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2014 ANNUAL MONITORING REPORT

DCP PLANT TO LEA STATION 6-INCH SECTION 31
Unit Letter "K" (NESW), Section 31, Township 20 South, Range 37 East
Latitude 32.52733° North, Longitude 103.2906° West
Lea County, New Mexico
Plains SRS #: 2009-084
NMOCD Reference #: 1RP-2166

Prepared For:



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

Prepared By:

Basin Environmental Service Technologies, LLC P. O. Box 301 Lovington, New Mexico 88260

March 2015

Ben J. Arguijo Project Manager

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1.0 INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of Plains All American Pipeline, LP (Plains), is pleased to submit this *Annual Monitoring Report* in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1st of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2014 only. For reference, a "Site Location Map" is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2014 to assess the levels and extent of dissolved phase constituents and Phase-Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 feet were not sampled.

2.0 SITE DESCRIPTION & BACKGROUND INFORMATION

The legal description of the site is Unit Letter "K" (NESW), Section 31, Township 20 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico and administered by the New Mexico State Land Office (NMSLO). The geographic coordinates of the release site are 32.52733° North latitude and 103.2906° West longitude.

On April 2, 2009, Plains discovered a crude oil release from a six (6)-inch steel pipeline. During initial response activities, Plains installed a temporary clamp on the pipeline to mitigate the release. The crude oil release resulted in a surface stain measuring approximately six (6) feet in width by eight (8) feet in length. Plains initially classified the release as "non-reportable". Upon further investigation, Plains reclassified the release to "reportable" status and notified the NMOCD Hobbs District Office and submitted a "Release Notification and Corrective Action" (Form C-141) on April 29, 2009. The cause of the release was attributed to external corrosion of the pipeline. The C-141 indicated approximately twenty (20) barrels of crude oil was released from the pipeline, with no recovery.

On April 15, 2009, one (1) soil boring (SB-1) was advanced approximately ten (10) feet west of the release point to evaluate the vertical extent of soil impact. During advancement of the soil boring, groundwater was encountered at approximately seventy-seven (77) feet below ground surface (bgs). Temporary casing was installed in the boring to obtain a preliminary groundwater sample. On April 16, 2009, a groundwater sample (SB-1) was collected from the temporary casing and submitted to the laboratory for analysis of total dissolved solids (TDS), chlorides, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Following the collection of the groundwater sample, the temporary casing was removed from the soil boring and the soil boring was plugged with cement and bentonite, as required by the New Mexico Office of the State Engineer (NMOSE). Laboratory analytical results indicated a benzene concentration of 1.915 mg/L, a BTEX concentration of 4.7711 mg/L, a chloride concentration of 54.6 mg/L, and a TDS concentration of 788 mg/L. Based on the analytical results of the submitted groundwater sample, Plains notified NMOCD representatives in the Hobbs District Office and the Santa Fe Office of the laboratory-confirmed impact to groundwater at the release site.

On June 2, 2009, following advancement of the soil boring, excavation of hydrocarbon-impacted soil commenced. Excavated soil was stockpiled on-site on a plastic liner to mitigate the potential leaching of the contaminants into the vadose zone. Approximately 1,400 cubic yards (cy) of soil was stockpiled on-site, pending final disposition. The final dimensions of the excavation were approximately seventy-seven (77) feet in width, approximately eighty (80) feet in length, and fifteen (15) feet in depth.

On September 21 through September 23, 2009, Plains installed and developed four (4) monitor wells (MW-1 through MW-4) at the release site, as approved by the NMOCD. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of BTEX and total petroleum hydrocarbons (TPH) using EPA Methods SW-846 8021b and SW-846 8015M, respectively.

Monitor well MW-1 was installed on the floor of the excavation, at approximately fifteen (15) feet bgs, to a total depth of approximately eighty-six (86) feet bgs. Soil samples collected at twenty-five (25) feet bgs, thirty-five (35) feet bgs, forty-five (45) feet bgs, fifty-five (55) feet bgs, sixty-five (65) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) for all of the submitted soil samples. BTEX concentrations ranged from 0.0359 mg/Kg for the soil sample collected at twenty-five (25) feet bgs to 13.444 mg/Kg for the soil sample collected at fifty-five (55) feet bgs. The TPH concentrations ranged from 286 mg/Kg for the soil sample collected at twenty-five (25) feet bgs to 1,538 mg/Kg for the soil sample collected at fifty-five (55) feet bgs.

Monitor well MW-2 is located approximately seventy-five (75) feet northwest (up-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, sixty (60) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

Monitor well MW-3 is located approximately seventy-five (75) feet to the southwest (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety (90) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, and sixty (60) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-five (45) feet bgs, and sixty (60) feet bgs to 0.0025 mg/Kg for the soil sample collected at sixty (60) feet bgs. Analytical results indicated BTEX concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, and forty-five (45) feet bgs to 0.0052 mg/Kg for the soil sample collected at sixty (60) feet bgs. TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

Monitor well MW-4 is located approximately seventy-five (75) feet to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately eighty-nine (89) feet bgs. Soil samples collected at fifteen (15) feet bgs, thirty (30) feet bgs, forty-

five (45) feet bgs, and sixty (60) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

On January 25, 2011, one (1) additional monitoring well (MW-5) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-5 is located approximately sixty (60) feet to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately ninety-five (95) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty-five (25) feet bgs, forty-five (45) feet bgs, sixty-five (65) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples. PSH was not observed in monitor well MW-5.

On September 11, 2013, one (1) additional monitoring well (MW-6) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-6 is located approximately ninety-five (95) feet to the east (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately one hundred (100) feet bgs. Soil samples collected at five (5) feet bgs, forty (40) feet bgs, and seventy-five (75) feet bgs were submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples. PSH was not observed in monitor well MW-6.

Currently, a total of six (6) monitor wells are located at the DCP Plant to Lea Station 6-Inch Section 31 release site. Monitor wells MW-2 through MW-6 are gauged and sampled on a quarterly schedule, while MW-1 is gauged weekly but not sampled due to the presence of PSH.

3.0 FIELD ACTIVITIES

3.1 Product Recovery Efforts

A measurable thickness of PSH was detected in monitor well MW-1 during the initial site investigation. Basin Environmental began manual, bi-weekly gauging and recovery of PSH from monitor well MW-1 in October 2009. Approximately 4,650 gallons (111 barrels) of PSH has been recovered from MW-1 since recovery operations began in 2009, and approximately 1,069 gallons (25.5 barrels) of PSH was recovered from MW-1 during the 2014 reporting period. The average PSH thickness measured in monitor well MW-1 during the reporting period was 2.78 feet, and the maximum PSH thickness was 4.15 feet on March 4, 2014.

In September 2012, a Mobile Dual-Phase Extraction (MDPE) unit was installed on monitor well MW-1 by Talon LPE. The MDPE unit is shared with the nearby release site known as DCP Plant to Lea Station 6-Inch #2 (NMOCD Reference #1RP-2136), and the location of the unit is alternated quarterly. During the 2014 reporting period, approximately 1,816 gallons (43.2 barrels) of PSH in the vapor phase and approximately 5.5 gallons (0.13 barrels) of PSH in the liquid phase were recovered by the MDPE unit, for a total of approximately 1,822 equivalent gallons (43.4 barrels) of PSH. To date, a total of approximately 4,196 equivalent gallons (99.9 barrels) of PSH has been recovered from monitor well MW-1 by MDPE.

All recovered fluids are disposed of at an NMOCD-approved disposal facility.

3.2 Groundwater Monitoring

The on-site monitor wells were gauged and sampled on February 14 (1Q2014), May 8 (2Q2014), August 5 (3Q2014), and November 7, 2014 (4Q2014). The groundwater monitoring events consisted of measuring static water levels in the on-site monitor wells (MW-1 through MW-7), checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. The monitor wells were purged using disposable Teflon bailers of a minimum of three (3) well volumes of water, or until the wells were dry. Groundwater was allowed to recharge, and samples were obtained using clean, disposable Teflon bailers. Water samples were stored in clean, plastic or glass containers provided by the laboratory and placed on ice in the field. Purged water was collected in a trailer-mounted polystyrene tank and disposed of at an NMOCD-approved disposal.

A yearly monitoring event for polyaromatic hydrocarbons (PAH) was conducted on May 13, 2014. Based on sampling criteria provided by the NMOCD, only monitor well MW-6 was subject to PAH monitoring during the 2014 calendar year.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from the measurements collected during the 2014 quarterly sampling events, are depicted in Figures 2A through 2D. The "Groundwater Gradient Map" from the most recent sampling event (Figure 2D, November 7, 2014) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-2 and MW-4.

On November 7, 2014, the corrected groundwater elevation ranged between 3,455.61 and 3,456.35 feet above mean sea level in monitor wells MW-4 and MW-2, respectively. The "2014 Groundwater Elevation Data" is provided as Table 1.

4.0 LABORATORY RESULTS

Groundwater samples collected from the monitor wells during the quarterly and yearly monitoring events were delivered to Xenco Laboratories in Odessa, Texas, for determination of BTEX and/or PAH constituent concentrations by EPA Methods SW846-8021b and SW846 8270C, respectively. A summary of benzene and BTEX constituent concentrations is presented in Table 2, "2014 Concentrations of Benzene & BTEX in Groundwater". A summary of PAH constituent concentrations is presented in Table 3, "Concentrations of Semi-Volatile Compounds in Groundwater". Laboratory analytical reports are provided as Appendix A. "Groundwater Concentration" maps are provided as Figures 3A through 3D.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code (NMAC).

Monitor well MW-1

Monitor well MW-1 was not sampled during the 2014 reporting period due to the presence of PSH in the monitor well.

Monitor well MW-2

Laboratory analytical results indicated benzene, ethylbenzene, toluene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-3

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in 1Q2014, 3Q2014, and 4Q2014 to 0.0024 mg/L in 2Q2014. Ethylbenzene, toluene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. Benzene, ethylbenzene, toluene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-4

Laboratory analytical results indicated benzene concentrations ranged from 0.0047 mg/L in 4Q2014 to 0.0240 mg/L in 1Q2014. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in all submitted groundwater samples. The benzene concentration in the groundwater sample collected during 1Q2014 exceeded the NMOCD regulatory standard of 0.01 mg/L. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-5

Laboratory analytical results indicated benzene, ethylbenzene, toluene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-6

Laboratory analytical results indicated benzene, ethylbenzene, toluene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards in 3Q2013 and 4Q2013.

PAH constituent concentrations were both less than the appropriate laboratory MDL and NMOCD regulatory standards in the groundwater sample collected on May 13, 2014.

5.0 SUMMARY

This report presents the results of the monitoring activities for the 2014 annual monitoring period. Currently, there are six (6) groundwater monitor wells (MW-1 through MW-6) on-site. Monitor well MW-1 was not sampled in 2014 due to the presence of PSH in the monitor well. Monitor wells MW-2 through MW-6 were sampled during all four quarters of the monitoring period. The results of these sampling events are summarized above.

The "Groundwater Gradient Map" from the most recent sampling event (Figure 2D, November 7, 2014) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-2 and MW-4.

A measurable thickness of PSH was detected in monitor well MW-1 throughout the 2013 reporting period. The average PSH thickness measured in MW-1 during the reporting period was 2.78 feet, and the maximum PSH thickness was 4.15 feet on March 4, 2014.

During the reporting period, approximately 1,069 gallons (25.5 barrels) of PSH was recovered, by manual recovery, from monitor well MW-1. Approximately 1,816 gallons (43.2 barrels) of PSH in the vapor phase and approximately 5.5 gallons (0.13 barrels) of PSH in the liquid phase were recovered by Mobile Dual-Phase Extraction, for a total of approximately 1,822 equivalent gallons (43.4 barrels) of PSH.

Review of laboratory analytical results generated from analysis of groundwater samples collected in 2014 indicated benzene concentrations were less than NMOCD regulatory standards in monitor wells MW-2, MW-3, MW-5, and MW-6. However, the benzene concentration in the groundwater sample collected from monitor well MW-4 during 1Q2014 exceeded the NMOCD regulatory standard of 0.01 mg/L. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards during all four quarters of the reporting period.

6.0 ANTICIPATED ACTIONS

PSH recovery by Mobile Dual-Phase Extraction from monitor well MW-1 will continue on an alternating quarterly basis during the 2015 monitoring period. During months when the MDPE unit is not active at the site, manual PSH recovery from monitor well MW-1 will be conducted on a semi-weekly schedule. All fluids recovered from MW-1 will be disposed of at an NMOCD-permitted disposal facility.

Monitor wells MW-2 through MW-6 will be monitored and sampled quarterly. Results from the 2015 sampling events will be reported in the 2015 Annual Monitoring Report, which will be submitted to the NMOCD by April 1, 2016.

7.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Annual Monitoring Report* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental 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 All American Pipeline, 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 All American Pipeline, LP.

8.0 DISTRIBUTION

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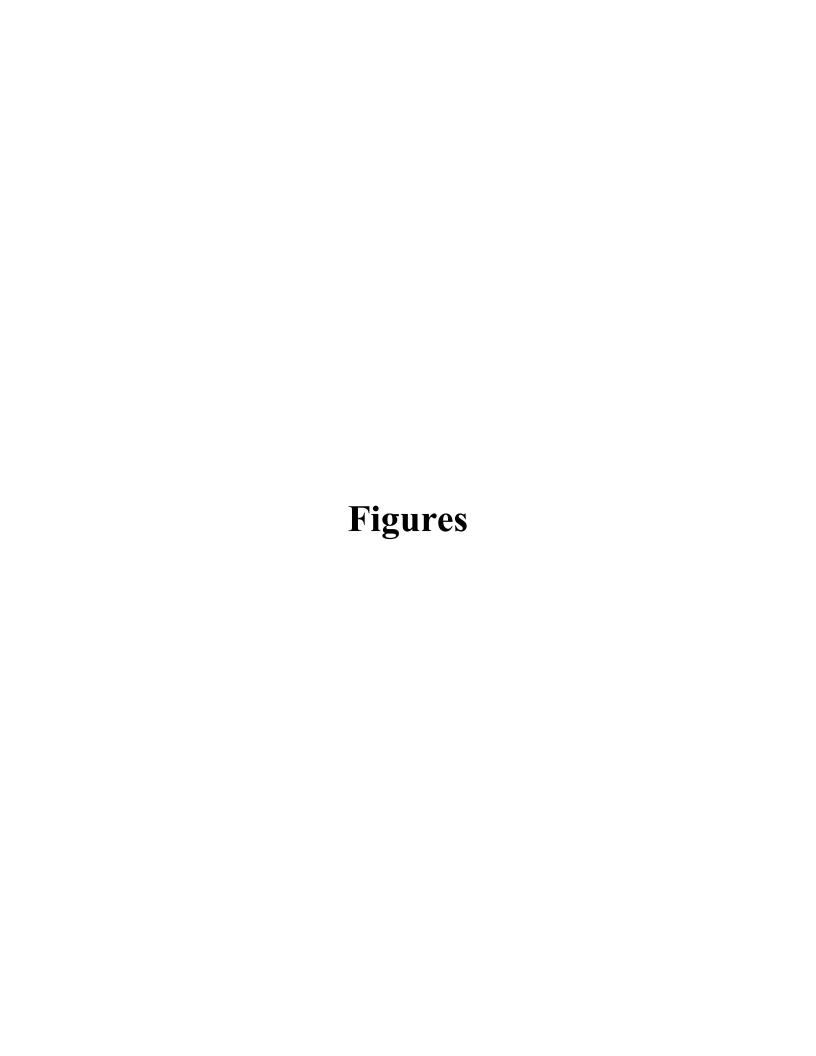
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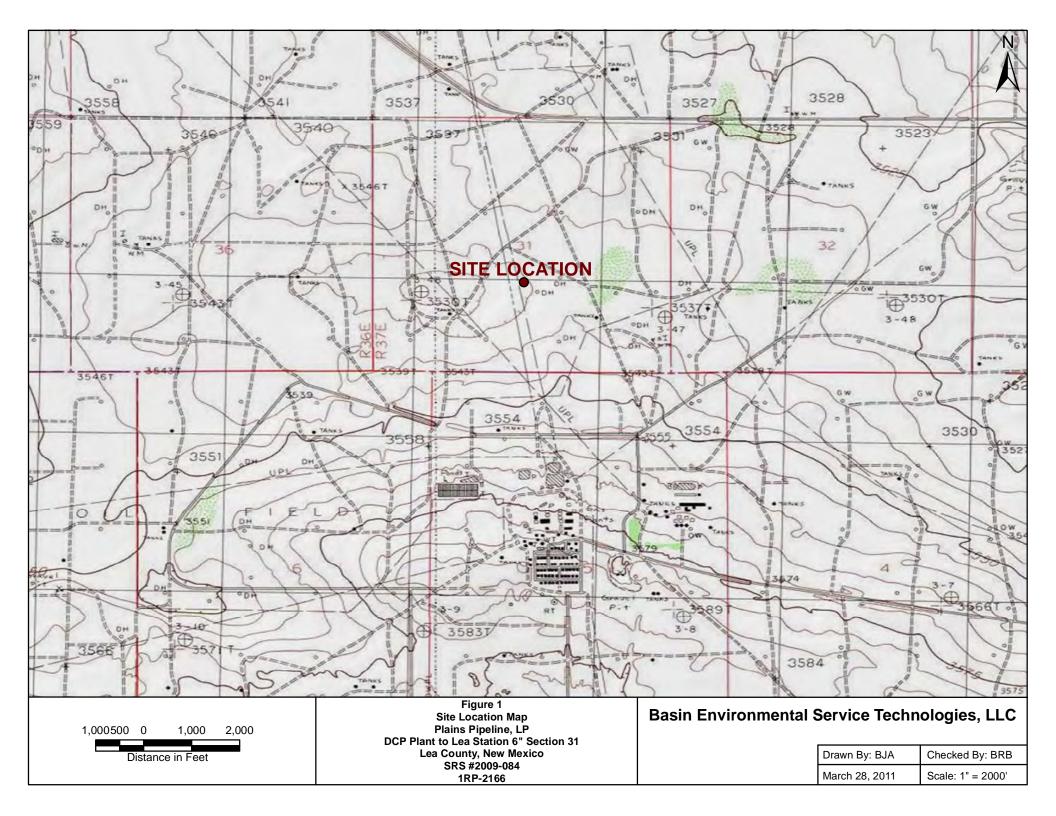
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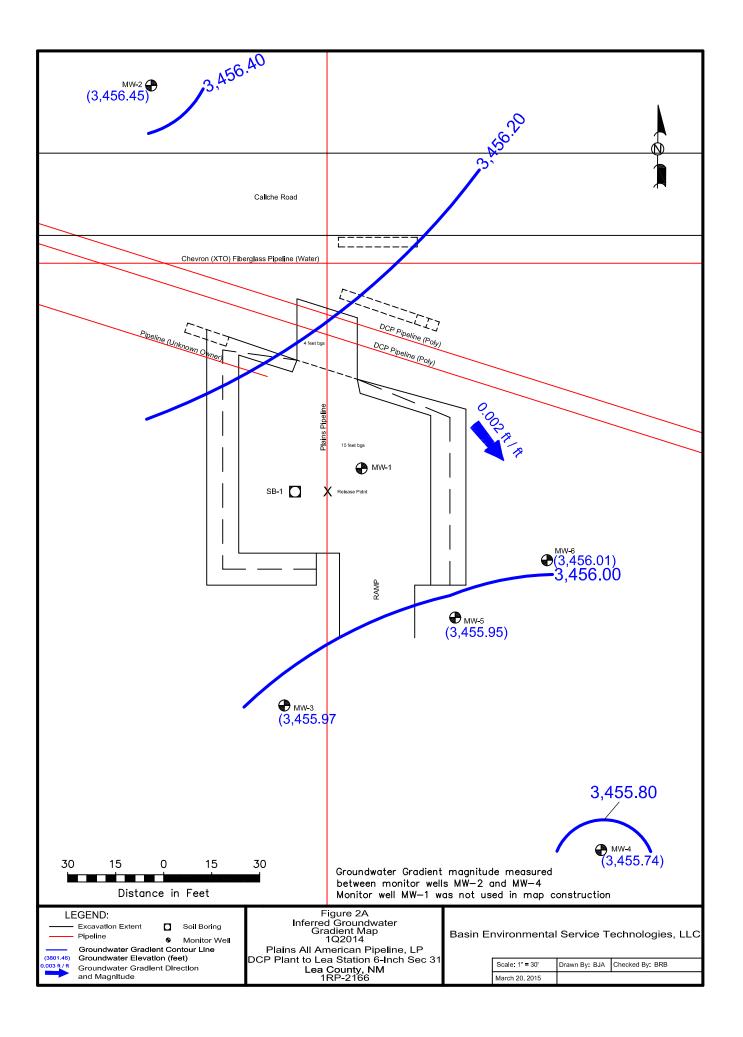
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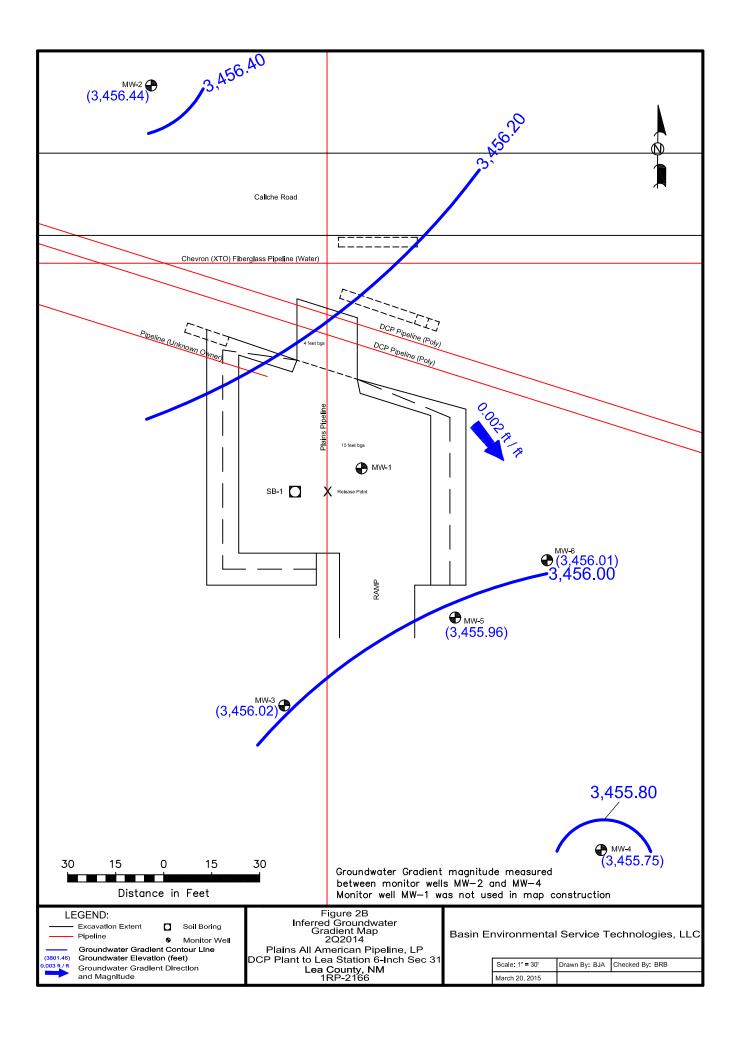
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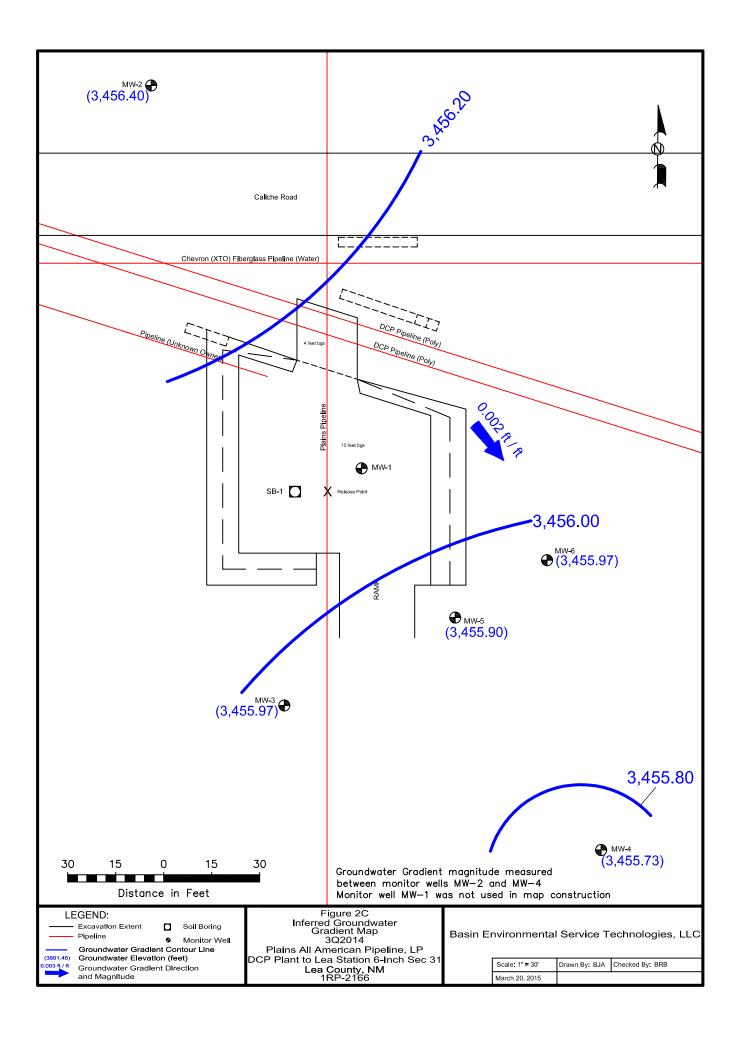
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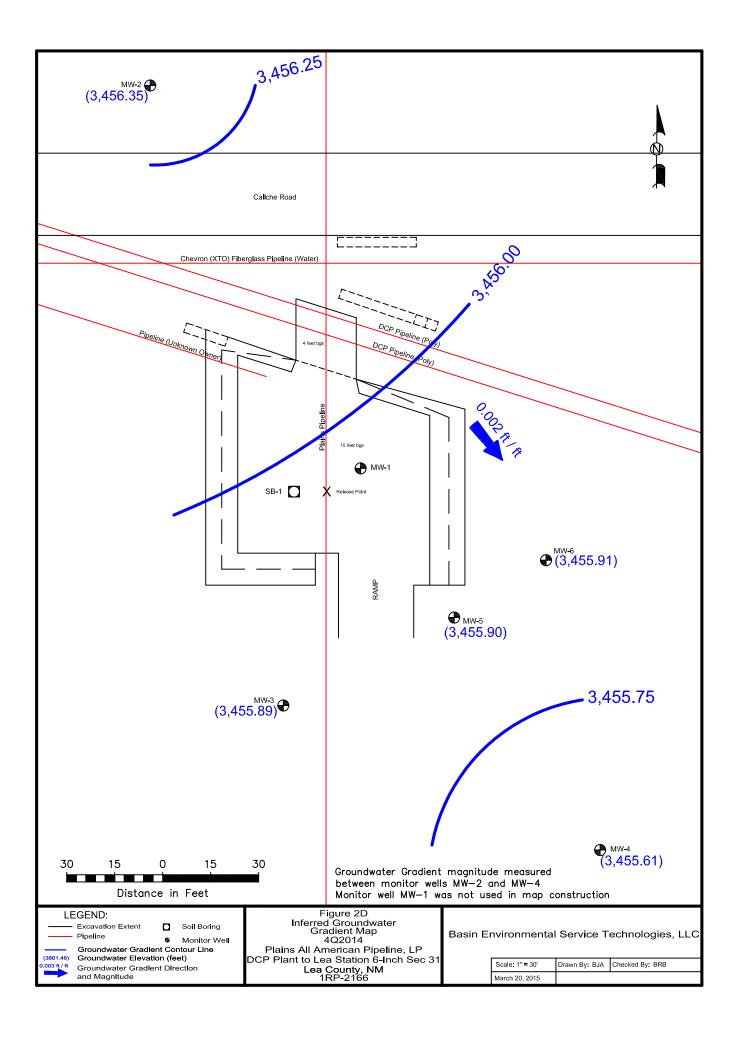


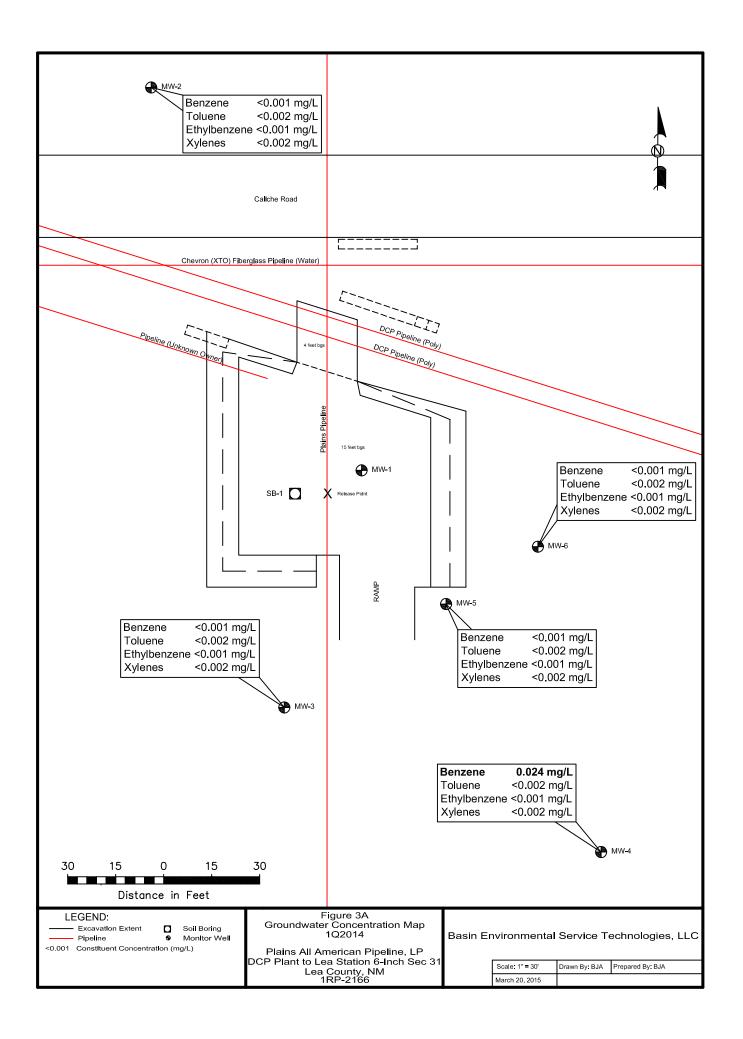


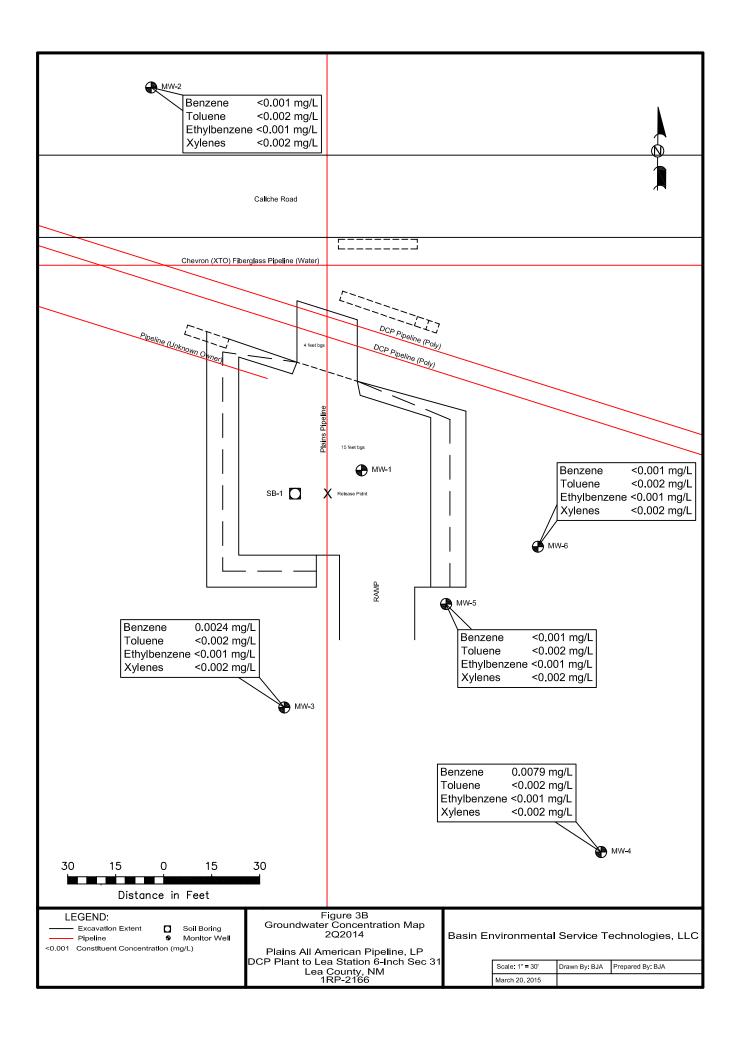


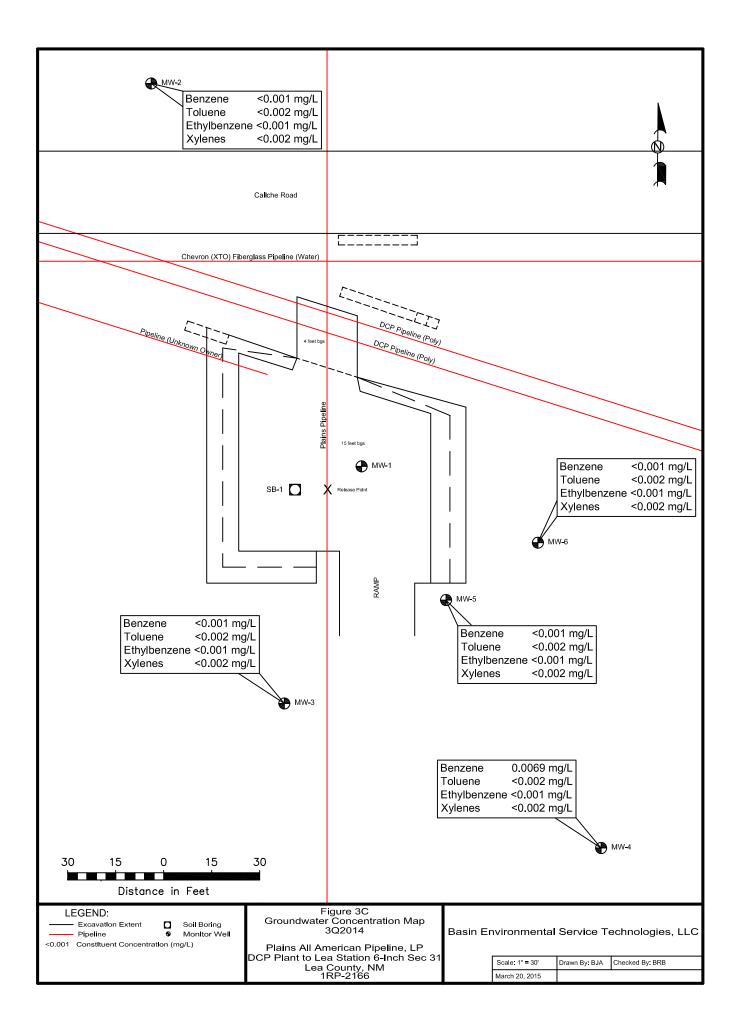


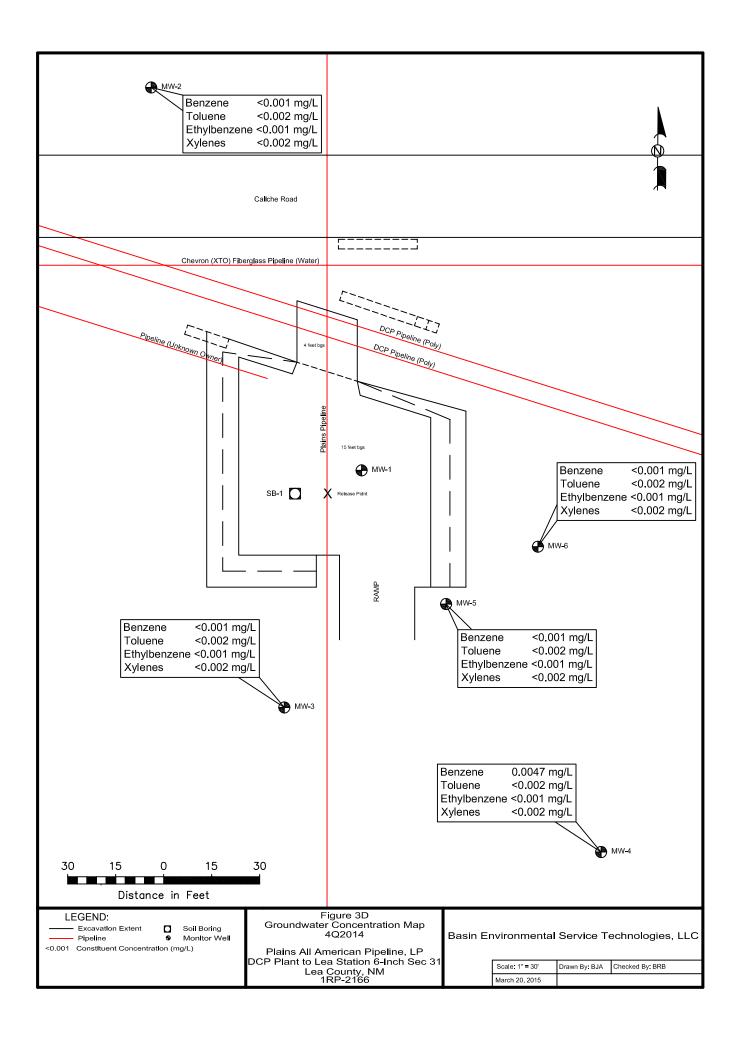












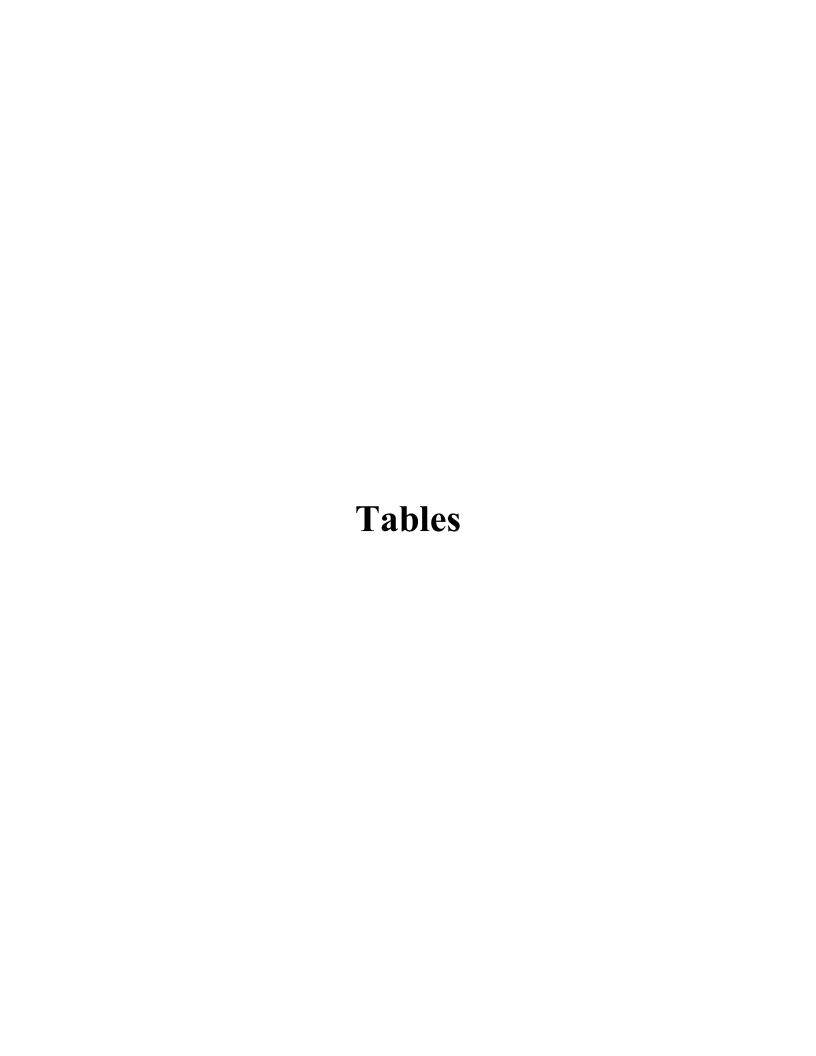


TABLE 1 2014 GROUNDWATER ELEVATION DATA

PLAINS ALL AMERICAN PIPELINE, LP DCP PLANT TO LEA STATION 6-INCH SEC. 31 LEA COUNTY, NEW MEXICO PLAINS SRS #: 2009-084

NMOCD REFERENCE #: 1RP-2166

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/14/2014	3,539.59	82.68	85.86	3.18	3,456.43
	05/08/2014	3,539.59	*	*	*	*
	08/05/2014	3,539.59	82.86	85.77		3,453.82
	11/07/2014	3,539.59	*	*	*	*
MW-2	02/14/2014	3,539.37	1	82.92	-	3,456.45
	05/08/2014	3,539.37	ı	82.93	ı	3,456.44
	08/05/2014	3,539.37	ı	82.97	-	3,456.40
	11/07/2014	3,539.37	1	83.02	-	3,456.35
MW-3	02/14/2014	3,539.28	1	83.31	-	3,455.97
	05/08/2014	3,539.28	-	83.26	-	3,456.02
	08/05/2014	3,539.28	-	83.31	-	3,455.97
	11/07/2014	3,539.28	-	83.39	-	3,455.89
MW-4	02/14/2014	3,540.07	1	84.33	-	3,455.74
	05/08/2014	3,540.07	1	84.32	-	3,455.75
	08/05/2014	3,540.07	ı	84.34	ı	3,455.73
	11/07/2014	3,540.07	ı	84.46	-	3,455.61
MW-5	02/14/2014	3,539.90	1	83.95	-	3,455.95
	05/08/2014	3,539.90	ı	83.94	-	3,455.96
	08/05/2014	3,539.90	1	84.00	-	3,455.90
	11/07/2014	3,539.90	-	84.00	-	3,455.90
MW-6	02/14/2014	3540.82	1	84.81	-	3,456.01
	05/08/2014	3540.82	1	84.81	-	3,456.01
	08/05/2014	3540.82	-	84.85	-	3,455.97
	11/07/2014	3540.82	-	84.91	-	3,455.91

^{- =} Not applicable

Elevations based on the North American Vertical Datum of 1988

* Due to the presence of a Mobile Dual Phase Extraction (MDPE) unit, monitor well MW-1 was not gauged during the 2Q2014 & 4Q2014 quarterly monitoring events.

TABLE 2 2014 CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER

PLAINS ALL AMERICAN PIPELINE, LP DCP PLANT TO LEA STATION 6-INCH SEC. 31 LEA COUNTY, NEW MEXICO PLAINS SRS #: 2009-084

NMOCD REFERENCE #: 1RP-2166

			M	ETHODS: I	EPA SW 846-	-8260b	
SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M,P- XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-2	02/14/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	05/08/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	08/05/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	11/07/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
MW-3	02/14/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	05/08/14	0.0024	<0.0020	< 0.0010	< 0.0020	< 0.0010	0.0024
	08/05/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	11/07/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
MW-4	02/14/14	0.0240	<0.0020	< 0.0010	< 0.0020	< 0.0010	0.0240
	05/08/14	0.0079	<0.0020	< 0.0010	< 0.0020	< 0.0010	0.0079
	08/05/14	0.0069	< 0.0020	< 0.0010	< 0.0020	< 0.0010	0.0069
	11/07/14	0.0047	<0.0020	< 0.0010	< 0.0020	< 0.0010	0.0047
MW-5	02/14/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	05/08/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	08/05/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	11/07/14	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
MW-6	02/14/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
	05/08/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	<0.0020
	08/05/14	< 0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	<0.0020
	11/07/14	< 0.0010	<0.0020	<0.0010	< 0.0020	< 0.0010	<0.0020
NMOCD CRITERIA	Α	0.01	0.75	0.75	TOTAL XY	LENES 0.62	

TABLE 3 CONCENTRATIONS OF SEMI-VOLATILE COMPOUNDS IN GROUNDWATER

PLAINS ALL AMERICAN PIPELINE, LP DCP PLANT TO LEA STATION 6-INCH SEC. 31 LEA COUNTY, NEW MEXICO PLAINS SRS #: 2009-084 NMOCD REFERENCE #: 1RP-2166

All water concentrations are reported in mg/L

								E	PA SW846	-8270C, 35	10						
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
MW-6	5/13/2014	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.000051	<0.00051	<0.000051	<0.000051



Appendix A Laboratory Analytical Reports

Analytical Report 479538

for PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo
DCP Plant to Lea Station 6' Sec 31
SRS# 2009-084
24-FEB-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

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)





24-FEB-14

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

Reference: XENCO Report No(s): 479538

DCP Plant to Lea Station 6' Sec 31 Project Address: Lea County, NM

Ben Arguijo:

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(s) 479538. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 479538 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, Moah

Kelsey Brooks

Project Manager

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Sample Cross Reference 479538



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6' Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	02-14-14 13:00		479538-001
MW-3	W	02-14-14 13:20		479538-002
MW-4	W	02-18-14 13:30		479538-003
MW-5	W	02-14-14 14:00		479538-004
MW-6	W	02-14-14 14:30		479538-005



CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: DCP Plant to Lea Station 6' Sec 31

 Project ID:
 SRS# 2009-084
 Report Date:
 24-FEB-14

 Work Order Number(s):
 479538
 Date Received:
 02/18/2014

	Sample receipt non conformances and comments:
-	Sample receipt non conformances and comments per sample:
	None



Certificate of Analysis Summary 479538

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: SRS# 2009-084

Project Name: DCP Plant to Lea Station 6' Sec 31

Contact: Ben Arguijo **Project Location:** Lea County, NM

 $\textbf{Date Received in Lab:} \quad \text{Tue Feb-}18-14\ 03:40\ pm$

Report Date: 24-FEB-14

Project Manager: Kelsey Brooks

				9	Reisey Diooks	
Lab Id:	479538-001	479538-002	479538-003	479538-004	479538-005	
Field Id:	MW-2	MW-3	MW-4	MW-5	MW-6	
Depth:						
Matrix:	WATER	WATER	WATER	WATER	WATER	
Sampled:	Feb-14-14 13:00	Feb-14-14 13:20	Feb-18-14 13:30	Feb-14-14 14:00	Feb-14-14 14:30	
Extracted:	Feb-23-14 15:00	Feb-23-14 15:00	Feb-23-14 15:00	Feb-23-14 15:00	Feb-23-14 15:00	
Analyzed:	Feb-23-14 22:12	Feb-23-14 22:28	Feb-23-14 22:44	Feb-23-14 23:00	Feb-23-14 23:16	
Units/RL:	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL	
	ND 0.00100	ND 0.00100	0.0240 0.00100	ND 0.00100	ND 0.00100	
	ND 0.00200	ND 0.00200	ND 0.00200	ND 0.00200	ND 0.00200	
	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	
	ND 0.00200	ND 0.00200	ND 0.00200	ND 0.00200	ND 0.00200	
	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	
	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	
	ND 0.00100	ND 0.00100	0.0240 0.00100	ND 0.00100	ND 0.00100	
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed:	Field Id: MW-2 Depth: WATER Matrix: WATER Sampled: Feb-14-14 13:00 Extracted: Feb-23-14 15:00 Analyzed: Feb-23-14 22:12 Units/RL: Mp/L RL ND 0.00100 ND 0.00200 ND 0.00200 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100	Field Id: MW-2 MW-3 Depth: WATER WATER WATER Sampled: Feb-14-14 13:00 Feb-14-14 13:20 Extracted: Feb-23-14 15:00 Feb-23-14 15:00 Analyzed: Feb-23-14 22:12 Feb-23-14 22:28 Units/RL: mg/L RL mg/L RL ND 0.00100 ND 0.00100 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100	Field Id: MW-2 MW-3 MW-4 Depth: Watrix: WATER WATER WATER WATER Sampled: Feb-14-14 13:00 Feb-14-14 13:20 Feb-18-14 13:30 Extracted: Feb-23-14 15:00 Feb-23-14 15:00 Feb-23-14 15:00 Analyzed: Feb-23-14 22:12 Feb-23-14 22:28 Feb-23-14 22:44 Units/RL: mg/L RL mg/L RL mg/L RL ND 0.00100 ND 0.00100 0.0240 0.00100 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00200 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND 0.00100 ND	Field Id: MW-2 MW-3 MW-4 MW-5 Matrix: WATER Peb-14-14 14:00 Peb-14-14 15:00 Feb-14-14 15:00 Feb-23-14 15:00 Feb-23-14 15:00 Feb-23-14 15:00 Feb-23-14 20:00 Feb-23-14 20:00 Peb-23-14 15:00 Feb-23-14 20:00 Peb-23-14 20:00<	Field Id: MW-2 MW-3 MW-4 MW-5 MW-6 Depth: Matrix: WATER Peb-14-14 14:30 Feb-14-14 14:30 Feb-23-14 15:00 Feb-23-14 15:00

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

Kelsey Brooks
Project 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.
- ** 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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



4-Bromofluorobenzene

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6' Sec 31

Project ID: SRS# 2009-084 Work Orders: 479538,

Lab Batch #: 934653 Matrix: Water Sample: 479538-001 / SMP Batch:

Units: mg/L	Date Analyzed: 02/23/14 22:12	SU	RROGATE RE	ECOVERY S	STUDY	
ВТЕ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Timing tes	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0254	0.0300	85	80-120	

Lab Batch #: 934653 Matrix: Water Sample: 479538-002 / SMP Batch: 1

Units: mg/L Date Analyzed: 02/23/14 22:28 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021B Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0293 0.0300 98 80-120

0.0276

0.0300

80-120

92

Lab Batch #: 934653 Sample: 479538-003 / SMP Matrix: Water Batch:

mg/L **Units:** Date Analyzed: 02/23/14 22:44 SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 934653 **Sample:** 479538-004 / SMP Batch: Matrix: Water

Units: mg/L Date Analyzed: 02/23/14 23:00 SURROGATE RECOVERY STUDY							
	BTF	CX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		Analytes			[10]		
1,4-Difluoro	obenzene		0.0279	0.0300	93	80-120	
4-Bromoflu	orobenzene		0.0253	0.0300	84	80-120	

Lab Batch #: 934653 **Sample:** 479538-005 / SMP Batch: Matrix: Water

Units: mg/L Date Analyzed: 02/23/14 23:16 SURROGATE RECOVERY STUDY							
BT	EX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Difluorobenzene		0.0305	0.0300	102	80-120		
4-Bromofluorobenzene		0.0274	0.0300	91	80-120		

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6' Sec 31

Work Orders: 479538, Project ID: SRS# 2009-084

Lab Batch #: 934653 **Sample:** 651480-1-BLK / BLK **Batch:** 1 **Matrix:** Water

mg/L **Units:** Date Analyzed: 02/23/14 19:18 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D]**Analytes** 1,4-Difluorobenzene 80-120 0.0276 0.0300 92 4-Bromofluorobenzene 0.0263 0.0300 88 80-120

Lab Batch #: 934653 **Sample:** 651480-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L Date Analyzed: 02/23/14 19:33 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Limits Amount Flags Recovery [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0328 0.0300 109 80-120 4-Bromofluorobenzene 0.0300 0.0321 107 80-120

Lab Batch #: 934653 Sample: 651480-1-BSD / BSD Batch: 1 Matrix: Water

Units: mg/L Date Analyzed: 02/23/14 19:49 SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 934653 **Sample:** 479199-005 S / MS **Batch:** 1 **Matrix:** Water

Units: Date Analyzed: 02/24/14 09:47 mg/L SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B Found Amount Recovery Limits **Flags** [B] %R %R [A] [D] **Analytes** 1,4-Difluorobenzene 0.0330 0.0300 110 80-120 4-Bromofluorobenzene 0.0331 0.0300 110 80-120

Units: mg/L Date Analyzed: 02/24/14 10:02 SURROGATE RECOVERY STUDY Amount True Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D]**Analytes** 1,4-Difluorobenzene 0.0312 0.0300 104 80-120 4-Bromofluorobenzene 0.0302 0.0300 101 80-120

Surrogate Recovery [D] = 100 * A / B

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

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6' Sec 31

Work Order #: 479538 **Project ID:** SRS# 2009-084

Date Prepared: 02/23/2014 **Date Analyzed:** 02/23/2014 **Analyst:** ARM

Lab Batch ID: 934653 **Sample:** 651480-1-BKS **Batch #:** 1 Matrix: Water

Units: mg/L	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021B Analytes	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
Benzene	< 0.00100	0.100	0.105	105	0.100	0.109	109	4	70-125	25	
Toluene	< 0.00200	0.100	0.105	105	0.100	0.109	109	4	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.102	102	0.100	0.107	107	5	71-129	25	
m_p-Xylenes	< 0.00200	0.200	0.201	101	0.200	0.210	105	4	70-131	25	
o-Xylene	< 0.00100	0.100	0.104	104	0.100	0.109	109	5	71-133	25	

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: DCP Plant to Lea Station 6' Sec 31

Work Order #: 479538 Project ID: SRS# 2009-084

Lab Batch ID: 934653 **QC- Sample ID:** 479199-005 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 02/24/2014 Date Prepared: 02/23/2014 Analyst: ARM

Reporting Units: mg/L MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	Result [1]	[G]	70	/ UK	70KI D	
Benzene	< 0.00100	0.100	0.116	116	0.100	0.109	109	6	70-125	25	
Toluene	0.00344	0.100	0.122	119	0.100	0.114	111	7	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.119	119	0.100	0.112	112	6	71-129	25	
m_p-Xylenes	< 0.00200	0.200	0.237	119	0.200	0.223	112	6	70-131	25	
o-Xylene	0.00132	0.100	0.120	119	0.100	0.112	111	7	71-133	25	

Y	-	10
	L	40
Labo	oral	ories
		STATE OF STREET

3100 Plains Hwy.

MW-2

Relinquished by

Basin Environmental Service Technologies, LLC

Company:

Address:

3

4

CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800 Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

Phone:

Fax:

GW

AL NM Other:

Affiliation

Busin

Page 1 of 1

VA Vial Amber Encore Sampler VC Vial Clear TS TerraCore Sampler VP Vial Pre-preserved AC Air Canister GA Glass Amber TB ZB Tedlar Bag Glass Clear Zip Lock Bag Plastic Clear

REMARKS

* Container Type Codes

Field billable Hrs: PA Plastic Amber (575)396-2378 TAT Work Days = D Need results by: PC Plastic Clear Time: Other (575)396-1429 (Std (5-ZD) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other

Match Incomplete

Affiliation

Derco Odina

Unclear

Date

Time

13:00

Absent

LAB W.O#:

City:	Lovington State: NM		Zin:		(510 (5-11)	5Hrs 1D 2D 3D	Other	Size(s): 20z, 40z, 80z, 160z, 32oz , 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other	
PM/Attn:			88200			ANALYS	ES REQUESTED		** Preservative Type Codes
Separation of the Indiana	Ben Arguijo	Email:	cjbryant@paalp.com, bjarguijo@basinenv.com	Cont Type *	VP				
Project ID:	SRS #2009-084	31	PO#: PAA-C. Bryant	Pres Type**	E,I				A. None E. HCL I. Ice B. HNO ₃ F. MeOH J. MCAA (H ₂ SO ₄ G. Na ₂ S ₂ O ₃ K. ZnAc&NaOH
Invoice To	: Camille Bryant Plains All Ame	erican	Quote #:	0.	L,1			± ±	D. NaOH H. NaHSO ₄ L Asbc Acid&NaOH O.
Sampler S	ignature:	Circle One Event: Daily Semi-Annual Annual	Weekly Monthly Quartely N/A	nple by 826	X			ample Run PA	^ Matrix Type Codes GW Ground Water S Soil/Sediment/Solid WW Waste Water W Wipe
Sample #	Sample ID	Collect Collect Date Time	Code v Pield Filtered Integrity OK (Y/N) Total # of containers	Exar Volatiles	ВТ			Hold S. (CALL) on Highest TPH	DW Drinking Water A Air SW Surface Water O Oil OW Ocean/Sea Water T Tissue PL Product-Liquid U Urine PS Product-Solid B Blood SL Sludge
~				Million Company			And the second s	~ 0	0.0

Cont | Lab Only:

3

X

Other:	//	AL NM Othe	or:		NEL AC D	D =1 . =		5656	ADarı	SEDD E	RPIMS	Match Ir	ncomplete				,	Non Confermence for 10	
Other:	TRRP DW NPDES LPST DryCln	FL TX GA N	IC SC NJ PA	OK LA			AFCEE QA		ADaDT		-DDU 40			000	neis i	emp C	- 1	Lab Use Only	YES NO N/A
	Reg. Program / Clean-up Std	STATE	for Certs &	Regs	QA/Q	C Level	& Certific	ation		EDDs		COC &	Labels	Coc	doro T	emp °C	101		
0																			
					\vdash									_					
9															_				
8														_	-				
<u></u>							125 27												
7					+														
6						+		1							_				
5	MW-6	2-14-14	14:30	GW		3		X											
_4	MW-5	214-14	14:00	GW		3		X											
		2 465	131	GW	+	3		X				G.							
3	MW-4		18:30		+			1	-	-	-	-							
2	MW-3	2.14.19	12.50	GW		3		X				_		\rightarrow					
			1 4	-				/ \					1		- 1				

XLS Other:

Received by

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330

NELAC DoD-ELAP Other:

Date

C.O.C. Serial #

Non-Conformances found?

Samples intact upon arrival?

VOCs rec'd w/o headspace? roper containers used?

abeled with proper preservatives? eceived within holding time? Custody seals intact?

pH verified-acceptable, excl VOCs? Received on time to meet HTs?

Received on Wet Ice?

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Time

3:40



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 02/18/2014 03:40:00 PM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Work Order #: 479538

Temperature Measuring device used:

	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		18.1
#2 *Shipping container in good cor	ndition?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping	ng container/ cooler?	Yes
#5 Custody Seals intact on sample	bottles?	Yes
#6 *Custody Seals Signed and date	ed?	Yes
#7 *Chain of Custody present?		Yes
#8 Sample instructions complete o	n Chain of Custody?	Yes
#9 Any missing/extra samples?		No
#10 Chain of Custody signed when	relinquished/ received?	Yes
#11 Chain of Custody agrees with	sample label(s)?	Yes
#12 Container label(s) legible and	intact?	Yes
#13 Sample matrix/ properties agree	ee with Chain of Custody?	Yes
#14 Samples in proper container/ b	pottle?	Yes
#15 Samples properly preserved?		Yes
#16 Sample container(s) intact?		Yes
#17 Sufficient sample amount for in	ndicated test(s)?	Yes
#18 All samples received within ho	ld time?	Yes
#19 Subcontract of sample(s)?		No
#20 VOC samples have zero head	space (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved w	vith HNO3,HCL, H2SO4?	Yes
#22 > 10 for all samples preserved	with NaAsO2+NaOH, ZnAc+NaOH?	Yes
	urs delivery of samples prior to placing i	n the refrigerator
Checklist completed Checklist reviewed	Ruriko Konuma	Date: 02/18/2014 Date: 02/18/2014

Analytical Report 485077

for PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo

DCP PLANT TO LEA STATION 6" SEC. 31

SRS #2009-084

16-MAY-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

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)





16-MAY-14

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

Reference: XENCO Report No(s): 485077

DCP PLANT TO LEA STATION 6" SEC. 31

Project Address: NM

Ben Arguijo:

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(s) 485077. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 485077 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,

Kelsey Brooks

Knis Hoah

Project Manager

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Sample Cross Reference 485077



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP PLANT TO LEA STATION 6" SEC. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	05-08-14 13:30		485077-001
MW-3	W	05-08-14 14:00		485077-002
MW-4	W	05-08-14 14:30		485077-003
MW-5	W	05-08-47 15:00		485077-004
MW-6	W	05-08-14 15:30		485077-005



CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S
Project Name: DCP PLANT TO LEA STATION 6" SEC. 31

 Project ID:
 SRS #2009-084
 Report Date:
 16-MAY-14

 Work Order Number(s):
 485077
 Date Received:
 05/09/2014

Sample receipt non conformances an	nd comments:	
Sample receipt non conformances an	nd comments per sample:	
None		



Project Location: NM

Certificate of Analysis Summary 485077

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: SRS #2009-084

Project Name: DCP PLANT TO LEA STATION 6" SEC. 31

Contact: Ben Arguijo

Date Received in Lab: Fri May-09-14 03:30 pm **Report Date:** 16-MAY-14

Project Manager: Kelsey Brooks

								Project Ma	nager:	Kelsey Brook	S	
	Lab Id:	485077-0	485077-001		002	485077-003		485077-004		485077-005		
Analysis Requested	Field Id:	MW-2	MW-2		MW-3		MW-4		5	MW-6	5	
Analysis Requesieu	Depth:											
	Matrix:	WATE	WATER		R	WATE	R	WATE	R	WATE	R	
	Sampled:	May-08-14 13:30		May-08-14	14:00	May-08-14 14:30		May-08-47 15:00		May-08-14	15:30	
BTEX by EPA 8021B	Extracted:	May-15-14	May-15-14 16:00		16:00	May-15-14 16:00		May-15-14 16:00		May-15-14 16:00		
	Analyzed:	May-16-14	May-16-14 01:51		May-16-14 02:07 May-16-14 02:24		May-16-14 02:40		May-16-14 02:57			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	
Benzene		ND	0.00100	0.00240	0.00100	0.00794	0.00100	ND	0.00100	ND	0.00100	
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	
Ethylbenzene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
m,p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	
o-Xylene		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
Total Xylenes		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
Total BTEX		ND	0.00100	0.00240	0.00100	0.00794	0.00100	ND	0.00100	ND	0.00100	

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

Kelsey Brooks

Project 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.
- ** 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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



T T-- 24 -- -

Form 2 - Surrogate Recoveries

Project Name: DCP PLANT TO LEA STATION 6" SEC. 31

0.0300

80-120

103

Project ID: SRS #2009-084 Work Orders: 485077,

Lab Batch #: 941148 Matrix: Water Sample: 485077-001 / SMP Batch:

Data Amalamada 05/16/14 01.51

Units: mg/L Date Analyzed: 05/16/14 01:51	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Matrix: Water **Lab Batch #:** 941148 Sample: 485077-002 / SMP Batch: 1

Units: mg/L Date Analyzed: 05/16/14 02:07 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021B Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0270 0.0300 90 80-120 4-Bromofluorobenzene

0.0308

Lab Batch #: 941148 Sample: 485077-003 / SMP Matrix: Water Batch:

Units: mg/L Date Analyzed: 05/16/14 02:24 SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 941148 **Sample:** 485077-004 / SMP Batch: Matrix: Water

Units:	mg/L	Date Analyzed: 05/16/14 02:40	SU	RROGATE R	ECOVERY S	STUDY	
	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene	Analytes	0.0284	0.0300	95	80-120	
4-Bromoflu	orobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 941148 **Sample:** 485077-005 / SMP Batch: Matrix: Water

Units: mg/L Date Analyzed: 05/16/14 02:57	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: DCP PLANT TO LEA STATION 6" SEC. 31

Work Orders: 485077, Project ID: SRS #2009-084

Lab Batch #: 941148 Sample: 655595-1-BLK / BLK Batch: 1 Matrix: Water

mg/L Units: Date Analyzed: 05/15/14 20:05 SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021B **Found** Amount Recovery Limits Flags [A] [B] %R %R [D]**Analytes** 1,4-Difluorobenzene 0.0263 0.0300 80-120 88 4-Bromofluorobenzene 94 0.0282 0.0300 80-120

Lab Batch #: 941148 Sample: 655595-1-BKS / BKS Batch: 1 Matrix: Water

Units: mg/L **Date Analyzed:** 05/15/14 20:21 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021B Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0278 0.0300 93 80-120 4-Bromofluorobenzene 0.0332 0.0300 111 80-120

Lab Batch #: 941148 Sample: 655595-1-BSD / BSD Batch: 1 Matrix: Water

Units: mg/L Date Analyzed: 05/15/14 20:38 SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Units:	mg/L	Date Analyzed: 05/15/14 20:54	SU	RROGATE RE	ECOVERY S	STUDY	
	ВТІ	EX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	benzene		0.0288	0.0300	96	80-120	
4-Bromofluo	orobenzene		0.0347	0.0300	116	80-120	

Units:	mg/L	Date Analyzed: 05/15/14 21:11	SU	RROGATE RE	ECOVERY S	STUDY	
	ВТЕ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenz	zene	Analy Co	0.0285	0.0300	95	80-120	
4-Bromofluorobe	enzene		0.0345	0.0300	115	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: DCP PLANT TO LEA STATION 6" SEC. 31

Project ID: SRS #2009-084 **Work Order #:** 485077

Date Prepared: 05/15/2014 **Date Analyzed:** 05/15/2014 **Analyst:** ARM

Lab Batch ID: 941148 **Sample:** 655595-1-BKS **Batch #:** 1 Matrix: Water

Units: mg/L		BLAN	K /BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUI	ΟY	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	< 0.00100	0.100	0.103	103	0.100	0.106	106	3	70-125	25	
Toluene	< 0.00200	0.100	0.104	104	0.100	0.106	106	2	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.111	111	0.100	0.114	114	3	71-129	25	
m,p-Xylenes	< 0.00200	0.200	0.229	115	0.200	0.235	118	3	70-131	25	
o-Xylene	< 0.00100	0.100	0.115	115	0.100	0.118	118	3	71-133	25	

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: DCP PLANT TO LEA STATION 6" SEC. 31

Work Order #: 485077 Project ID: SRS #2009-084

Lab Batch ID: 941148 **QC- Sample ID:** 485068-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/15/2014 **Date Prepared:** 05/15/2014 **Analyst:** ARM

Reporting Units: mg/L MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	< 0.00100	0.100	0.105	105	0.100	0.111	111	6	70-125	25	
Toluene	< 0.00200	0.100	0.106	106	0.100	0.112	112	6	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.114	114	0.100	0.119	119	4	71-129	25	
m,p-Xylenes	< 0.00200	0.200	0.234	117	0.200	0.245	123	5	70-131	25	
o-Xylene	< 0.00100	0.100	0.117	117	0.100	0.123	123	5	71-133	25	

Laboratori	57	-0	•	-
Laboratori				
	Lab	oral	tor	ie

CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800 Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

IAR	W.O#:	
	VV. O # .	

Page_ 1 of 1

* Contain	er T	ype Codes
al Amber	ES	Encore Sampler
al Clear	TS	TerraCore Sampler
Pre-preserved	I AC	Air Canister
ass Amber	TB	Tedlar Bag
ass Clear	ZB	Zip Lock Bag
astic Amber	PC	Plastic Clear

Final 1.000

Page 11 of 12

VA Vial Amber VC Vial Clear

VP Vial Pre-presery GA Glass Amber GC Glass Clear Field billable Hrs: Company: PA Plastic Amber Basin Environmental Service Technologies, LLC Phone: (575)396-2378 PC Plastic Clear TAT Work Days = D Need results by: Time: Address: 3100 Plains Hwy. Fax: (575)396-1429 Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1Gal City: 40ml, 125 ml, 250 ml, 500 ml, 1L, Other State: NM Lovington Zip: 88260 **ANALYSES REQUESTED** ** Preservative Type Codes PM/Attn: Ben Arguijo Email: cjbryant@paalp.com, Cont Type VP bjarguijo@basinenv.com GA VC A. None E. HCL Project ID: I. Ice DCP Plant to Lea Station 6" Sec. 31 PO#: B. HNO₃ F. MeOH J. MCAA Pres Type* PAA-C. Bryant SRS #2009-084 H₂SO₄ G. Na₂S₂O₃ K. ZnAc&NaOH E,I D. NaOH H. NaHSO, L Asbc Acid&NaOH Invoice To: Quote #: Camille Bryant Plains All American Example atiles by 8260 ^ Matrix Type Codes Sampler Signature: Circle One Event: Daily Weekly Monthly Quartely BTEX GW Ground Water WW Waste Water S Soil/Sediment/Solid W Wipe PAH Semi-Annual Annual N/A Volatiles | DW Drinking Water # SW Surface Water O Oil Collect Collect Sample Matrix OW Ocean/Sea Water T Tissue Sample ID PL Product-Liquid Date U Urine Time Code ^ PS Product-Solid B Blood SL Sludge # Cont Lab Only: **REMARKS** MW-2 5/8/14/1330 X GW 3 MW-3 X GW 3 MW-4 GW 3 MW-5 X GW 3 5 MW-6 GW PAHT-notreceived 4 6 8 9 0 Reg. Program / Clean-up Std STATE for Certs & Regs QA/QC Level & Certification **EDDs** COC & Labels Coolers Temp °C Lab Use Only CTLs TRRP DW NPDES LPST DryCln YES NO N/A FL TX GA NC SC NJ PA OK LA 1 2 3 4 CLP AFCEE CAPP ADaPT SEDD ERPIMS Other: Match Incomplete AL NM Other: NELAC DoD-ELAP Other: Non-Conformances found? XLS Other: Absent Unclear 2 Relinquished by Samples intact upon arrival? Affiliation Date Time Received by Affiliation Date Time Received on Wet Ice? abeled with proper preservatives? eceived within holding time? Xenco Custody seals intact? VOCs rec'd w/o headspace? 3 Proper containers used? pH verified-acceptable, excl VOCs Received on time to meet HTs?

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330 FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

C.O.C. Serial #



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 05/09/2014 03:30:00 PM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Work Order #: 485077

Temperature Measuring device used:

San	nple Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	11	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/	cooler? No	
#5 Custody Seals intact on sample bottles?	No	
#6 *Custody Seals Signed and dated?	No	
#7 *Chain of Custody present?	Yes	
#8 Sample instructions complete on Chain of Cu	stody? Yes	
#9 Any missing/extra samples?	No	
#10 Chain of Custody signed when relinquished/	received? Yes	
#11 Chain of Custody agrees with sample label(s	s)? Yes	
#12 Container label(s) legible and intact?	Yes	
#13 Sample matrix/ properties agree with Chain	of Custody? Yes	
#14 Samples in proper container/ bottle?	Yes	
#15 Samples properly preserved?	Yes	
#16 Sample container(s) intact?	Yes	
#17 Sufficient sample amount for indicated test(s	s)? Yes	
#18 All samples received within hold time?	Yes	
#19 Subcontract of sample(s)?	Yes	
#20 VOC samples have zero headspace (less th	an 1/4 inch bubble)? Yes	
#21 <2 for all samples preserved with HNO3,HC	L, H2SO4? Yes	
#22 >10 for all samples preserved with NaAsO2-	+NaOH, ZnAc+NaOH? No	

Must be c	ompleted for after-hours	delivery of samples prior to place	cing in the refrigerator	
Analyst:	PH De	vice/Lot#:		
Checklist com	Checklist completed b	y: Mmy Moah Kelsey Brooks	Date: 05/09/2014	
	Checklist reviewed by	r: Mms Hoah Kelsey Brooks	Date: 05/09/2014	

Analytical Report 485474

for PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo
DCP Plant to Lea Station 6" Sec. 31
SRS #2009-084
21-MAY-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

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)





21-MAY-14

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

Reference: XENCO Report No(s): 485474

DCP Plant to Lea Station 6" Sec. 31

Project Address: NM

Ben Arguijo:

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(s) 485474. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 485474 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, Hoah

Kelsey Brooks

Project Manager

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Sample Cross Reference 485474



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6	W	05-13-14 14:30		485474-001



CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: DCP Plant to Lea Station 6" Sec. 31

 Project ID:
 SRS #2009-084
 Report Date:
 21-MAY-14

 Work Order Number(s):
 485474
 Date Received:
 05/14/2014

San	mple receipt non conformanc	es and comments	::	
San	mple receipt non conformanc	es and comments	s per sample:	
Non	ne			



Project Location: NM

Certificate of Analysis Summary 485474

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: SRS #2009-084

Project Name: DCP Plant to Lea Station 6" Sec. 31

Contact: Ben Arguijo

Report Date: 21-MAY-14

Date Received in Lab: Wed May-14-14 12:00 pm

Project Manager: Kelsey Brooks

	Lab Id:				
	Lab Ia:	485474-001			
Analysis Paguastad	Field Id:	MW-6			
Analysis Requested	Depth:				
	Matrix:	WATER			
	Sampled:	May-13-14 14:30			
	Extracted:	May-16-14 15:30			
SUB: E871002	Analyzed:	May-19-14 16:19			
	Units/RL:	mg/L RL			
Acenaphthene		ND 0.0000510			
Acenaphthylene		ND 0.0000510			
Anthracene		ND 0.0000510			
Benzo(a)anthracene		ND 0.0000510			
Benzo(a)pyrene		ND 0.0000510			
Benzo(b)fluoranthene		ND 0.0000510			
Benzo(g,h,i)perylene		ND 0.0000510			
Benzo(k)fluoranthene		ND 0.0000510			
Chrysene		ND 0.0000510			
Dibenz(a,h)anthracene		ND 0.0000510			
Dibenzofuran		ND 0.0000510			
Fluoranthene		ND 0.0000510			
Fluorene		ND 0.0000510			
Indeno(1,2,3-c,d)Pyrene		ND 0.0000510			
Naphthalene		ND 0.000510			
Phenanthrene		ND 0.0000510			
Pyrene		ND 0.0000510			

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

Kelsey Brooks Project 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.
- ** 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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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	Phone	Fax
4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 485474, **Project ID:** SRS #2009-084

Lab Batch #: 941130 **Sample:** 485474-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/l	Date Analyzed: 05/19/14 16:19	SU	RROGATE RE	ECOVERY S	STUDY	
	PAHs by GCMS SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5		0.599	1.00	60	35-114	
2-Fluorobiphenyl		0.562	1.00	56	43-116	
Terphenyl-D14		0.680	1.00	68	33-141	

Lab Batch #: 941130 Sample: 655514-1-BLK / BLK Batch: 1 Matrix: Water

Units: mg/L Date Analyzed: 05/16/14 12:00	SU	RROGATE RI	ECOVERY S	STUDY	
PAHs by GCMS SIM	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
Nitrobenzene-d5	0.683	1.00	68	35-114	
2-Fluorobiphenyl	0.665	1.00	67	43-116	
Terphenyl-D14	0.748	1.00	75	33-141	

Lab Batch #: 941130 Sample: 655514-1-BKS / BKS Batch: 1 Matrix: Water

Units: m	ng/L Date Analyzed: 05/16/14 12:17	SU	RROGATE R	ECOVERY	STUDY	
	PAHs by GCMS SIM	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
Nitrobenzene-d5		0.690	1.00	69	35-114	
2-Fluorobiphenyl		0.685	1.00	69	43-116	
Terphenyl-D14		0.810	1.00	81	33-141	

Lab Batch #: 941130 Sample: 655514-1-BSD / BSD Batch: 1 Matrix: Water

Units: mg/L Date Analyzed: 05/16/14 16:07	SU	RROGATE RI	ECOVERY S	STUDY	
PAHs by GCMS SIM	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
Nitrobenzene-d5	0.698	1.00	70	35-114	
2-Fluorobiphenyl	0.684	1.00	68	43-116	
Terphenyl-D14	0.797	1.00	80	33-141	

Surrogate Recovery [D] = 100 * A / B

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

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



mg/L

Units:

BS / BSD Recoveries

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY



Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 485474 Project ID: SRS #2009-084

Analyst: PKH Date Prepared: 05/15/2014 Date Analyzed: 05/16/2014

Lab Batch ID: 941130Sample: 655514-1-BKSBatch #: 1Matrix: Water

0		DLAM	K/DLANK)1 11XL2 / 1				RECOVI			
PAHs by GCMS SIM Analytes	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
Acenaphthene	< 0.0000500	0.00100	0.000610	61	0.00100	0.000616	62	1	57-90	25	
Acenaphthylene	< 0.0000500	0.00100	0.000633	63	0.00100	0.000617	62	3	47-95	25	
Anthracene	< 0.0000500	0.00100	0.000638	64	0.00100	0.000633	63	1	56-90	25	
Benzo(a)anthracene	< 0.0000500	0.00100	0.000792	79	0.00100	0.000798	80	1	51-100	25	
Benzo(a)pyrene	< 0.0000500	0.00100	0.000706	71	0.00100	0.000744	74	5	49-97	25	
Benzo(b)fluoranthene	< 0.0000500	0.00100	0.000794	79	0.00100	0.000781	78	2	41-114	25	
Benzo(g,h,i)perylene	< 0.0000500	0.00100	0.000721	72	0.00100	0.000728	73	1	51-105	25	
Benzo(k)fluoranthene	< 0.0000500	0.00100	0.000648	65	0.00100	0.000647	65	0	54-103	25	
Chrysene	< 0.0000500	0.00100	0.000734	73	0.00100	0.000736	74	0	60-101	25	
Dibenz(a,h)anthracene	< 0.0000500	0.00100	0.000655	66	0.00100	0.000786	79	18	50-109	25	
Dibenzofuran	< 0.0000500	0.00100	0.000615	62	0.00100	0.000613	61	0	55-91	25	
Fluoranthene	< 0.0000500	0.00100	0.000688	69	0.00100	0.000657	66	5	58-93	25	
Fluorene	< 0.0000500	0.00100	0.000626	63	0.00100	0.000598	60	5	58-93	25	
Indeno(1,2,3-c,d)Pyrene	< 0.0000500	0.00100	0.000666	67	0.00100	0.000709	71	6	52-108	25	
Naphthalene	< 0.000500	0.00100	0.000627	63	0.00100	0.000638	64	2	51-100	25	
Phenanthrene	< 0.0000500	0.00100	0.000721	72	0.00100	0.000717	72	1	43-97	25	
Pyrene	< 0.0000500	0.00100	0.000758	76	0.00100	0.000753	75	1	51-95	25	

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

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CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800 Hobbs: 4008 N Grimes Hobbs, NM 88240 (575)392-7550

LAB W O # ·

Page 1 of 1 0#: 485474

VA Vial Amber ES Encore Sampler
VC Vial Clear TS TerraCore Sampler
VP Vial Pre-preserved AC Air Canister

* Container Type Codes

Environme	ntal Asbestos Radiochemistry		,										Field h	oillable l	dre :	100		1 1	GC Glass Clear ZB Z	edlar Bag 'ip Lock Bag
Comp	any: Basin Environmental Service Tech	nologies, LL	.c	Phone:	(575)396-2	378	TAT W	ork Da	ys = D	Need r	esults l		Jillable I	115.	Tim	ne:	***************************************	PA Plastic Amber PC F PC Plastic Clear Other	Plastic Clear
Addre	ss: 3100 Plains Hwy.			Fax:	(575)396-1	429			11	drs 1D 2			7D 10	D 14D				Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 40ml, 125 ml, 250 ml, 500 ml, 1L,	, 1Gal
City:	Lovington		State: NM	Zip:	8826	60							ES RE			- u.u			** Preservative Ty	
PM/At	tn: Ben Arguijo		Email:	cjbryant@ bjarguijo@				Cont Type *	GA								T		A. None E. HCL I. Ice	
Projec	t ID: DCP Plant to Lea Station 6" Sec. 3 SRS #2009-084	31		PO#:	PAA-	C. Brya	int	Pres Type** E, I	ı										B. HNO_3 F. $MeOH$ J. MO_4 G. $Na_2S_2O_3$ K. $ZnAC$ D. $NaOH$ H. $NaHSO_4$ L As	&NaOH
Invoice	e To: Camille Bryant Plains All Ame	erican		Quote #	:			09										le in PAH Only if	O	0-1
Sampl	er Signature	Circle One Semi-Annua	Event: Daily al Annual	Weekly N/A	Mont	hly Qu	uartely	Example Volatiles by 8260	РАН									Hold Sample Run sst TPH Or	WW Waste Water W Wip DW Drinking Water A Air	il/Sediment/Solid
Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	di di	Integrity OK (Y/N)	Total # of containers									-		Hol (CALL) on Highest	SW Surface Water O Oil OW Ocean/Sea Water T Tiss PL Product-Liquid U Urir PS Product-Solid B Bloc SL Sludge Other	ne
0)								# Cont	Lab Onl	y:									REMARK	S
1	MW-6	5/13/14	1430	GW			1		X											
2																				
3																				
4																				
5																				
6																				
7	7																			
' 8																				
9																				
0]	Reg. Program / Clean-up Std	STATE	for Certs &	Pogs	0	NOCI	syal	& Certifica	-6!		FDD		2000							
CTLs	TRRP DW NPDES LPST DryCln	FL TX GA N	NC SC NJ PA		1 <u>2</u>	3 4	CLP	AFCEE QAF			EDDs SEDD E	RPIMS	Match I	Labels	12	Ĵ.	Temp °C		Lab Use Only Non-Conformances found?	YES NO N/A
Other:	, , Relinquished by	AL NM Othe	er: Affiliat	ion		DoD-	ELAP	Other: Time	a	XLS Othe	er: eceived l	hv	Absent Affilia	Unclear	1 N	2	3 Tin		Samples intact upon arrival?	
1	Milde		Basias En			營//	E's	1630		21	\sim	enot	M	(5-14			207	Received on Wet Ice? Labeled with proper preservatives?	
2					,	-/-		, , , ,		Mi	non	IDDI	(V 8	inco	CIK	1110	7.0	-0,	Received within holding time? Custody seals intact? VOCs rec'd w/o headspace?	
3											· W_A_\	VVVV	-1/1	y w	دبب	1112	(,)	0	Proper containers used? Proper containers used? Proper verified-acceptable, excl VOCs?	
4																			Received on time to meet HTs?	
3&A L	aboratories: Hobbs 575-392-7550	Dallas 214	4-902-0300	Housto	on 28	1-242	-4200	Odessa	432-56	3-1800	San An	tonio 2	10-500-	3334 D	hooniy	602 42	7 0220		COC Sorial #	

FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 05/14/2014 12:00:00 PM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Work Order #: 485474

Temperature Measuring device used:

	' 4		
		Sample Receipt Checklist	Comments
#1 *Temperature of co	ooler(s)?		2
#2 *Shipping containe	r in good condition	?	Yes
#3 *Samples received	on ice?		Yes
#4 *Custody Seals inta	act on shipping co	ntainer/ cooler?	No
#5 Custody Seals inta	ct on sample bottle	es?	No
#6 *Custody Seals Sig	ned and dated?		No
#7 *Chain of Custody	present?		Yes
#8 Sample instructions	s complete on Cha	nin of Custody?	Yes
#9 Any missing/extra s	samples?		No
#10 Chain of Custody	signed when reline	quished/ received?	Yes
#11 Chain of Custody	agrees with samp	le label(s)?	Yes
#12 Container label(s)	legible and intact	?	Yes
#13 Sample matrix/ pr	operties agree with	h Chain of Custody?	Yes
#14 Samples in prope	r container/ bottle?		Yes
#15 Samples properly	preserved?		Yes
#16 Sample container	(s) intact?		Yes
#17 Sufficient sample	amount for indicat	ed test(s)?	Yes
#18 All samples receiv	ed within hold tim	e?	Yes
#19 Subcontract of sa	mple(s)?		No
#20 VOC samples hav	ve zero headspace	e (less than 1/4 inch bubble)?	No
#21 <2 for all samples	preserved with HI	NO3,HCL, H2SO4?	No
#22 >10 for all sample	s preserved with N	NaAsO2+NaOH, ZnAc+NaOH?	No
	for after-hours de		
·		elivery of samples prior to placing	in the refrigerator
Analyst:	PH Device	e/Lot#:	in the refrigerator
Analyst:	PH Device		Date: 05/15/2014

Analytical Report 491035

for PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo
DCP Plant to Lea Station 6' Sec 31
SRS# 2009-084
18-AUG-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

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)





18-AUG-14

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

Reference: XENCO Report No(s): 491035

DCP Plant to Lea Station 6' Sec 31 Project Address: Lea County, NM

Ben Arguijo:

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(s) 491035. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 491035 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, Moah

Kelsey Brooks

Project Manager

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Sample Cross Reference 491035



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6' Sec 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	08-05-14 12:45		491035-001
MW-3	W	08-05-14 13:00		491035-002
MW-4	W	08-05-14 13:30		491035-003
MW-5	W	08-05-14 13:15		491035-004
MW-6	W	08-05-14 13:45		491035-005



CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: DCP Plant to Lea Station 6' Sec 31

 Project ID:
 SRS# 2009-084
 Report Date:
 18-AUG-14

 Work Order Number(s):
 491035
 Date Received:
 08/07/2014

Sa	le receipt non conformances and comments:	
Sai	le receipt non conformances and comments per sample:	
No		



Certificate of Analysis Summary 491035

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: SRS# 2009-084

Project Name: DCP Plant to Lea Station 6' Sec 31

Contact: Ben Arguijo

Report Date: 18-AUG-14

Date Received in Lab: Thu Aug-07-14 11:21 am

Project Location: Lea County, NM Project Manager: Kelsey Brooks

	Lab Id:	491035-001		491035-0	002	491035-0	003	491035-	004	491035-0	005	
Analysis Requested	Field Id:	MW-2		MW-3		MW-4	1	MW-	5	MW-6	5	
Anaiysis Kequesieu	Depth:											
	Matrix:	WATER		WATE	R	WATE	R	WATE	R	WATE	R	
	Sampled:	Aug-05-14 12:	:45	Aug-05-14	13:00	Aug-05-14	13:30	Aug-05-14	13:15	Aug-05-14	13:45	
BTEX by EPA 8021B	Extracted:	Aug-15-14 17:	:00	Aug-15-14	17:00	Aug-15-14	17:00	Aug-15-14	17:00	Aug-15-14	17:00	
	Analyzed:	Aug-16-14 00:	:58	Aug-16-14	01:15	Aug-16-14	01:31	Aug-16-14	19:07	Aug-16-14	02:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	
Benzene		ND 0.	.00100	ND	0.00100	0.00685	0.00100	ND	0.00100	ND	0.00100	
Toluene		ND 0.	.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	
Ethylbenzene		ND 0.	.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
m_p-Xylenes		ND 0.	.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	
o-Xylene		ND 0.	.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
Total Xylenes		ND 0.	.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	
Total BTEX		ND 0.	.00100	ND	0.00100	0.00685	0.00100	ND	0.00100	ND	0.00100	

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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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.
- ** 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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



4-Bromofluorobenzene

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6' Sec 31

Project ID: SRS# 2009-084 Work Orders: 491035,

Lab Batch #: 948384 Matrix: Water Sample: 491035-001 / SMP Batch:

Units: mg/L	Date Analyzed: 08/16/14 00:58	SURROGATE RECOVERY STUDY						
B	ΓEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1,4-Difluorobenzene		0.0307	0.0300	102	80-120			
4-Bromofluorobenzene		0.0272	0.0300	91	80-120			

Matrix: Water **Lab Batch #:** 948384 Sample: 491035-002 / SMP Batch: 1

Units: mg/L **Date Analyzed:** 08/16/14 01:15 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021B Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0303 0.0300 101 80-120

0.0267

0.0300

80-120

89

Lab Batch #: 948384 Sample: 491035-003 / SMP Matrix: Water Batch:

Units: mg/L **Date Analyzed:** 08/16/14 01:31 SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0268	0.0300	89	80-120	

Sample: 491035-005 / SMP **Lab Batch #:** 948384 Batch: Matrix: Water

Units:	mg/L	Date Analyzed: 08/16/14 02:20	SU	RROGATE R	ECOVERY S	STUDY	
	ВТЕ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene		0.0298	0.0300	99	80-120	
4-Bromoflu	orobenzene		0.0267	0.0300	89	80-120	

Lab Batch #: 948384 **Sample:** 491035-004 / SMP Batch: Matrix: Water

Units: mg/L	Date Analyzed: 08/16/14 19:07	SURROGATE RECOVERY STUDY						
ВТЕ	EX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	Tillary tes	0.0286	0.0300	95	80-120			
4-Bromofluorobenzene		0.0253	0.0300	84	80-120			

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6' Sec 31

Project ID: SRS# 2009-084 **Work Orders** : 491035,

Lab Batch #: 948384 Matrix: Water **Sample:** 660133-1-BLK / BLK Batch: 1

Units: mg/L	Date Analyzed: 08/15/14 21:24	SURROGATE RECOVERY STUDY						
ВТІ	EX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
	Analytes			[2]				
1,4-Difluorobenzene		0.0300	0.0300	100	80-120			
4-Bromofluorobenzene		0.0261	0.0300	87	80-120			

Lab Batch #: 948384 **Sample:** 660133-1-BKS / BKS Batch: Matrix: Water

Units:	mg/L	Date Analyzed: 08/15/14 21:40	SU	RROGATE RI	ECOVERY S	STUDY	
	BTI	EX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	robenzene		0.0299	0.0300	100	80-120	
4-Bromoflu	uorobenzene		0.0297	0.0300	99	80-120	

Sample: 660133-1-BSD / BSD **Lab Batch #:** 948384 Batch: 1 Matrix: Water

Date Analyzed: 08/15/14 21:57 **Units:** mg/L SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Sample: 491033-001 S / MS **Lab Batch #:** 948384 Batch: Matrix: Water

Units:	mg/L	Date Analyzed: 08/15/14 22:13	SURROGATE RECOVERY STUDY							
	ВТЕ	EX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1,4-Difluorol	benzene		0.0301	0.0300	100	80-120				
4-Bromofluo	robenzene		0.0298	0.0300	99	80-120				

Lab Batch #: 948384 **Sample:** 491033-001 SD / MSD Batch: Matrix: Water

Units: mg/L Date Ans	alyzed: 08/15/14 22:30	SURROGATE RECOVERY STUDY										
BTEX by EPA 8	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags							
Analytes				[D]								
1,4-Difluorobenzene		0.0308	0.0300	103	80-120							
4-Bromofluorobenzene		0.0307	0.0300	102	80-120							

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6' Sec 31

Project ID: SRS# 2009-084 **Work Order #:** 491035

Date Prepared: 08/15/2014 **Date Analyzed:** 08/15/2014 **Analyst:** ARM

Lab Batch ID: 948384 **Sample:** 660133-1-BKS **Batch #:** 1 Matrix: Water

Units: mg/L	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]					
Benzene	< 0.00100	0.100	0.104	104	0.100	0.104	104	0	70-125	25		
Toluene	< 0.00200	0.100	0.103	103	0.100	0.103	103	0	70-125	25		
Ethylbenzene	< 0.00100	0.100	0.110	110	0.100	0.109	109	1	71-129	25		
m_p-Xylenes	< 0.00200	0.200	0.215	108	0.200	0.212	106	1	70-131	25		
o-Xylene	< 0.00100	0.100	0.104	104	0.100	0.103	103	1	71-133	25		

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: DCP Plant to Lea Station 6' Sec 31

Work Order #: 491035 Project ID: SRS# 2009-084

Lab Batch ID: 948384 **QC- Sample ID:** 491033-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/15/2014 **Date Prepared:** 08/15/2014 **Analyst:** ARM

Reporting Units: mg/L MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	< 0.00100	0.100	0.104	104	0.100	0.110	110	6	70-125	25	
Toluene	< 0.00200	0.100	0.103	103	0.100	0.109	109	6	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.108	108	0.100	0.116	116	7	71-129	25	
m_p-Xylenes	< 0.00200	0.200	0.211	106	0.200	0.227	114	7	70-131	25	
o-Xylene	< 0.00100	0.100	0.102	102	0.100	0.109	109	7	71-133	25	

XEN	(0
Laborat	ories

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Page_	1	_of_	1_		
3 W.O#:			40	1	035
hillable Hre			-		

	* Containe	er Ty	ype Codes
VA	Vial Amber	ES	Encore Sampler
VC	Vial Clear	TS	TerraCore Sampler
VP	Vial Pre-preserved	AC	Air Canister
GA		TB	Tedlar Bag
GC	Glass Clear	ZB	Zip Lock Bag
PA	Plastic Amber	PC	Plastic Clear
PC	Plastic Clear		
Oth	or		

reionmental Abestos Radiochemisty										GA Glass Amber TB Tedlar Bag GC Glass Clear ZB Zip Lock Bag PA Plastic Amber PC Plastic Clear										
Compar	ny: Basin Environmental Service Tec	hnologies, LL	С	Phone: (575)396-2378			78	TAT W	ork Day	s = D	Need re	esults b	sults by: Time:						PC Plastic Clear Other	
Address	: 3100 Plains Hwy.			Fax:	(575)	396-142	29		Std (5-	7D) /5Hr	rs 1D 2	D 3D 4	4D <u>5D</u>	<u>7D</u> 10D	14D	Other_		_	Size(s): 2oz, 4oz, 8oz, 16oz, 32oz , 1 40ml, 125 ml, 250 ml, 500 ml, 1L, C	Gal
City:	Lovington		State: NM	Zip:	88260)				/	ANA	ALYSE	SRE	QUES	TED				** Preservative Typ	
PM/Attn	Ben Arguijo		Email:	cjbryant@ bjarguijo@				Cont Type * VC	VP	40%									A. None E. HCL I. Ice	
Project I	D: DCP Plant to Lea Station 6" Sec. SRS #2009-084	31		PO#: PAA-C. Bryant			Pres Type** E, I E, I										B. HNO ₃ F. MeOH J. MC, H ₂ SO ₄ G. Na ₂ S ₂ O ₃ K. ZnAc& D. NaOH H. NaHSO ₄ L Ast	NaOH		
nvoice '	To: Camille Bryant Plains All Am	erican		Quote #:				260										mple Run PAH Only If	^ Matrix Type C	odes
Sampler	Signature:	Circle One Semi-Annua	Event: Daily I Annual	Weekly N/A	Month	ly Qua	artely	ample as by 8	BTEX			40	a.					27 (SERVICE SERVICE SE	GW Ground Water S Soil/S WW Waste Water W Wipe DW Drinking Water A Air SW Surface Water O Oil	Sediment/Solid
Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	containers	Example Volatiles by 8260		3 **								Hold Sa (CALL) on Highest TPH	OW Ocean/Sea Water T Tissu PL Product-Liquid U Urine PS Product-Solid B Blood SL Sludge	
ιχ								# Cont	Lab Only	:									REMARKS	3
1	MW-2	8.5.14	12:45	GW			3		X											
2	MW-3	8-5-14	13:00	GW			3		X											
_3	MW-4	8-5-14	15230	GW			3		X											2
_4	MW-5	8.5.14	13:15	GW			3		X						10					
_5	MW-6	85-14	13248	GW		1	3		Χ											
6							ey.													
7																				
8																				
_9																				
0																				
	Reg. Program / Clean-up Std		for Certs &					& Certific			EDDs		COC &	Labels	. (Coolers	Temp °C			YES NO N/A
CTLs 7 Other:	TRRP DW NPDES LPST DryCin	FL TX GA I				DoD-I				XLS Othe			Absent	ncomplete Unclear	1 1	2	33	0	Non-Conformances found? Samples intact upon arrival?	
1	Relinquished by		Affilia	-	0	Date	IJ	Tim			eceived		Affilia			ate	Tim		Received on Wet Ice? Labeled with proper preservatives?	
2	Valy Tolh		Basin En	Viron.	6-	5-/	7	4:38 p	m	Je ()	V VC	sendo	MS		87	114		21	Received within holding time? Custody seals intact?	
3							\dashv			1-1	NR,	>	Xer	100	011	117	11.	~==	VOCs rec'd w/o headspace? Proper containers used?	
4							\dashv												pH verified-acceptable, excl VOCs? Received on time to meet HTs?	
201		0 0 11 04	4 000 000			24 040	100/		100 5	1000			10 =00			222 12			0.0.0.0	

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330 FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

C.O.C. Serial #

Execution of this document by client creates a legal and binding agreement between client and Xenco for analytical and testing services provided by Xenco to client under Xenco's standard terms and conditions unless previously agreed in writing. Terms of payment are Net 30 days, and all past due amounts shall accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full. Revision Date: Nov 12, 2009



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 08/07/2014 11:21:00 AM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Work Order #: 491035

Temperature Measuring device used:

	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		1
#2 *Shipping container in good condition?	?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping con	tainer/ cooler?	No
#5 Custody Seals intact on sample bottle	s?	No
#6 *Custody Seals Signed and dated?		No
#7 *Chain of Custody present?		Yes
#8 Sample instructions complete on Chai	in of Custody?	Yes
#9 Any missing/extra samples?		No
#10 Chain of Custody signed when relinq	uished/ received?	Yes
#11 Chain of Custody agrees with sample	e label(s)?	Yes
#12 Container label(s) legible and intact?		Yes
#13 Sample matrix/ properties agree with	Chain of Custody?	Yes
#14 Samples in proper container/ bottle?		Yes
#15 Samples properly preserved?		Yes
#16 Sample container(s) intact?		Yes
#17 Sufficient sample amount for indicate	ed test(s)?	Yes
#18 All samples received within hold time	9?	Yes
#19 Subcontract of sample(s)?		No
#20 VOC samples have zero headspace	(less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HN	IO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with N	aAsO2+NaOH, ZnAc+NaOH?	No
Must be completed for after-hours de Analyst:	livery of samples prior to placing in PH Device/Lot#:	n the refrigerator
Checklist completed by: Checklist reviewed by:	Mmy Moah Kelsey Brooks	Date: 08/07/2014 Date:

Analytical Report 497002

for PLAINS ALL AMERICAN EH&S

Project Manager: Ben Arguijo
DCP Plant to Lea Station 6" Sec. 31
SRS#2009-084
13-NOV-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

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)





13-NOV-14

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

Reference: XENCO Report No(s): 497002

DCP Plant to Lea Station 6" Sec. 31 Project Address: Lea County, NM

Ben Arguijo:

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(s) 497002. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 497002 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, Hoah

Kelsey Brooks

Project Manager

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Sample Cross Reference 497002



PLAINS ALL AMERICAN EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	11-07-14 16:20		497002-001
MW-3	W	11-07-14 15:30		497002-002
MW-4	W	11-07-14 15:00		497002-003
MW-5	W	11-07-14 14:30		497002-004
MW-6	W	11-07-14 15:40		497002-005



CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: DCP Plant to Lea Station 6" Sec. 31

 Project ID:
 SRS#2009-084
 Report Date:
 13-NOV-14

 Work Order Number(s):
 497002
 Date Received:
 11/12/2014

Sar	mple receipt non conformances a	and comments:	
Sar	nple receipt non conformances ε	and comments per sample:	
Noi	ne		



Project Id: SRS#2009-084

Contact: Ben Arguijo

Project Location: Lea County, NM

Certificate of Analysis Summary 497002

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: DCP Plant to Lea Station 6" Sec. 31

Report Date: 13-NOV-14

Project Manager: Kelsey Brooks

Date Received in Lab: Wed Nov-12-14 01:55 pm

Project Manager: Keisey drooks												
	Lab Id:	497002-0	01	497002-0	002	497002-0	003	497002-0	004	497002-0	005	
Analysis Requested	Field Id:	MW-2		MW-3	3	MW-4	1	MW-5	5	MW-6	5	
Anatysis Requestea	Depth:											
	Matrix:	WATE	₹	WATE	R	WATE	R	WATE	R	WATE	R	
	Sampled:	Nov-07-14	16:20	Nov-07-14	15:30	Nov-07-14	15:00	Nov-07-14	14:30	Nov-07-14	15:40	
BTEX by EPA 8021	Extracted:	Nov-12-14	15:00									
	Analyzed:	Nov-12-14	21:10	Nov-12-14	21:27	Nov-12-14	22:15	Nov-13-14	08:10	Nov-12-14	22:48	
	Units/RL:	mg/L	RL									
Benzene		ND	0.00100	ND	0.00100	0.00471	0.00100	ND	0.00100	ND	0.00100	
Toluene		ND	0.00200									
Ethylbenzene		ND	0.00100									
m_p-Xylenes		ND	0.00200									
o-Xylene		ND	0.00100									
Xylenes, Total		ND	0.00100									
Total BTEX		ND	0.00100	ND	0.00100	0.00471	0.00100	ND	0.00100	ND	0.00100	

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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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.
- ** 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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	Phone	Fax
4143 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave. Phoenix, AZ 85040	(602) 437-0330	



4-Bromofluorobenzene

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Project ID: SRS#2009-084 Work Orders: 497002,

Lab Batch #: 955234 Matrix: Water **Sample:** 497002-001 / SMP Batch:

Units: mg/L	Date Analyzed: 11/12/14 21:10	SU	SURROGATE RECOVERY STUDY								
1	BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzene		0.0302	0.0300	101	80-120						
4-Bromofluorobenzene		0.0295	0.0300	98	80-120						

Matrix: Water Lab Batch #: 955234 Sample: 497002-002 / SMP Batch: 1

Units: mg/L Date Analyzed: 11/12/14 21:27 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021 Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0297 0.0300 99 80-120

0.0290

0.0300

80-120

97

Lab Batch #: 955234 Sample: 497002-003 / SMP Matrix: Water Batch:

Units: mg/L Date Analyzed: 11/12/14 22:15 SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Sample: 497002-005 / SMP **Lab Batch #:** 955234 Batch: Matrix: Water

Units:	nits: mg/L Date Analyzed: 11/12/14 22:48			SURROGATE RECOVERY STUDY									
	ВТ	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
		Analytes			נען								
1,4-Difluor	robenzene		0.0295	0.0300	98	80-120							
4-Bromoflu	uorobenzene		0.0284	0.0300	95	80-120							

Lab Batch #: 955234 Sample: 497002-004 / SMP Batch: Matrix: Water

Units:	ng/L	Date Analyzed: 11/13/14 08:10	SU	SURROGATE RECOVERY STUDY								
		by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
	F	Analytes			[D]							
1,4-Difluorobenzo	ene		0.0307	0.0300	102	80-120						
4-Bromofluorobe	nzene		0.0296	0.0300	99	80-120						

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Orders : 497002, **Project ID:** SRS#2009-084

Lab Batch #: 955234 Sample: 664359-1-BLK / BLK Batch: 1 Matrix: Water

mg/L **Date Analyzed:** 11/12/14 17:23 Units: SURROGATE RECOVERY STUDY True Amount Control BTEX by EPA 8021 **Found** Amount Recovery Limits Flags [A] [B] %R %R [D]**Analytes** 1,4-Difluorobenzene 0.0295 0.0300 80-120 98 4-Bromofluorobenzene 0.0292 0.0300 97 80-120

Lab Batch #: 955234 Sample: 664359-1-BKS / BKS Batch: 1 Matrix: Water

Units: mg/L **Date Analyzed:** 11/12/14 17:40 SURROGATE RECOVERY STUDY **Amount** True Control BTEX by EPA 8021 Found Limits Amount Recovery Flags [A] [B] %R %R [D] **Analytes** 1,4-Difluorobenzene 0.0305 0.0300 102 80-120 4-Bromofluorobenzene 0.0322 0.0300 107 80-120

Lab Batch #: 955234 Sample: 664359-1-BSD / BSD Batch: 1 Matrix: Water

Units: mg/L Date Analyzed: 11/12/14 17:56 SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 955234 **Sample:** 496966-001 S / MS **Batch:** 1 **Matrix:** Water

Units:	mg/L	Date Analyzed: 11/12/14 18:12	SURROGATE RECOVERY STUDY								
	BT	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
		Analytes			[D]						
1,4-Difluor	robenzene		0.0307	0.0300	102	80-120					
4-Bromoflu	uorobenzene		0.0317	0.0300	106	80-120					

 Lab Batch #: 955234
 Sample: 496966-001 SD / MSD
 Batch: 1
 Matrix: Water

Units:	mg/L	Date Analyzed: 11/12/14 18:29	SU	RROGATE RI	ECOVERY S	STUDY	
	BTI	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluoro	benzene		0.0307	0.0300	102	80-120	
4-Bromoflu	orobenzene		0.0324	0.0300	108	80-120	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

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

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



Project Name: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 497002 Project ID: SRS#2009-084

Analyst: ARM **Date Prepared:** 11/12/2014 **Date Analyzed:** 11/12/2014

Lab Batch ID: 955234Sample: 664359-1-BKSBatch #: 1Matrix: Water

Units: mg/L BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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
Benzene	< 0.00100	0.100	0.0852	85	0.100	0.0858	86	1	70-125	25	
Toluene	< 0.00200	0.100	0.0921	92	0.100	0.0932	93	1	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.0991	99	0.100	0.0996	100	1	71-129	25	
m_p-Xylenes	< 0.00200	0.200	0.205	103	0.200	0.205	103	0	70-131	25	
o-Xylene	< 0.00100	0.100	0.0966	97	0.100	0.0969	97	0	71-133	25	

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: DCP Plant to Lea Station 6" Sec. 31

Work Order #: 497002 Project ID: SRS#2009-084

Lab Batch ID: 955234 **QC- Sample ID:** 496966-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 11/12/2014 Date Prepared: 11/12/2014 Analyst: ARM

Reporting Units: mg/L MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	%R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
Benzene	< 0.00100	0.100	0.0883	88	0.100	0.0870	87	1	70-125	25	
Toluene	< 0.00200	0.100	0.0956	96	0.100	0.0941	94	2	70-125	25	
Ethylbenzene	< 0.00100	0.100	0.103	103	0.100	0.101	101	2	71-129	25	
m_p-Xylenes	< 0.00200	0.200	0.212	106	0.200	0.208	104	2	70-131	25	
o-Xylene	< 0.00100	0.100	0.0983	98	0.100	0.0973	97	1	71-133	25	

5	E	N	C	0
La	bo	ra	to	ries

CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

Page 1 of 1

* Container Type Codes VA Vial Amber ES Encore Sampler
VC Vial Clear TS TerraCore Sampler
VP Vial Pre-preserved AC Air Canister

	PODDS: 4008 N Grimes ental Asbestos Rodiochemistry	HODDS, NM 882	40 (575)392-7	550					_					vv.Q # oillable ⊦			1/100	Ud,	GC Glass Clear ZB PA Plastic Amber PC	Tedlar Bag Zip Lock Bag Plastic Clear
Comp	pany: Basin Environmental Service Tec	hnologies, LL	С	Phone:	(575)	396-23	378	TAT W	ork Da	ys = D	Need	results I	oy:	1		Tim	e:		PC Plastic Clear Other	
Addre	ess: 3100 Plains Hwy.			Fax:	(575)	396-1	129		Std (5-	-7D) 5H	lrs 1D	2D 3D	4D <u>5D</u>	7D 101	D 14D	Other			Size(s): 2oz, 4oz, 8oz, 16oz, 32o; 40ml, 125 ml, 250 ml, 500 ml, 1l	z , 1Gal L, Other
City:	Lovington		State: NM	Zip:	8826	0				/			ES RE						** Preservative T	
M/A	ttn: Ben Arguijo		Email:	cjbryant@ bjarguijo@				Cont Type * VC	VP	GA	/	1							A. None E. HCL I. k	
-	ct ID: DCP Plant to Lea Station 6" Sec. SRS #2009-084	31		PO#:	PAA-	C. Brya	nt	Pres Type** E, I	E,I	1									B. HNO_3 F. $MeOH$ J. M_2SO_4 G. $Na_2S_2O_3$ K. ZnA D. $NaOH$ H. $NaHSO_4$ L. $Max = 10^{-2}$	MCAA C Ac&NaOH Asbc Acid&NaOH
	e To: Camille Bryant Plains All Am	erican		Quote #	:			560										le in PAH Only if	^ Matrix Type	Codes
amp	ler Signature:		Event: Daily I Annual		Month	nly Qu	artely	ample ss by 82	BTEX									d Samp Rt TPH		oil/Sediment/Solid /ipe ir
Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	m									Hol (CALL) on Highest	OW Ocean/Sea Water T Ti PL Product-Liquid U U PS Product-Solid B BI SL Sludge Other	ssue rine
Š								# Cont	Lab Onl	y:									REMARI	KS
_1	MW-2	11/7/14	1620	GW			3		X											
_2	MW-3	11/7/14	1530	GW			3		Χ											
_3	MW-4	11/7/14	1500	GW			3		Χ											
_4	MW-5	11/7/14	1430	GW			3		Χ											
_5	MW-6	11/7/14	1540	GW			3		Χ											
_6								pel i												
_7																				
_8																			# # # # # # # # # # # # # # # # # # #	
_9																		232		
_0																				
	Reg. Program / Clean-up Std	STATE	for Certs &	Regs	Q/	VQC	_evel	& Certifica	ation		EDDs	6.54	COC 8	Labels	C	oolers	Temp °C	: 1	Lab Use Only	YES NO N/A
TLs her:	TRRP DW NPDES LPST DryCln	FL TX GA N AL NM Othe	IC SC NJ PA er:	OK LA		3 4 DoD-		AFCEE QAF Other:	PР	ADaPT XLS Othe	SEDD E er:	ERPIMS	Match I Absent	ncomplete Unclear	1 *	2	3 JH	.01	Non-Conformances found? Samples intact upon arrival?	
4	Relinquished by		Affiliat	_	14	Date		Time		Re	eceived	by		ation	Da	te	Tin	ne	Received on Wet Ice? Labeled with proper preservatives?	
2	D:Saxton		Basin h		17/	#/19		1700)	1	1/1/	,	BASI	nEnvi	11/7	114	ma		Received within holding time? Custody seals intact?	
3	11/20 1 1 A		Basin	100000000000000000000000000000000000000	1///	1/19		1150	_	20/4	0	earl	12M	Sin	11-11	14	1/	50	VOCs rec'd w/o headspace? Proper containers used?	
4	DA Map mil		BASIN		141	1-19	2	1053	-	Ker!		20nou	1/ 01	->	11-1	1-14	10:	100	pH verified-acceptable, excl VOCs? Received on time to meet HTs?	
•										100	KW.)	IXX	n(0)	111	2/4/	133	551		

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330 FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

C.O.C. Serial #



Work Order #: 497002

XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 11/12/2014 01:55:00 PM

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

	Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?		1
#2 *Shipping container in good condition	?	Yes
#3 *Samples received on ice?		Yes
#4 *Custody Seals intact on shipping cor	ntainer/ cooler?	No
#5 Custody Seals intact on sample bottle	es?	No
#6 *Custody Seals Signed and dated?		No
#7 *Chain of Custody present?		Yes
#8 Sample instructions complete on Cha	in of Custody?	Yes
#9 Any missing/extra samples?		No
#10 Chain of Custody signed when relind	quished/ received?	Yes
#11 Chain of Custody agrees with sampl	e label(s)?	Yes
#12 Container label(s) legible and intact?	?	Yes
#13 Sample matrix/ properties agree with	n Chain of Custody?	Yes
#14 Samples in proper container/ bottle?		Yes
#15 Samples properly preserved?		Yes
#16 Sample container(s) intact?		Yes
#17 Sufficient sample amount for indicate		Yes
#18 All samples received within hold time	e?	Yes
#19 Subcontract of sample(s)?		No
#20 VOC samples have zero headspace	,	Yes
#21 <2 for all samples preserved with HN samples for the analysis of HEM or HEM-analysts.		Yes
#22 >10 for all samples preserved with N	laAsO2+NaOH, ZnAc+NaOH?	No
* Must be completed for after-hours de Analyst:	livery of samples prior to placing in PH Device/Lot#:	the refrigerator
Checklist completed by:	Kelsey Brooks Kelsey Brooks	Date: 11/12/2014
Checklist reviewed by:	Kelsey Brooks	Date: 11/12/2014

Appendix B 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

RECEIVED

Form C-141 Revised October 10, 2003

APR 2 9 2009 Submit 2 Copies to appropriate
HOBBSOCD istrict Office in accordance
with Rule 116 on back
side of form

										the same of the same of the same	n-te	
						OPERA		_(⊠ Init	ial Report	F	inal Re
Name of Co	ompany	Plains Pipe			-	Contact	Jason Henry					
Address				er City, Tx 79323			No. (575) 441-	1099				
Facility Nar	me	DCP Plant to	o Lea Stati	ion 6-inch Sec. 3	1	Facility Ty	e Pipeline					
Surface Ow	ner NM	SLO		Mineral O	wner				Lease 1	Vo.		
				LOCA	TIO	OF RE	LEASE		-			
Unit Letter K	Section 31	Township 20S	Range 37E	Feet from the	North/	South Line	Feet from the	East	West Line	County Lea		
	1		1	Latitude N 32	.52733	5° Longitude	W 103.2906*					
				NAT	URE	OF REL	EASE					
ype of Rele	ase Cr	ude Oil					Release 20 bbl	5	Volume F	Recovered () bbls	
Source of Re		Steel Pipelin	e				lour of Occurrence	e		Hour of Dis	covery	
		0' 0				Unknown		00000	04/02/200	9 15:00		
Was Immedia	ate Notice		Yes 🗍	No Not Re	quired	1	Whom? on 04/2		2-3 bbls ba	sed on sma	ll surface	stain)
By Whom?	Jason Hen				-	Date and I				d to reports		
Was a Water		ched?	. 17			If YES, Vo	olume Impacting t	he Wat	ercourse.			
		لسا	Yes 🛭	140								
		lem and Remed										
External cor the subject li	rosion of the	6" iach pipelir bbls/day and t	ne caused a		e pipel	ine is 45 psi.	The depth of th	oipeline se pipel	to mitigate	e the release elease point	. Through is appro	gbput f
External cor the subject li l' bgs. The l	rosion of (ine is 660) H2S conce	6" iach pipelir bbls/day and t	ne caused a the operati e crude is	Taken.* I release of cruding pressure of the less than 10 ppm	e pipel	ine is 45 psi.	The depth of th	oipeline se pipel	to mitigate ine at the r	e the release elease point	. Through is appro	gbput fi ximate
External cor the subject li 2' bgs. The l Describe Are	rosion of (ine is 660) HI2S conce	5" iach pipelir bbls/day and t intration in th and Cleanup /	ne caused a the operati e crude is Action Take	Taken.* I release of cruding pressure of the less than 10 ppm	e pipel and th	line is 45 psi, ne gravity of	The depth of the the crude is 65.	e pipel	ine at the r	elease point	is appro	ximate
External corhe subject III bgs. The III cscribe Area che released uidelines. hereby certifications all ublic health hould their our the environments.	rosion of (ine is 660); H2S conce a Affected crude res fy that the I operators or the envio	5" inch pipelin bbls/day and to entration in the and Cleanup / ulted in a sur- information gi are required to ironment. The have failed to a addition, NMO	the operative crude is Action Take face stain to the operative ven above or report and acceptance adequately och accept	Taken.* I release of cruding pressure of these than 10 ppm en.*	ne pipel n and the proximate to the cte to the clease nort by the mediate	ine is 45 psi, se gravity of mately 6' x 8 se best of my orifications as E NMOCD me c contaminati	The depth of the the crude is 65. The impacted knowledge and und perform correcarked as "Final Ron that pose a thr	area w	ill be remend that pursions for relations not relations must relate to the country of the countr	diated per a	pplicable OCD rule may ende ator of lia	s and nger bility
External corhe subject III bgs. The II cscribe Are che released uidelines. hereby certifications al ublic health hould their or the environ	rosion of (ine is 660); H2S conce a Affected crude res fy that the I operators or the envio	5" inch pipelin bbls/day and to entration in the and Cleanup / ulted in a sur- information gi are required to pronuent. The	the operative crude is Action Take face stain to the operative ven above or report and acceptance adequately och accept	Taken.* I release of cruding pressure of the less than 10 ppm en.* Ithat measured applies true and compiled for file certain record of a C-141 repoint entertain record and re	ne pipel n and the proximate to the cte to the clease nort by the mediate	ine is 45 psi, se gravity of mately 6' x 8 se best of my orifications as E NMOCD me c contaminati	The depth of the the crude is 65. The impacted knowledge and und perform correcarked as "Final Ron that pose a thr	area w ndersta ntive act eport" ceat to g	ill be remend that pursions for relations not relations must relate to the relations for conditions and water the relations and water the relations and relations are relatively for conditions and relations are relatively for conditions are relatively for conditions.	diated per a suant to NMC eases which eve the oper c, surface wa ompliance w	pplicable OCD rule may ende ator of lia ter, huma ith any of	s and nger bility
External cor- he subject il bgs. The Coscribe Are- line released uidelines. hereby certi- egulations al uiblic health hould their o or the environ- ederal, state,	rosion of of the is 660 in the is 660 in the is 660 in the is 660 in the is 600 in the	or inch pipelin bbls/day and to entration in the and Cleanup / ulted in a sur- information gi are required to incomment. The have failed to a addition, NMO ws and/or regu	the operative crude is Action Take face stain to the operative ven above or report and acceptance adequately och accept	Taken.* I release of cruding pressure of the less than 10 ppm en.* Ithat measured applies true and compiled for file certain record of a C-141 repoint entertain record and re	ne pipel n and the proximate to the cte to the clease nort by the mediate	ine is 45 psi, se gravity of mately 6' x 8 se best of my orifications as E NMOCD me c contaminati	The depth of the the crude is 65. The impacted knowledge and und perform correcarked as "Final R on that pose a three the operator of the correction of the	area w ndersta ntive act eport" ceat to g	ill be remend that pursions for relations not relations must relate to the relations for conditions and water the relations and water the relations and relations are relatively for conditions and relations are relatively for conditions are relatively for conditions.	diated per a suant to NMC eases which eve the oper c, surface wa ompliance w	pplicable OCD rule may ende ator of lia ter, huma ith any of	s and nger bility
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