

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action 1RP-2723

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Plains Pipeline, LP	Contact	Jason Henry
Address	2530 State Hwy. 214, Denver City, TX 79323	Telephone No.	(575) 441-1099
Facility Name	Scharb Meter Sump Overflow	Facility Type	Crude Oil Storage
Surface Owner	Plains Pipeline, L.P.	Mineral Owner	
		Lease No.	

LOCATION OF RELEASE API # 30-025-12803

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	34	20S	34E					Lea

Latitude N 32.5334° Longitude W 103.5457°

NATURE OF RELEASE

Type of Release	Crude Oil	Volume of Release	23 bbls	Volume Recovered	6 bbls
Source of Release	Sump overflow	Date and Hour of Occurrence	07/01/2011 @ 04:30	Date and Hour of Discovery	07/01/2011 @ 04:30
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Verbal notification to Geoff Leking (Voice mail)		
By Whom?	Jason Henry	Date and Hour	07/01/2011 @ 14:00		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

HOBBS OCD

MAR 22 2012

GW=90'

Describe Cause of Problem and Remedial Action Taken.*

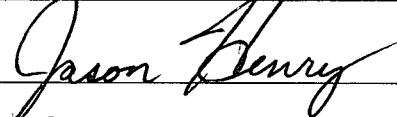
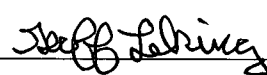
RECEIVED

Check meter at Lynch Station locked down and relieved to the sump. The sump was operating but couldn't keep up and the sump overflowed. A vacuum truck was utilized to recover the crude oil that pooled on the surface.

Describe Area Affected and Cleanup Action Taken.*

Please see the attached Basin Environmental Remediation Summary and Site Closure Request for details regarding the remedial activities conducted at the site.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jason Henry	ENVU SPECIALIST:	
Title: Remediation Coordinator	Approved by District Supervisor: 	
E-mail Address: jhenry@paalp.com	Approval Date: 3-22-12	Expiration Date: —
Date: 03/22/2012 Phone: (575) 441-1099	Conditions of Approval: —	Attached <input type="checkbox"/>
		1RP-7-11-2723

* Attach Additional Sheets If Necessary

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
bjarguijo@basinenv.com
Office: (575) 396-2378 Fax: (575) 396-1429



REMEDIATION SUMMARY & SITE CLOSURE REQUEST

HOBBS OCD

MAR 22 2012

RECEIVED

**PLAINS MARKETING, LP
SCHARB METER SUMP OVERFLOW
Plains SRS #2011-106
Lea County, New Mexico
Unit Letter "B" (NW/NE), Section 34, Township 20 South, Range 34 East
Latitude 32. 5334° North, Longitude 103.5457° West
NMOCD Reference #1RP-07-11-2723**

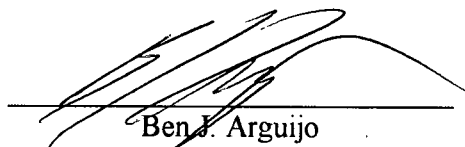
Prepared For:

Plains Pipeline, LP
333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared By:

Basin Environmental Service Technologies, LLC
3100 Plains Highway
Lovington, New Mexico 88260

December 2011


Ben J. Arguijo
Project Manager

*Approved
Staff
Env. Specialist
NMOCD-HOBBS
3/22/12*

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, LP (Plains), has prepared this *Remediation Summary & Site Closure Request* for the release site known as Scharb Meter Sump Overflow. The legal description of the release site is Unit Letter "B" (NW/NE), Section 34, Township 20 South, Range 34 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32.5334° North latitude and 103.5457° West longitude. The property affected by the release is owned by Plains Pipeline, LP. A "Site Location Map" is provided as Figure 1.

On July 1, 2011, Plains discovered a release had occurred at the truck station known as Lynch Station. A check meter at Lynch Station locked down, and the flow of crude oil was diverted to the Scharb Meter Sump. The sump pump was functioning normally but was not designed to operate at the capacity required under those conditions. The sump overflowed, resulting in a release of crude oil. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately twenty-three barrels (23 bbls) of crude oil was released, with six barrels (6 bbls) recovered. During initial response activities, a vacuum truck was utilized to recover free-standing fluids on the ground surface. The Form C-141 is provided as Appendix A. General photographs of the release site are provided as Appendix B.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 34, Township 20 South, Range 34 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately ninety -five feet (95') below ground surface (bgs). Based on the NMOCD ranking system, ten (10) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within 1,000 feet of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within 1,000 feet of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Scharb Meter Sump Overflow release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 1,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On July 18, 2011, following initial response activities, excavation of impacted soil commenced at the site. A Photo-Ionization Detector (PID) was used to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The excavated soil was blended on-site with non-impacted material and stockpiled, pending final disposition.

On July 26, 2011, eleven (11) soil samples (North Wall #1, North Wall #2, North Wall #3, South Wall #1, South Wall #2, South Wall #3, East Wall #1, West Wall #1, Floor #1, Floor #2, and Floor #3) were collected from the floor and sidewalls of the excavations. The soil samples were submitted to Xenco Laboratories, Inc., in Odessa, Texas, for analysis of total petroleum hydrocarbons (TPH) and/or benzene, ethylbenzene, toluene, and xylene (BTEX) concentrations using EPA Methods SW 846-8015M and SW 846-8021b, respectively. Soil sample Floor #2 was also analyzed for chloride concentrations using EPA Method 300.1. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chlorides in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix C.

Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) in soil samples North Wall #1, North Wall #2, North Wall #3, South Wall #1, South Wall #2, South Wall #3, East Wall #1, Floor #1, and Floor #2 to 455 mg/Kg in soil sample West Wall #1. Benzene concentrations were less than the laboratory MDL in all soil samples submitted. BTEX concentrations ranged from less than the laboratory MDL in soil sample Floor #3 to 0.0190 mg/Kg in soil sample West Wall #1. The chloride concentration in soil sample Floor #2 was 9.4 mg/Kg. Review of laboratory analytical results indicated TPH, Benzene, BTEX, and chloride concentrations were less than NMOCD regulatory standards in all submitted soil samples.

Two (2) five-point composite soil samples (North Stockpile and South Stockpile) were collected from the stockpiled material and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations ranged from 6,320 mg/Kg in soil sample North Stockpile to 11,200 mg/Kg in soil sample South Stockpile.

On August 11 and August 12, 2011, approximately four hundred and eight cubic yards (408 yd³) of soil represented by soil sample South Stockpile was transported to the Lazy Ace Landfarm (NMOCD Permit #NM 01-0041) for disposal.

From August 15 through August 23, 2011, soil represented by soil sample North Stockpile was treated with a water/fertilizer mix and aerated to facilitate bioremediation.

On August 23, 2011, one (1) five-point composite soil sample (Stockpile) was collected from the stockpiled material and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the TPH concentration in soil sample Stockpile was 3,460 mg/Kg.

On September 12 and September 13, 2011, soil represented by soil sample Stockpile was treated with a water/fertilizer mix and aerated to facilitate bioremediation.

On September 23, 2011, one (1) five-point composite soil sample (North Stockpile) was collected from the stockpiled material and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the TPH concentration in soil sample North Stockpile was 2,530 mg/Kg.

From October 10 through October 12, 2011, approximately two hundred cubic yards (200 yd³) of impacted soil was separated from the stockpiled material and blended on-site with non-impacted soil.

On October 12, 2011, one (1) five-point composite soil sample (North Stockpile #2) was collected from the stockpiled material and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated the TPH concentration in soil sample North Stockpile #2 was 1,580 mg/Kg.

On October 20 and October 21, 2011, approximately two hundred and seventy-six cubic yards (276 yd³) of impacted soil was transported to the Lazy Ace Landfarm for disposal.

On October 25, 2011, the stockpiled material was blended on-site with non-impacted soil. One (1) five-point composite soil sample (North Stockpile #3) was collected from the blended material and submitted to the laboratory for analysis of TPH and BTEX concentrations. Laboratory analytical results indicated the TPH concentration in soil sample North Stockpile #3 was 652 mg/Kg, and BTEX constituent concentrations were less than the appropriate laboratory MDL. Soil represented by soil sample North Stockpile #3 was deemed suitable for use as backfill material.

On November 4, 2011, a Plains representative met with a representative of the NMOCD Hobbs District Office to request permission to backfill the excavation using the blended soil. The request was approved by the NMOCD representative.

Based on laboratory analytical results, and with NMOCD approval, on November 7 through November 9, 2011, the excavation was backfilled in eighteen-inch (18") lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, final dimensions of the excavation were approximately one hundred and seventy-five feet (175') in length, ranging in width from approximately sixteen feet (16') to forty feet (40'), and ranging in depth from approximately three and one-half feet (3.5') to approximately ten feet (8.5').

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., in Odessa, Texas, for analysis of BTEX, TPH, and/or chloride concentrations using the methods described below. Soil samples were analyzed for BTEX, TPH, and/or chloride concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method SW 846-8021b
- TPH concentrations in accordance with modified EPA Method SW 846-8015M
- Chloride concentrations in accordance with EPA Method 300.1

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory analytical reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Soil samples collected from the floors and sidewalls of the Scharb Meter Sump Overflow excavation were analyzed by an NMOCD-approved laboratory, and concentrations of Benzene, BTEX, TPH, and chlorides were below the remediation action levels established for the site. Based on these laboratory analytical results, Basin recommends Plains provide the NMOCD Hobbs District Office and the BLM a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the Scharb Meter Sump Overflow release site.

6.0 LIMITATIONS

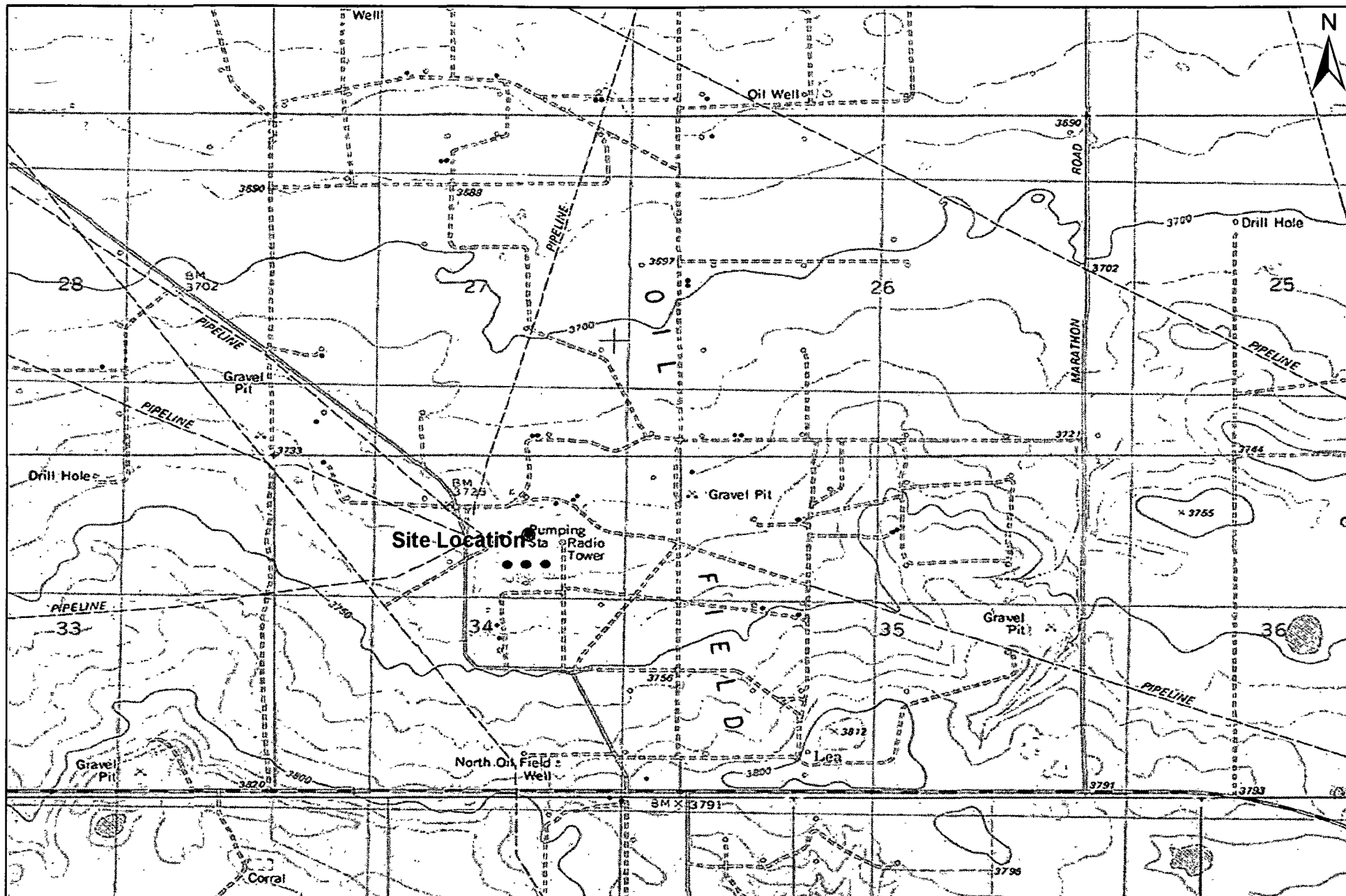
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Marketing, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Plains Marketing, LP.

7.0 DISTRIBUTION:

- Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, NM 88240
GeoffreyR.Leking@state.nm.us
- Copy 2: Jeff Dann
Plains Pipeline, LP
333 Clay Street, Suite 1600
Houston, Texas 77002
jpdann@paalp.com
- Copy 3: Jason Henry
Plains Pipeline, LP
2530 State Highway 214
Denver City, Texas 79323
jhenry@paalp.com
- Copy 4: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, New Mexico 88260

Figures



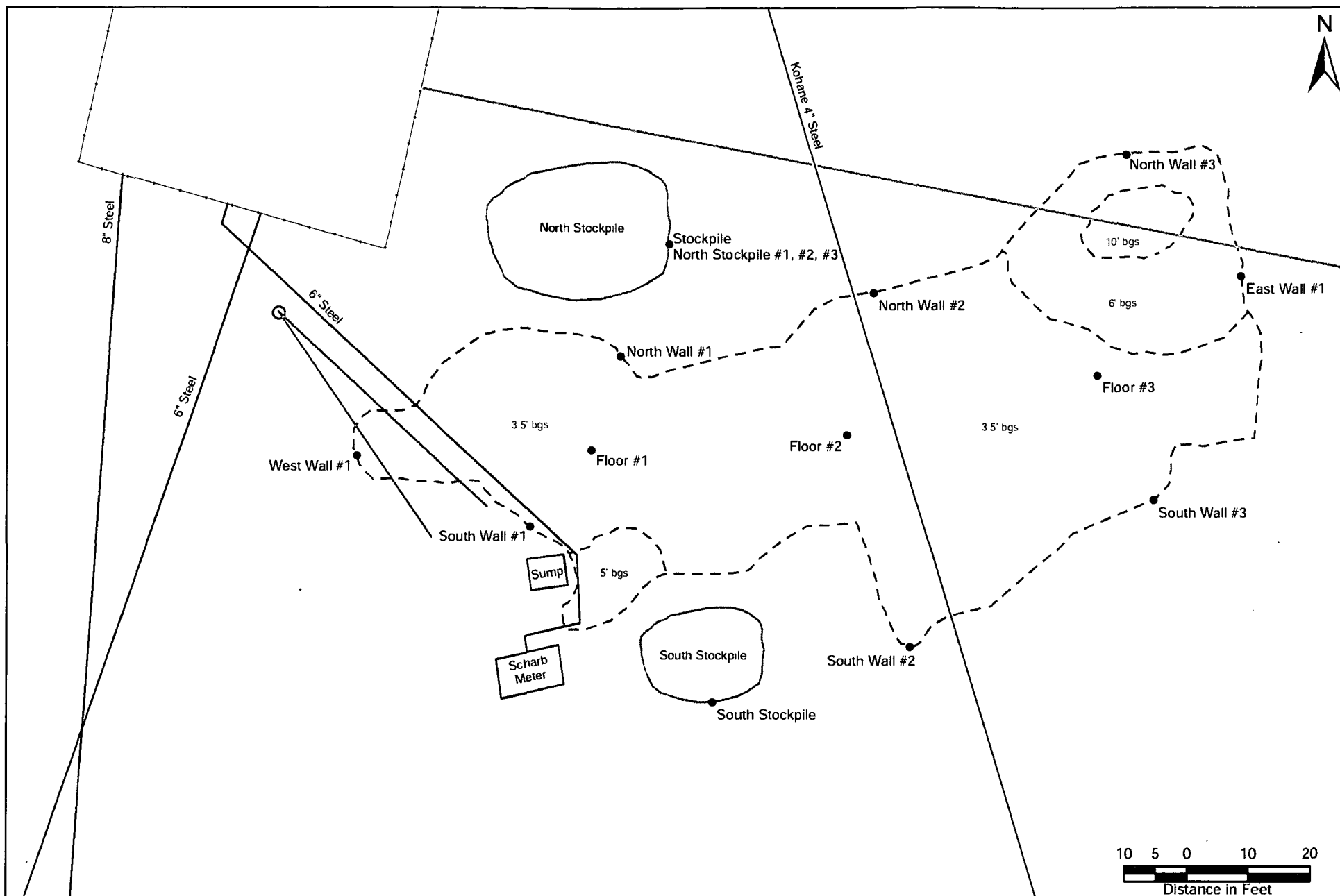
1,000 500 0 1,000 2,000
 Distance in Feet

Figure 1
 Site Location Map
 Plains Pipeline, LP
 Scharb Meter Sump Overflow
 Lea County, New Mexico
 SRS #: 2011-106
 NMOCD Ref. #: 1RP-07-11-2723



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy
 Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
November 3, 2011	Scale: 1" = 2000'



Legend:

- | | |
|--------------------|----------------------|
| - - - - Excavation | — Electrical Conduit |
| — Pipeline | — Communication Line |
| — Fence | • Sample Location |
| — Stockpile | |

Figure 2
 Site & Sample Location Map
 Plains Pipeline, LP
 Scharb Meter Sump Overflow
 Lea County, New Mexico
 SRS #: 2011-106
 NMOCD Ref. #: 1RP-07-11-2723



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy
 Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
November 3, 2011	Scale: 1" = 20'

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDES IN SOIL

PLAINS PIPELINE, L.P.
 SCHARB METER SUMP OVERFLOW
 LEA COUNTY, NEW MEXICO
 SRS #: 2011-106
 NMOCD REFERENCE #: 1RP-7-11-2723

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M			TOTAL	E 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
North Wall #1	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<15.8	<15.8	<15.8	<15.8	-
North Wall #2	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<15.2	<15.2	<15.2	<15.2	-
North Wall #3	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<19.1	<19.1	<19.1	<19.1	-
South Wall #1	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<15.5	<15.5	<15.5	<15.5	-
South Wall #2	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<16.9	<16.9	<16.9	<16.9	-
South Wall #3	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<17.2	<17.2	<17.2	<17.2	-
East Wall #1	2'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<15.8	<15.8	<15.8	<15.8	-
West Wall #1	2'	7/26/2011	In-Situ	<0.0010	<0.0021	0.00512	0.00907	0.00477	0.0138	0.0190	<15.5	436	19.1	455	-
Floor #1	3.5'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<15.5	<15.5	<15.5	<15.5	-
Floor #2	3.5'	7/26/2011	In-Situ	-	-	-	-	-	-	-	<16.0	<16.0	<16.0	<16.0	9.4
Floor #3	3.5'	7/26/2011	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<0.0021	<16.0	16.1	<16.0	16.1	-
North Stockpile	N/A	7/26/2011	In-Situ	-	-	-	-	-	-	-	1,130	5,190	<78.7	6,320	-
South Stockpile	N/A	7/26/2011	In-Situ	-	-	-	-	-	-	-	2,300	8,920	<80.2	11,200	-
Stockpile	N/A	8/23/2011	Blended	-	-	-	-	-	-	-	446	2,880	129	3,460	-
North Stockpile	N/A	9/23/2011	Blended	-	-	-	-	-	-	-	201	2,180	145	2,530	-
North Stockpile #2	N/A	10/12/2011	Blended	-	-	-	-	-	-	-	90.6	1,360	133	1,580	-
North Stockpile #3	N/A	10/25/2011	Backfill	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	44.7	491	116	652	-
NMOCD Standard				10						50				1,000	

Appendices

Appendix A

Release Notification &

Corrective Action (Form C-141)

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Plains Pipeline, LP	Contact	Jason Henry
Address	2530 State Hwy. 214, Denver City, TX 79323	Telephone No.	(575) 441-1099
Facility Name	Scharb Meter Sump Overflow	Facility Type	Crude Oil Storage

Surface Owner	Plains Pipeline, L.P.	Mineral Owner		Lease No.	
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	34	20S	34E					Lea

Latitude N 32.5334° Longitude W 103.5457°

NATURE OF RELEASE

GW=90'

Type of Release	Crude Oil	Volume of Release	23 bbls	Volume Recovered	6 bbls
Source of Release	Sump overflow	Date and Hour of Occurrence	07/01/2011 @ 04:30	Date and Hour of Discovery	07/01/2011 @ 04:30
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required		If YES, To Whom? Verbal notification to Geoff Leking (Voice mail)		
By Whom?	Jason Henry	Date and Hour	07/01/2011 @ 14:00		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES, Volume Impacting the Watercourse.		

If a Watercourse was Impacted, Describe Fully.*

HOBBS OGD

JUL 11 2011

Describe Cause of Problem and Remedial Action Taken.*

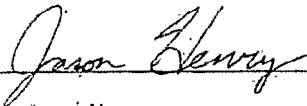
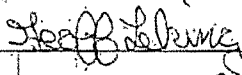
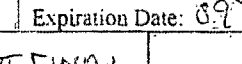
RECEIVED

Check meter at Lynch Station locked down and relieved to the sump. The sump was operating but couldn't keep up and the sump overflowed. A vacuum truck was utilized to recover the crude oil that pooled on the surface.

Describe Area Affected and Cleanup Action Taken.*

The impacted surface soil and caliche will be excavated, stockpiled, and remediated. Confirmation samples will be collected from the excavated area and the stockpile(s).

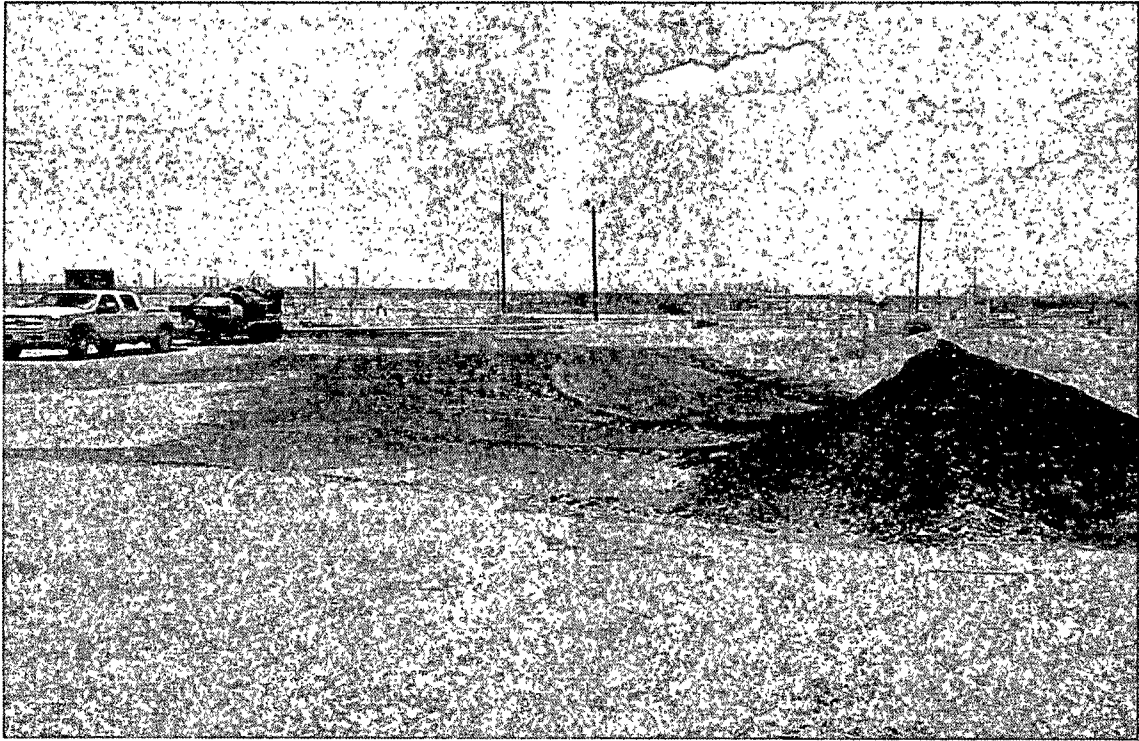
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Jason Henry		Approved by: ENV. ENGINEER:  District Supervisor: 	
Title: Remediation Coordinator		Approval Date: 07/11/11	Expiration Date: 09/11/11
E-mail Address: jhenry@paalp.com		Conditions of Approval: SUBMIT FINAL	
Date: 07/11/2011	Phone: (575) 441-1099	C-141 BY 09/11/11	
		Attached <input type="checkbox"/> IRP-07-11-2723	

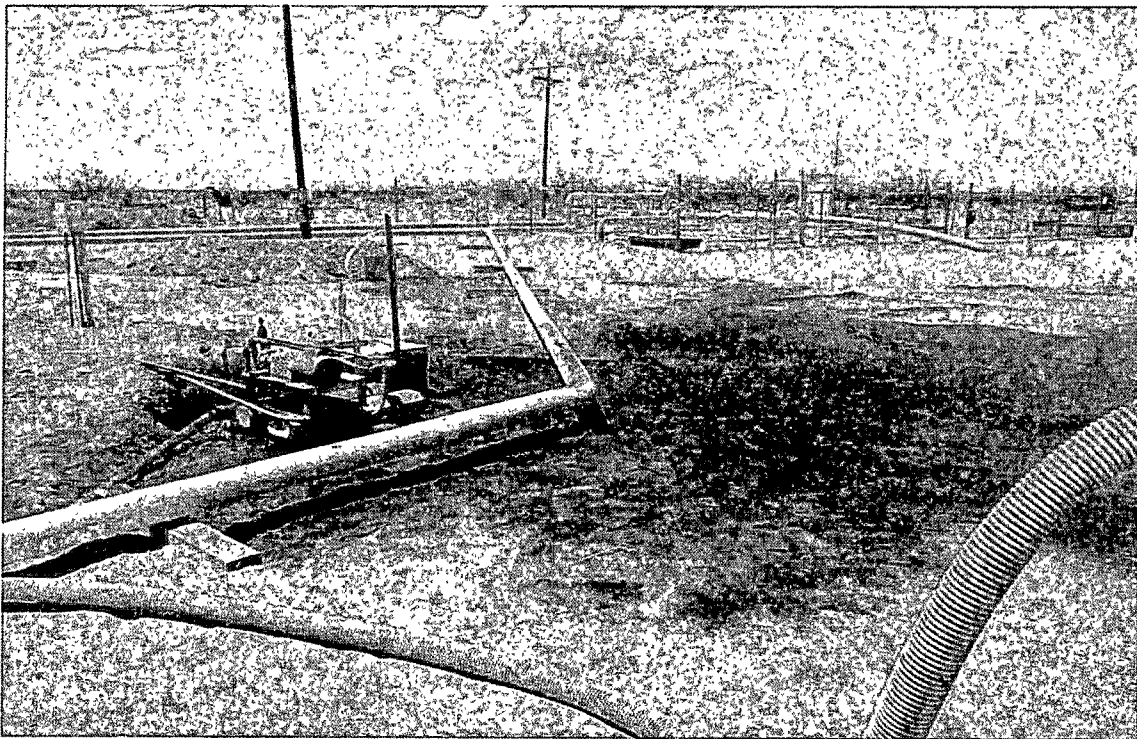
* Attach Additional Sheets If Necessary

Appendix B

Photographs



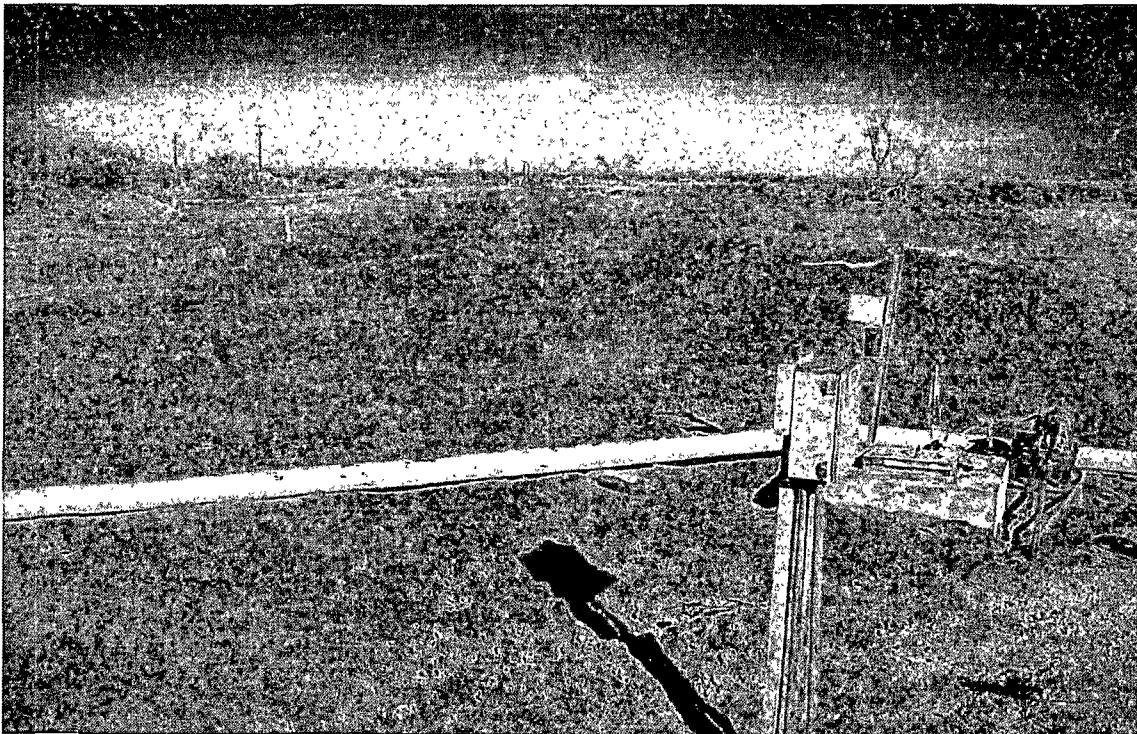
Scharb Meter Sump Overflow - Release Site



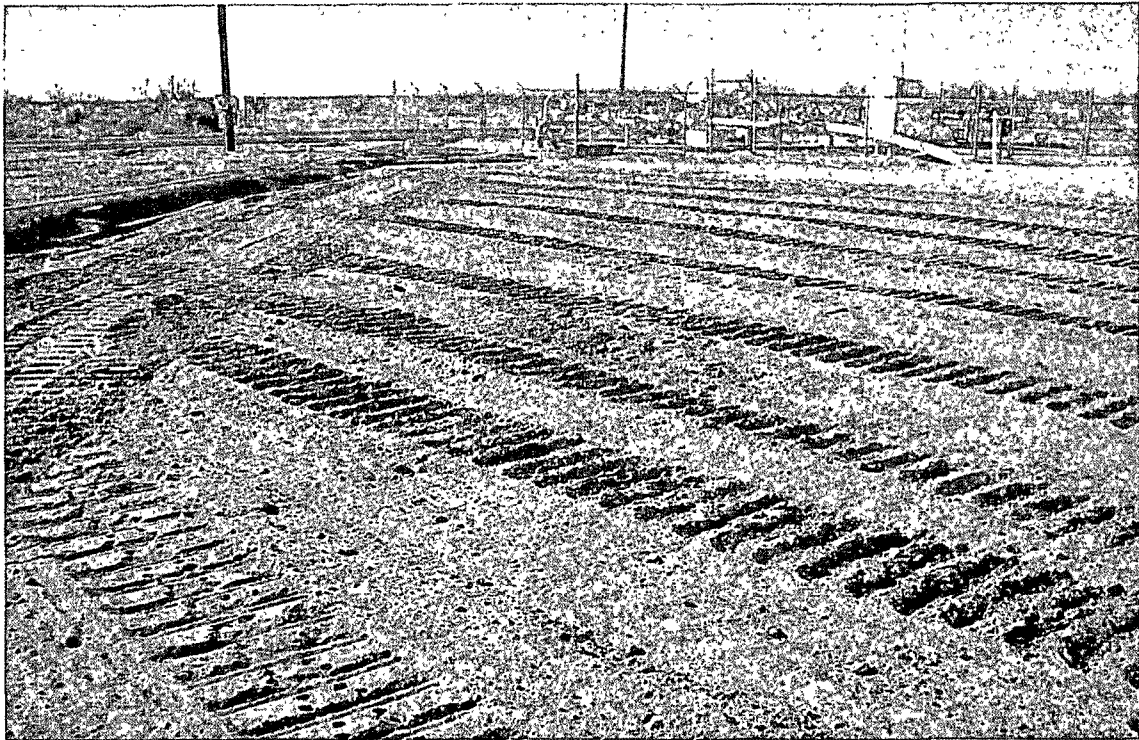
Scharb Meter Sump Overflow - Release Site



Scharb Meter Sump Overflow - Excavation (Following Backfill)



Scharb Meter Sump Overflow - Release Site (Following Remediation)



Scharb Meter Sump Overflow - Release Site (Following Remediation)

Appendix C

Laboratory Analytical Reports

Analytical Report 424398
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Meter Sump

2011-106

10-AUG-11

Collected By: Client



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Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
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10-AUG-11

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

Reference: XENCO Report No: **424398**
Scharb Meter Sump
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 424398. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 424398 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 424398



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Meter Sump

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Wall # 1	S	07-26-11 14:00		424398-001
North Wall # 3	S	07-26-11 14:15		424398-002
North Wall # 2	S	07-26-11 14:30		424398-003
North Wall # 1	S	07-26-11 14:45		424398-004
West Wall # 1	S	07-26-11 15:00		424398-005
South Wall # 3	S	07-26-11 15:15		424398-006
South Wall # 2	S	07-26-11 15:30		424398-007
South Wall # 1	S	07-26-11 15:45		424398-008
Floor # 3	S	07-26-11 16:00		424398-009
Floor # 2	S	07-26-11 16:15		424398-010
Floor # 1	S	07-26-11 16:30		424398-011
South Stockpile	S	07-26-11 16:35		424398-012
North Stockpile	S	07-26-11 16:40		424398-013



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Meter Sump



Project ID: 2011-106

Work Order Number: 424398

Report Date: 10-AUG-11

Date Received: 07/27/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-866813 BTEX by EPA 8021

SW8021BM

Batch 866813, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 424398-009, -005.

The Laboratory Control Sample for Toluene, Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits



Certificate of Analysis Summary 424398

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Meter Sump



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Wed Jul-27-11 11:30 am


Report Date: 10-AUG-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	424398-001	424398-002	424398-003	424398-004	424398-005	424398-006
	Field Id:	East Wall # 1	North Wall # 3	North Wall # 2	North Wall # 1	West Wall # 1	South Wall # 3
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jul-26-11 14:00	Jul-26-11 14:15	Jul-26-11 14:30	Jul-26-11 14:45	Jul-26-11 15:00	Jul-26-11 15:15
BTEX by EPA 8021	Extracted:					Aug-09-11 11:05	
	Analyzed:					Aug-09-11 13:34	
	Units/RL:					mg/kg RL	
						ND 0.00103	
Benzene						ND 0.00207	
Toluene						0.00512 0.00103	
Ethylbenzene						0.00907 0.00207	
m_p-Xylenes						0.00477 0.00103	
o-Xylene						0.0138 0.00103	
Xylenes, Total						0.0190 0.00103	
Total BTEX							
Percent Moisture	Extracted:						
	Analyzed:	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		4.36 1.00	21.5 1.00	1.16 1.00	4.39 1.00	3.55 1.00	13.3 1.00
TPH by SW8015 Mod	Extracted:	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45
	Analyzed:	Jul-27-11 16:01	Jul-27-11 16:29	Jul-27-11 16:57	Jul-27-11 17:25	Jul-27-11 17:54	Jul-27-11 18:22
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 15.8	ND 19.1	ND 15.2	ND 15.8	ND 15.5	ND 17.2
C12-C28 Diesel Range Hydrocarbons		ND 15.8	ND 19.1	ND 15.2	ND 15.8	436 15.5	ND 17.2
C28-C35 Oil Range Hydrocarbons		ND 15.8	ND 19.1	ND 15.2	ND 15.8	19.1 15.5	ND 17.2
Total TPH		ND 15.8	ND 19.1	ND 15.2	ND 15.8	455 15.5	ND 17.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron II
Odessa Laboratory Manager



Certificate of Analysis Summary 424398

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Scharb Meter Sump

Date Received in Lab: Wed Jul-27-11 11:30 am


Report Date: 10-AUG-11

Project Manager: Brent Barron II

<i>Analysis Requested</i>	<i>Lab Id:</i>	424398-007	424398-008	424398-009	424398-010	424398-011	424398-012
	<i>Field Id:</i>	South Wall # 2	South Wall # 1	Floor # 3	Floor # 2	Floor # 1	South Stockpile
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-26-11 15:30	Jul-26-11 15:45	Jul-26-11 16:00	Jul-26-11 16:15	Jul-26-11 16:30	Jul-26-11 16:35
BTEX by EPA 8021	<i>Extracted:</i>			Aug-09-11 11:05			
	<i>Analyzed:</i>			Aug-09-11 13:58			
	<i>Units/RL:</i>			mg/kg RL			
Benzene				ND 0.00105			
Toluene				ND 0.00211			
Ethylbenzene				ND 0.00105			
m_p-Xylenes				ND 0.00211			
o-Xylene				ND 0.00105			
Xylenes, Total				ND 0.00105			
Total BTEX				ND 0.00105			
Inorganic Anions In Soil by E300	<i>Extracted:</i>				Jul-27-11 16:46		Jul-27-11 16:46
	<i>Analyzed:</i>						
	<i>Units/RL:</i>				mg/kg RL		mg/kg RL
Chloride					9.40 5.34		9.51 5.34
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00	Jul-27-11 14:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		11.6 1.00	2.94 1.00	5.95 1.00	6.40 1.00	3.24 1.00	6.43 1.00
TPH by SW8015 Mod	<i>Extracted:</i>	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45	Jul-27-11 14:45
	<i>Analyzed:</i>	Jul-27-11 18:50	Jul-28-11 08:55	Jul-28-11 09:22	Jul-28-11 09:49	Jul-28-11 10:17	Jul-28-11 10:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 16.9	ND 15.5	ND 16.0	ND 16.0	ND 15.5	2300 80.2
C12-C28 Diesel Range Hydrocarbons		ND 16.9	ND 15.5	16.1 16.0	ND 16.0	ND 15.5	8920 80.2
C28-C35 Oil Range Hydrocarbons		ND 16.9	ND 15.5	ND 16.0	ND 16.0	ND 15.5	ND 80.2
Total TPH		ND 16.9	ND 15.5	16.1 16.0	ND 16.0	ND 15.5	11200 80.2

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Brent Barron II
Odessa Laboratory Manager



Certificate of Analysis Summary 424398

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Scharb Meter Sump

Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Wed Jul-27-11 11:30 am


Report Date: 10-AUG-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	424398-013					
	Field Id:	North Stockpile					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Jul-26-11 16:40					
Inorganic Anions In Soil by E300	Extracted:						
	Analyzed:	Jul-27-11 16:46					
	Units/RL:	mg/kg RL					
Chloride		11.0 5.27					
Percent Moisture	Extracted:						
	Analyzed:	Jul-27-11 14:00					
	Units/RL:	% RL					
Percent Moisture		5.05 1.00					
TPH by SW8015 Mod	Extracted:	Jul-27-11 14:45					
	Analyzed:	Jul-28-11 11:12					
	Units/RL:	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		1130 78.7					
C12-C28 Diesel Range Hydrocarbons		5190 78.7					
C28-C35 Oil Range Hydrocarbons		ND 78.7					
Total TPH		6320 78.7					

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Brent Barron II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection
- PQL** Practical Quantitation Limit **SQL** Sample Quantitation Limit **LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- + Outside XENCO's scope of NELAC Accreditation.

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Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 424398,

Project ID: 2011-106

Lab Batch #: 865532

Sample: 424398-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 16:01

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	101	99	70-135	
o-Terphenyl	49.6	50.3	99	70-135	

Lab Batch #: 865532

Sample: 424398-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 16:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 865532

Sample: 424398-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 16:57

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	133	100	133	70-135	
o-Terphenyl	65.6	50.2	131	70-135	

Lab Batch #: 865532

Sample: 424398-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 17:25

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	54.7	50.2	109	70-135	

Lab Batch #: 865532

Sample: 424398-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 17:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.6	109	70-135	
o-Terphenyl	54.3	49.8	109	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 424398,

Project ID: 2011-106

Lab Batch #: 865532

Sample: 424398-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 18:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.7	109	70-135	
o-Terphenyl	54.2	49.9	109	70-135	

Lab Batch #: 865532

Sample: 424398-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 18:50

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.8	113	70-135	
o-Terphenyl	55.4	49.9	111	70-135	

Lab Batch #: 865532

Sample: 424398-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 08:55

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	51.4	50.1	103	70-135	

Lab Batch #: 865532

Sample: 424398-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 09:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.3	100	96	70-135	
o-Terphenyl	47.7	50.2	95	70-135	

Lab Batch #: 865532

Sample: 424398-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 09:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 424398,

Project ID: 2011-106

Lab Batch #: 865532

Sample: 424398-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 10:17

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.7	106	70-135	
o-Terphenyl	51.7	49.9	104	70-135	

Lab Batch #: 865532

Sample: 424398-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 10:44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	51.7	50.1	103	70-135	

Lab Batch #: 865532

Sample: 424398-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/28/11 11:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.6	122	70-135	
o-Terphenyl	35.7	49.8	72	70-135	

Lab Batch #: 866813

Sample: 424398-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/09/11 13:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 866813

Sample: 424398-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/09/11 13:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 424398,

Project ID: 2011-106

Lab Batch #: 865532

Sample: 608891-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/27/11 13:39

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.7	107	70-135	
o-Terphenyl	53.2	49.9	107	70-135	

Lab Batch #: 866813

Sample: 609590-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/09/11 13:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 865532

Sample: 608891-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/27/11 12:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	101	107	70-135	
o-Terphenyl	50.1	50.3	100	70-135	

Lab Batch #: 866813

Sample: 609590-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/09/11 11:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 865532

Sample: 608891-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 07/27/11 13:11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	47.6	50.2	95	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 424398,

Project ID: 2011-106

Lab Batch #: 866813

Sample: 609590-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/09/11 12:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 866813

Sample: 424398-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/09/11 17:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 866813

Sample: 424398-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/09/11 18:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 865532

Sample: 424335-001 D / MD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 07/27/11 15:04

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	99.3	99.8	99	70-135	
o-Terphenyl	57.6	49.9	115	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 424398

Analyst: ASA

Date Prepared: 08/09/2011

Project ID: 2011-106

Date Analyzed: 08/09/2011

Lab Batch ID: 866813

Sample: 609590-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00100	0.100	0.117	117	0.100	0.114	114	3	70-130	35	
Toluene	<0.00200	0.100	0.103	103	0.100	0.101	101	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.114	114	0.100	0.110	110	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.232	116	0.200	0.222	111	4	70-135	35	
o-Xylene	<0.00100	0.100	0.107	107	0.100	0.102	102	5	71-133	35	

Analyst: BRB

Date Prepared: 07/27/2011

Date Analyzed: 07/27/2011

Lab Batch ID: 865561

Sample: 865561-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions In Soil by E300											
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<1.00	20.0	21.2	106	20.0	21.3	107	0	75-125	20	

Relative Percent Difference RPD = $200 * (C - F) / (C + F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 424398

Analyst: BEV

Date Prepared: 07/27/2011

Project ID: 2011-106

Date Analyzed: 07/27/2011

Lab Batch ID: 865532

Sample: 608891-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	1030	102	1000	959	96	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.1	1010	930	92	1000	870	87	7	70-135	35	

Relative Percent Difference RPD = $200 * (C - F) / (C + F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Scharb Meter Sump

Work Order #: 424398

Lab Batch #: 865561

Date Analyzed: 07/27/2011

QC- Sample ID: 424335-001 S

Reporting Units: mg/kg

Project ID: 2011-106

Analyst: BRB

Date Prepared: 07/27/2011

Batch #: 1

Matrix: Soil

Inorganic Anions by EPA 300		MATRIX / MATRIX SPIKE RECOVERY STUDY				
Analytes		Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R
Chloride		15.0	103	117	99	75-125

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 424398

Project ID: 2011-106

Lab Batch ID: 866813

QC- Sample ID: 424398-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/09/2011

Date Prepared: 08/09/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00103	0.103	0.0860	83	0.103	0.0831	81	3	70-130	35	
Toluene	<0.00207	0.103	0.0701	68	0.103	0.0663	64	6	70-130	35	X
Ethylbenzene	0.00512	0.103	0.0721	65	0.103	0.0670	60	7	71-129	35	X
m_p-Xylenes	0.00907	0.207	0.139	63	0.207	0.128	57	8	70-135	35	X
o-Xylene	0.00477	0.103	0.0630	57	0.103	0.0567	50	11	71-133	35	X

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

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

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

Project Name: Scharb Meter Sump

Work Order #: 424398

Lab Batch #: 865561

Project ID: 2011-106

Date Analyzed: 07/27/2011 14:07

Date Prepared: 07/27/2011

Analyst: BRB

QC- Sample ID: 424335-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	15.0	15.6	4	20	

Lab Batch #: 865638

Date Analyzed: 07/27/2011 14:00

Date Prepared: 07/27/2011

Analyst: WRU

QC- Sample ID: 424398-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	4.36	4.56	4	20	

Lab Batch #: 865532

Date Analyzed: 07/27/2011 15:04

Date Prepared: 07/27/2011

Analyst: BEV

QC- Sample ID: 424335-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TPH by SW8015 Mod	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
C6-C12 Gasoline Range Hydrocarbons	1690	1600	5	35	
C12-C28 Diesel Range Hydrocarbons	13800	13200	4	35	
C28-C35 Oil Range Hydrocarbons	<76.9	<76.9	0	35	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Scharb Meter Sump

Project #. 2011-106

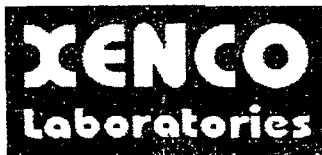
Project Loc: Lea County, NM

PO #: PAA-J. Henry

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: bjarguijo@basinenv.com

Final 1.001

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-InClient: PlainsDate/Time: 7-27-11 11:30Lab ID #: 424398Initials: LM**Sample Receipt Checklist**

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>5.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 426482
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Meter Sump

2011-106

31-AUG-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



31-AUG-11

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

Reference: XENCO Report No: **426482**
Scharb Meter Sump
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 426482. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 426482 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 426482



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Meter Sump

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile	S	08-23-11 14:40		426482-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Meter Sump



Project ID: 2011-106

Work Order Number: 426482

Report Date: 31-AUG-11

Date Received: 08/25/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 426482

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Scharb Meter Sump

Date Received in Lab: Thu Aug-25-11 11:10 am


Report Date: 31-AUG-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 426482-001 Field Id: Stockpile Depth: Matrix: SOIL Sampled: Aug-23-11 14:40					
Percent Moisture	Extracted: Analyzed: Aug-25-11 14:30 Units/RL: % RL					
Percent Moisture	7.17 1.00					
TPH by SW8015 Mod	Extracted: Aug-25-11 16:45 Analyzed: Aug-27-11 05:34 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	446 16.2					
C12-C28 Diesel Range Hydrocarbons	2880 16.2					
C28-C35 Oil Range Hydrocarbons	129 16.2					
Total TPH	3460 16.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi


Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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 12600 West I-20 East, Odessa, TX 79765
 6017 Financial Drive, Norcross, GA 30071
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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 426482,

Project ID: 2011-106

Lab Batch #: 868658

Sample: 426482-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/27/11 05:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	100	99	70-135	
o-Terphenyl	54.4	50.0	109	70-135	

Lab Batch #: 868658

Sample: 610633-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/26/11 18:46

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.2	100	87	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 868658

Sample: 610633-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/26/11 17:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	100	90	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 868658

Sample: 610633-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 08/26/11 18:14

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.7	100	82	70-135	
o-Terphenyl	41.1	50.0	82	70-135	

Lab Batch #: 868658

Sample: 426323-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/27/11 06:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	100	91	70-135	
o-Terphenyl	46.7	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 426482,

Project ID: 2011-106

Lab Batch #: 868658

Sample: 426323-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 08/27/11 07:08

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.6	100	85	70-135	
o-Terphenyl	44.0	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 426482

Analyst: BBH

Date Prepared: 08/25/2011

Project ID: 2011-106

Date Analyzed: 08/26/2011

Lab Batch ID: 868658

Sample: 610633-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	819	82	1000	772	77	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	945	95	1000	863	86	9	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Scharb Meter Sump

Work Order # 426482

Project ID: 2011-106

Lab Batch ID: 868658

QC- Sample ID: 426323-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/27/2011

Date Prepared: 08/25/2011

Analyst: BBH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<16.8	1120	934	83	1120	888	79	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.8	1120	965	86	1120	935	83	3	70-135	35	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$
Relative Percent Difference RPD = $200 \times [(C-F)/(C+F)]$

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

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



Sample Duplicate Recovery



Project Name: Scharb Meter Sump

Work Order # 426482

Lab Batch #: 868397

Project ID: 2011-106

Date Analyzed: 08/25/2011 14:30

Date Prepared: 08/25/2011

Analyst: BRB

QC- Sample ID: 426477-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	<1.00	<1.00	0	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: **Scharb Meter Sump**

Project #: 2011-106

Project Loc: Lea County, NM

PO #: PAA-J. Henry

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: bjarquijo@basinenv.com

[illegible]



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Plains
Date/Time: 8/25/11 11:10
Lab ID #: 426482
Initials: AH

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>56</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 428215
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Meter Sump

2011-106

29-SEP-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

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Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



29-SEP-11

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

Reference: XENCO Report No: **428215**
Scharb Meter Sump
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 428215. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 428215 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 428215



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Meter Sump

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Stockpile	S	09-23-11 08:45		428215-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Meter Sump



Project ID: 2011-106

Work Order Number: 428215

Report Date: 29-SEP-11

Date Received: 09/23/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 428215

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Scharb Meter Sump

Date Received in Lab: Fri Sep-23-11 12:09 pm

Report Date: 29-SEP-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 428215-001 Field Id: North Stockpile Depth: Matrix: SOIL Sampled: Sep-23-11 08:45					
Percent Moisture	Extracted: Analyzed: Sep-23-11 15:25 Units/RL: % RL					
Percent Moisture	7.37 1.00					
TPH By SW8015 Mod	Extracted: Sep-23-11 15:40 Analyzed: Sep-27-11 20:52 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	201 16.2					
C12-C28 Diesel Range Hydrocarbons	2180 16.2					
C28-C35 Oil Range Hydrocarbons	145 16.2					
Total TPH	2530 16.2					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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 5757 NW 158th St, Miami Lakes, FL 33014
 12600 West I-20 East, Odessa, TX 79765
 6017 Financial Drive, Norcross, GA 30071
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Phone	Fax
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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 428215,

Project ID: 2011-106

Lab Batch #: 871071

Sample: 428215-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/27/11 20:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.8	123	70-135	
o-Terphenyl	55.9	49.9	112	70-135	

Lab Batch #: 871071

Sample: 611983-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/11 17:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	49.6	50.1	99	70-135	

Lab Batch #: 871071

Sample: 611983-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/11 17:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 871071

Sample: 611983-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 09/27/11 17:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	101	109	70-135	
o-Terphenyl	48.4	50.3	96	70-135	

Lab Batch #: 871071

Sample: 428218-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/28/11 02:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	50.7	50.1	101	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 428215,

Project ID: 2011-106

Lab Batch #: 871071

Sample: 428218-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 09/28/11 02:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	100	132	70-135	
o-Terphenyl	53.1	50.2	106	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 428215

Analyst: BBH

Date Prepared: 09/23/2011

Project ID: 2011-106

Date Analyzed: 09/27/2011

Lab Batch ID: 871071

Sample: 611983-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	999	860	86	1010	861	85	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	941	94	1010	935	93	1	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 428215

Project ID: 2011-106

Lab Batch ID: 871071

QC- Sample ID: 428218-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 09/28/2011

Date Prepared: 09/23/2011

Analyst: BBH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<17.6	1170	1080	92	1170	1190	102	10	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<17.6	1170	1160	99	1170	1240	106	7	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Scharb Meter Sump

Work Order #: 428215

Lab Batch #: 870853

Project ID: 2011-106

Date Analyzed: 09/23/2011 10:30

Date Prepared: 09/23/2011

Analyst: BRB

QC- Sample ID: 428170-021 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	3.50	3.70	6	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: **Scharb Meter Sump**

Project #: 2011-106

Project Loc: Lea County, NM

PO #: PAA-J. Henry

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: bjarguijo@basinenv.com

Final 1.000



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / Plains
Date/Time: 9/23/11 12:09
Lab ID #: 428215
Initials: AE

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.0</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 429403

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Meter Sump

2011-106

19-OCT-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



19-OCT-11

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

Reference: XENCO Report No: **429403**
Scharb Meter Sump
Project Address: Lea County, New Mexico

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 429403. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 429403 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 429403



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Meter Sump

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Stockpile #2	S	10-12-11 10:00		429403-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Meter Sump



Project ID: 2011-106

Work Order Number: 429403

Report Date: 19-OCT-11

Date Received: 10/12/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-872539 TPH by SW8015 Mod

SW8015MOD_NM

Batch 872539, 1-Chlorooctane recovered below QC limits Data not confirmed by re-analysis.

Samples affected are: 612809-1-BLK.



Certificate of Analysis Summary 429403

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, New Mexico

Project Name: Scharb Meter Sump

Date Received in Lab: Wed Oct-12-11 03:10 pm

Report Date: 19-OCT-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id: 429403-001 Field Id: North Stockpile #2 Depth: Matrix: SOIL Sampled: Oct-12-11 10:00					
Percent Moisture	Extracted: Analyzed: Oct-13-11 13:00 Units/RL: % RL					
Percent Moisture	3.10 1.00					
TPH by SW8015 Mod	Extracted: Oct-13-11 14:10 Analyzed: Oct-15-11 19:30 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	90.6 15.5					
C12-C28 Diesel Range Hydrocarbons	1360 15.5					
C28-C35 Oil Range Hydrocarbons	133 15.5					
Total TPH	1580 15.5					

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Brent Barron II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection
- PQL** Practical Quantitation Limit **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation
- DL** Method Detection Limit
- NC** Non-Calculable
- +** Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 429403,

Project ID: 2011-106

Lab Batch #: 872539

Sample: 429403-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/15/11 19:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.7	100	85	70-135	
o-Terphenyl	49.8	50.0	100	70-135	

Lab Batch #: 872539

Sample: 612809-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/15/11 18:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	67.2	99.5	68	70-135	*
o-Terphenyl	42.9	49.8	86	70-135	

Lab Batch #: 872539

Sample: 612809-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/15/11 17:28

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.8	99.8	74	70-135	
o-Terphenyl	38.1	49.9	76	70-135	

Lab Batch #: 872539

Sample: 612809-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/15/11 17:52

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.6	100	76	70-135	
o-Terphenyl	39.7	50.2	79	70-135	

Lab Batch #: 872539

Sample: 429429-008 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/16/11 03:57

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.7	101	91	70-135	
o-Terphenyl	44.5	50.3	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 429403,

Project ID: 2011-106

Lab Batch #: 872539

Sample: 429429-008 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/16/11 04:24

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.4	100	96	70-135	
o-Terphenyl	48.6	50.1	97	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 429403

Analyst: BBH

Date Prepared: 10/13/2011

Project ID: 2011-106

Date Analyzed: 10/15/2011

Lab Batch ID: 872539

Sample: 612809-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	998	707	71	1000	704	70	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	998	800	80	1000	758	76	5	70-135	35	

Relative Percent Difference RPD = $200 * (C-F) / (C+F)$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 429403

Project ID: 2011-106

Lab Batch ID: 872539

QC- Sample ID: 429429-008 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/16/2011

Date Prepared: 10/13/2011

Analyst: BBH

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<18.0	1200	961	80	1190	1010	85	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<18.0	1200	1090	91	1190	1210	102	10	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Scharb Meter Sump

Work Order #: 429403

Lab Batch #: 872302

Project ID: 2011-106

Date Analyzed: 10/13/2011 12:45

Date Prepared: 10/13/2011

Analyst: BRB

QC- Sample ID: 429439-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.06	9.03	0	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**12600 West I-20 East
Odessa, Texas 79765**

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

Project Manager: Ben Arguijo

Project Name: Scharb Meter Sump

Company Name Basin Environmental Service Technologies, LLC

Project #: 2011-106

Company Address: P.O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: PAA-J. Henry

Telephone No: (575)396-2378

Fax No: **(575) 396-1429**

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Shannon Beor

e-mail: bjarguijo@basinenv.com

[illegible]



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Plains
Date/Time: 10/12/11 3:10
Lab ID #: 429403
Initials: -/H

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>15</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 430186
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Meter Sump

2011-106

27-OCT-11

Collected By: Client



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



27-OCT-11

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

Reference: XENCO Report No: **430186**
Scharb Meter Sump
Project Address: Lea County, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 430186. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

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

Respectfully,

Brent Barron II

Odessa Laboratory Manager

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Sample Cross Reference 430186



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Meter Sump

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North Stockpile # 3	S	10-25-11 12:00		430186-001



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Meter Sump



Project ID: 2011-106

Work Order Number: 430186

Report Date: 27-OCT-11

Date Received: 10/25/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-873193 TPH by SW8015 Mod

SW8015MOD_NM

Batch 873193, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 430186-001.

Batch: LBA-873287 BTEX by EPA 8021

SW8021BM

Batch 873287, Benzene, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 430186-001.

The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits



Certificate of Analysis Summary 430186

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2011-106

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Scharb Meter Sump

Date Received in Lab: Tue Oct-25-11 04:02 pm

Report Date: 27-OCT-11

Project Manager: Brent Barron II

Analysis Requested	Lab Id:	430186-001				
	Field Id:	North Stockpile # 3				
	Depth:					
	Matrix:	SOIL				
	Sampled:	Oct-25-11 12:00				
BTEX by EPA 8021	Extracted:	Oct-26-11 15:45				
	Analyzed:	Oct-27-11 02:20				
	Units/RL:	mg/kg RL				
Benzene		ND 0.00101				
Toluene		ND 0.00201				
Ethylbenzene		ND 0.00101				
m_p-Xylenes		ND 0.00201				
o-Xylene		ND 0.00101				
Xylenes, Total		ND 0.00101				
Total BTEX		ND 0.00101				
Percent Moisture	Extracted:					
	Analyzed:	Oct-25-11 16:35				
	Units/RL:	% RL				
Percent Moisture		ND 1.00				
TPH by SW8015 Mod	Extracted:	Oct-25-11 16:30				
	Analyzed:	Oct-26-11 04:54				
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		44.7 15.1				
C12-C28 Diesel Range Hydrocarbons		491 15.1				
C28-C35 Oil Range Hydrocarbons		116 15.1				
Total TPH		652 15.1				

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Brent Barron II
Odessa Laboratory Manager

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- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

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(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 430186,

Project ID: 2011-106

Lab Batch #: 873193

Sample: 430186-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/26/11 04:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	69.6	49.9	139	70-135	*

Lab Batch #: 873287

Sample: 430186-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/27/11 02:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 873193

Sample: 613197-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/11 21:45

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.8	100	89	70-135	
o-Terphenyl	53.6	50.1	107	70-135	

Lab Batch #: 873287

Sample: 613245-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/26/11 22:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 873193

Sample: 613197-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/11 20:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	62.4	49.9	125	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 430186,

Project ID: 2011-106

Lab Batch #: 873287

Sample: 613245-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/26/11 21:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 873193

Sample: 613197-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/25/11 21:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	99.7	102	70-135	
o-Terphenyl	54.5	49.9	109	70-135	

Lab Batch #: 873287

Sample: 613245-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 10/26/11 21:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 873193

Sample: 430118-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/26/11 02:22

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	121	99.8	121	70-135	
o-Terphenyl	66.5	49.9	133	70-135	

Lab Batch #: 873287

Sample: 430158-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/27/11 02:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Scharb Meter Sump

Work Orders : 430186,

Project ID: 2011-106

Lab Batch #: 873193

Sample: 430118-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/26/11 02:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.4	50.1	117	70-135	

Lab Batch #: 873287

Sample: 430158-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 10/27/11 03:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

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



BS / BSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 430186

Analyst: ASA

Date Prepared: 10/26/2011

Project ID: 2011-106

Date Analyzed: 10/26/2011

Lab Batch ID: 873287

Sample: 613245-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00100	0.100	0.105	105	0.100	0.103	103	2	70-130	35	
Toluene	<0.00200	0.100	0.107	107	0.100	0.105	105	2	70-130	35	
Ethylbenzene	<0.00100	0.100	0.111	111	0.100	0.109	109	2	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.222	111	0.200	0.219	110	1	70-135	35	
o-Xylene	<0.00100	0.100	0.110	110	0.100	0.109	109	1	71-133	35	

Analyst: ASA

Date Prepared: 10/25/2011

Date Analyzed: 10/25/2011

Lab Batch ID: 873193

Sample: 613197-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	998	775	78	997	737	74	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	998	1120	112	997	963	97	15	70-135	35	

Relative Percent Difference RPD = $200 \times (C-F) / (C+F)$

Blank Spike Recovery [D] = $100 \times (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 \times (F) / [E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Scharb Meter Sump

Work Order #: 430186

Project ID: 2011-106

Lab Batch ID: 873287

QC- Sample ID: 430158-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/27/2011

Date Prepared: 10/26/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00111	0.111	0.0744	67	0.111	0.0768	69	3	70-130	35	X
Toluene	<0.00222	0.111	0.0700	63	0.111	0.0719	65	3	70-130	35	X
Ethylbenzene	<0.00111	0.111	0.0662	60	0.111	0.0694	63	5	71-129	35	X
m_p-Xylenes	<0.00222	0.222	0.126	57	0.222	0.133	60	5	70-135	35	X
o-Xylene	<0.00111	0.111	0.0589	53	0.111	0.0629	57	7	71-133	35	X

Lab Batch ID: 873193

QC- Sample ID: 430118-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 10/26/2011

Date Prepared: 10/25/2011

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	42.0	1020	869	81	1020	856	80	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	289	1020	1660	134	1020	1590	128	4	70-135	35	

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

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

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



Sample Duplicate Recovery



Project Name: Scharb Meter Sump

Work Order #: 430186

Lab Batch #: 873159

Project ID: 2011-106

Date Analyzed: 10/25/2011 15:50

Date Prepared: 10/25/2011

Analyst: BRB

QC- Sample ID: 430159-004 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.74	9.82	1	20	

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: **Scharb Meter Sump**

Project #: 2011-106

Project Loc: Lea County, NM

PO #: PAA-J. Henry

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: bjarguijo@basinenv.com

[illegible]



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist
Document No.: SYS-SRC
Revision/Date: No. 01, 5/27/2010
Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / Plains
Date/Time: 10.25.11
Lab ID #: 430186
Initials: AE

Sample Receipt Checklist

1. Samples on Ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 4.0 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis