane	ct Manager:	vanv Name		pany Address.	State/Zip:	hone No:	sler Signature		1411001		M 3 - 5 M									dions:	12/6	L'er	1	
<b>S</b>	roie	, la	5	e S	ity/	elet	am	E	نه. •هد		1	5		<b>.</b>						struc	A D	5	ο Λ	d by:
	ã		) (	U U	U	F	S	b use an	RDER#	(Vino esu dsi) # BJ										Decial Ins	linquistie		elinquisher	linguisher

-----

.....
# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Plains	Pipeline
late/ Time:	rollulor_	0758
Lab ID # :	TALLOOL	
itials:	Bh	<u>n</u>

# Sample Receipt Checklist

				I	Client Initials
<del></del> 1	Temperature of container/ cooler?	Yes	No	2.55 °C	
#2	Shipping container in good condition?	(Yes)	No		
3	Custody Seals intact on shipping container/ cooler?	Yes	NO	Not Present	
\$	Custody Seals intact on sample bottles/ container?	Yes	NO	Not Present	
#5	Chain of Custody present?	Yes)	No		
-;	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)?	<u>Yes</u>	No	ID written on Cont./ Lid	
-" <b>`</b> }	Container label(s) legible and intact?	Xes)	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	Yes	No	· ·	1
#12	Samples in proper container/ bottle?	Xes)	No	See Below	
13	Samples properly preserved?	(es)	No	See Below	
#14	Sample bottles intact?	(res)	No		
<u>#15</u>	Preservations documented on Chain of Custody?	(res)	No		
6	Containers documented on Chain of Custody?	(Yes)	No		
<b>.</b> .7	Sufficient sample amount for indicated test(s)?	des	No	See Below	
<b>#18</b>	All samples received within sufficient hold time?	Tes	No	See Below	
9	Subcontract of sample(s)?	Yes	No	Not Applicable	
0	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact:	<u>_</u> .	Contacted by:	Date/ Time:	
garding:			· 	
rrective Action Taker	ו: ·			
Teck all that Apply:		See attached e-mail/ fax Client understands and would I Cooling process had begun she	ike to proceed with analysis ortly after sampling event	



A Xenco Laboratories, Inc. Company

# Analytical Report

## **Prepared for:**

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

Project: Jalmat #3 Project Number: 2000-10610 Location: Clay Osborn Ranch

Lab Order Number: 7A17007

Report Date: 01/25/07

Plains All American EH & SProject:Jalmat #3Fax: (432) 687-49141301 S. County Road 1150Project Number:2000-10610Midland TX, 79706-4476Project Manager:Camille Reynolds

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
JM3- SP	7A17007-01	Soil	01/17/07 11:00	01-17-2007 16:35

Project: Jalmat #3 Project Number: 2000-10610 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
JM3- SP (7A17007-01) Soil									
Carbon Ranges C6-C12	32.4	10.0	mg/kg dry	1	EA71806	01/18/07	01/19/07	EPA 8015M	
Carbon Ranges C12-C28	155	10.0	"	"	•	"	n	55	
Carbon Ranges C28-C35	J [4.63]	10.0	"			"	н	"	J
Total Hydrocarbons	187	10.0	· H	"	"	**	"	п	
Surrogate: 1-Chlorooctane		92.8 %	70-13	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		92.8 %	70-13	30	"	"	"	"	

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

#### Project: Jalmat #3 Project Number: 2000-10610 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
JM3- SP (7A17007-01) Soil									
% Moisture	22.1	0.1	%	1	EA71901	01/18/07	01/19/07	% calculation	

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

Page 3 of 10

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
JM3- SP (7A17007-01) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EA72209	01/22/07	01/23/07	EPA 8260B	
Toluene	ND	0.00200	н	"		n		"	
Ethylbenzene	ND	0.00200	"		"	*	"	"	
Xylene (p/m)	ND	0.00200	"		11	"	"	11	
Xylene (0)	0.00809	0.00200	n	"		н	n	"	
Surrogate: Dibromofluoromethane		111 %	70-13	9	"	"	"	"	·····
Surrogate: 1,2-Dichloroethane-d4		93.8 %	52-14	9	"	"	"	"	
Surrogate: Toluene-d8		93.6 %	76-12	5	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		121 %	66-14	5	"	"	"	n	

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

Plains All American EH & S 1301 S. County Road 1150 Midland TX, 79706-4476		P Project Nu Project Ma	Project: Jah umber: 200 unager: Car	mat #3 00-10610 mille Reynol	lds				Fax: (432)	687-4914
· · · ·	0	rganics by	- GC - Q	uality Co	ontrol				<u></u>	
		Environn	nental L	ab of Te	xas					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA71806 - Solvent Extraction (GC)										
Blank (EA71806-BLK1)				Prepared: (	01/18/07 A	nalyzed: 01	/22/07			
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	11							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	44.3		mg/kg	50.0		88.6	70-130			

LCS (EA71806-BS1)			Prepared: 01/18	/07, Analyzed: 01	/19/07
Carbon Ranges C6-C12	563	10.0 mg/kg wet	500	113	75-125
Carbon Ranges C12-C28	468	10.0 "	500	93.6	75-125
Carbon Ranges C28-C35	ND	10.0 "	0.00		75-125
Total Hydrocarbons	1030	10.0 "	1000	103	75-125
Surrogate: 1-Chlorooctane	55.0	mg/kg	50.0	110	70-130
Surrogate: 1-Chlorooctadecane	51.6	"	50.0	103	70-130

50.0

71.0

70-130

35.5

Calibration Check (EA71806-CCV1)	Prepared: 01/18/07 Analyzed: 01/20/07								
Carbon Ranges C6-C12	244	mg/kg	250	97.6	80-120				
Carbon Ranges C12-C28	282	н	250	113	80-120				
Total Hydrocarbons	526	н	500	105	80-120				
Surrogate: 1-Chlorooctane	61.8	"	50.0	124	70-130				
Surrogate: 1-Chlorooctadecane	52.6	"	50.0	105	70-130				

Matrix Spike (EA71806-MS1)	Sourc	Prepared:	01/18/07	Analyzed: 0	1/20/07		
Carbon Ranges C6-C12	709	10.0 mg/kg o	lry 597	ND	119	75-125	 
Carbon Ranges C12-C28	573	10.0 "	597	ND	96.0	75-125	
Carbon Ranges C28-C35	ND	10.0 "	0.00	ND		75-125	
Total Hydrocarbons	1280	10.0 "	1190	ND	108	75-125	
Surrogate: 1-Chlorooctane	59.5	mg/kg	z 50.0		119	70-130	 
Surrogate: 1-Chlorooctadecane	- 48.6	п	50.0		97.2	70-130	

Environmental Lab of Texas

Surrogate: 1-Chlorooctadecane

A Xenco Laboratories, Inc. Company

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

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

Page 5 of 10

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

20

# **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 EA71806 - Solvent Extraction (GC)										
Matrix Spike Dup (EA71806-MSD1)	Sour	ce: 7A17002	2-10	Prepared: (	01/18/07 A	Analyzed: 01/20/07				
Carbon Ranges C6-C12	698	10.0	mg/kg dry	597	ND	117	75-125	1.69	20	
Carbon Ranges C12-C28	568	10.0	11	597	. ND	95.1	75-125	0.942	20	
Carbon Ranges C28-C35	ND	10.0	н	0.00	ND		75-125		20	

Total Hydrocarbons	1270	10.0 "	1190	ND	107	75-125	0.930
Surrogate: 1-Chlorooctane	59.8	mg/kg	50.0		120	70-130	
Surrogate: 1-Chlorooctadecane	48.8	"	50.0		97.6	70-130	

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

**Environmental Lab of Texas** 

		Penorting	•	Spike	Source		#/DEC			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EA71901 - General Preparation (Prep)										
Blank (EA71901-BLK1)				Prepared: (	01/18/07 A	nalyzed: 01	/19/07			
% Solids	100		%							
Duplicate (EA71901-DUP1)	Sourc	e: 7A17007-	01	Prepared: (	)1/18/07 A	nalyzed: 01	/19/07			
% Solids	76.7		%		77.9			1.55	20	
Duplicate (EA71901-DUP2)	Sourc	e: 7A17005-	01	Prepared: (	)1/18/07 A	nalyzed: 01	/19/07			
% Solids	61.0		%		62.7		·	2.75	20	

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

Page 7 of 10

4

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### **Environmental Lab of Texas**

Analyza	Pagult	Reporting	Unite	Spike	Source	%PEC	%REC	רום ק	RPD Limit	Notas
				LEVEI	Result	70KEC				INDIES
Batch EA72209 - EPA 5030C (GCMS)										
Blank (EA72209-BLK1)				Prepared &	Analyzed:	01/22/07				
Benzene	ND	0.00100	mg/kg wet				·			<del>.</del> ·
Toluene	ND	0.00100	*	•						
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	**							
Xylene (o)	ND	0.00100	"							
Surrogate: Dibromofluoromethane	49.5	······	ug/kg	50.0		99.0	70-139			
Surrogate: 1,2-Dichloroethane-d4	45.5		"	50.0		91.0	52-149			
Surrogate: Toluene-d8	46.8		"	50.0		93.6	76-125			
Surrogate: 4-Bromofluorobenzene	50.3		"	50.0		101	66-145			
LCS (EA72209-BS1)				Prepared &	Analyzed:	01/22/07				
Benzene	0.0491	0.00100	mg/kg wet	0.0500		98.2	70-130			
Toluene	0.0458	0.00100	11	0.0500		91.6	70-130			
Ethylbenzene	0.0540	0.00100	**	0.0500		108	70-130			
Xylene (p/m)	0.104	0.00100	"	0.100		104	70-130			
Xylene (o)	0.0552	0.00100	**	0.0500		110	70-130			
Surrogate: Dibromofluoromethane	56.8		ug/kg	50.0		114	70-139		····	
Surrogate: 1,2-Dichloroethane-d4	50.8		"	50.0		102	52-149			
Surrogate: Toluene-d8	47.8		"	50.0		95.6	76-125			
Surrogate: 4-Bromofluorobenzene	53.7		"	50.0		107	66-145			
Calibration Check (EA72209-CCV1)				Prepared &	Analyzed:	01/22/07				
Toluene	45.2		ug/kg	50.0		90.4	70-130			
Ethylbenzene	49.5		. "	50.0		99.0	70-130			
Surrogate: Dibromofluoromethane	54.1		"	50.0		108	70-139			
Surrogate: 1,2-Dichloroethane-d4	50.2		"	50.0		100	52-149			
Surrogate: Toluene-d8	49.3		"	50.0		98.6	76-125			
Surrogate: 1-Bromofluorobenzene	56.7		"	50.0		113	66-145			

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### **Environmental Lab of Texas**

Analista	D 14	Reporting	L Inciden	Spike	Source	0/050	%REC		RPD	
Апаную	Result	Limit	Units	Level	Result	%KEC	Limits	KPD	Limit	Notes
Batch EA72209 - EPA 5030C (GCMS)										·····
Matrix Spike (EA72209-MS1)	Sou	rce: 7A17002	2-05	Prepared: (	01/22/07 A	nalyzed: 01	/23/07			
Benzene	0.112	0.00200	mg/kg dry	0.116	ND	96.6	70-130			
Toluene	0.111	0.00200	"	0.116	ND	95.7	70-130			
Ethylbenzene	0.110	0.00200	"	0.116	ND	94.8	70-130			
Xylene (p/m)	0.223	0.00200	"	0.232	ND	96.1	70-130			
Xylene (o)	0.117	0.00200	"	0.116	ND	101	70-130			
Surrogate: Dibromofluoromethane	63.2		ug/kg	50.0		126	70-139			
Surrogate: 1,2-Dichloroethane-d4	48.7		"	50.0		97.4	52-149			
Surrogate: Toluene-d8	47.3		"	50.0		94.6	76-125			
Surrogate: 4-Bromofluorobenzene	55.1		"	50.0		110	66-145			
Matrix Spike Dup (EA72209-MSD1)	Sou	rce: 7A17002	2-05	Prepared: (	01/22/07 A	nalyzed: 01	/23/07			
Benzene	0.117	0.00200	mg/kg dry	0.116	ND	101	70-130	4.45	20	
Toluene	0.106	0.00200	"	0.116	ND	91.4	70-130	4.60	20	
Ethylbenzene	0.116	0.00200	n	0.116	ND	100	70-130	5.34	20	
Xylene (p/m)	0.230	0.00200	"	0.232	ND	99.1	70-130	3.07	20	
Xylene (o)	0.124	0.00200	"	0.116	ND	107	70-130	5.77	20	
Surrogate: Dibromofluoromethane	68.1		ug/kg	50.0		136	70-139			
Surrogate: 1,2-Dichloroethane-d4	53.0		"	50.0		106	52-149			
Surrogate: Toluene-d8	47.3		"	50.0		94.6	76-125			
Surrogate: 4-Bromofluorobenzene	55.7		n	50.0		111	66-145			

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

.

#### Project: Jalmat #3 Project Number: 2000-10610 Project Manager: Camille Reynolds

Fax: (432) 687-4914

#### **Notes and Definitions**

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

Dup Duplicate

Report Approved By:

Date: 1/25/2007

Brent Barron, Laboratory Director/Corp. Technical Director Celey D. Keene, Org. Tech Director Raland K. Tuttle, Laboratory Consultant James Mathis, QA/QC Officer Jeanne Mc Murrey, Inorg. Tech Director

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

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

Environmental Lab of Texas

A Xenco Laboratories, Inc. Company

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

Page 10 of 10



# Environmental Lab of Texas

Client:	Plains
Date/ Time:	1/11/07 110:35
Lab ID # :	74170007
Initials:	( K

Variance/ Corrective Action Report- Sample Log-In

# Sample Receipt Checklist

				Cilen	ារផង
#1	Temperature of container/ cooler?	Yes	No	0.5 °C	
#2	Shipping container in good condition?	des	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?	Xes	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	1D 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?	Xes	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?	265	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?	Xes)	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:									
<u></u>									

Check all that Apply:

Initials:

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event