2016 Annual Groundwater Monitoring Report

DCP Plant to Lea Station 6-Inch Section 31
Plains SRS Number: 2009-084
Lea County, New Mexico

March 30, 2017
Terracon Project No. AR167322
NMOCD Reference No. 1R-2166

Prepared for:
Plains Marketing, LP
Midland, Texas

Prepared by:
Terracon Consultants, Inc.
Lubbock, Texas

Terracon

March 30, 2017

Plains Marketing, L.P.
577 US Highway 385 North
Seminole, Texas 79360
Attn: Ms. Camille Bryant

Telephone: (575) 441-1099

Re: 2016 Annual Groundwater Monitoring Report
DCP Plant to Lea Station 6-Inch Section 31
U/L "K", Sec. 31, T20S, R37E
Lea County, New Mexico
NMOCD Reference No. 1R – 2166
Plains Marketing, L.P. SRS N0. 2009-084
Terracon Project No. AR167322

Dear Ms. Bryant:

Terracon is pleased to submit four copies of the 2016 Annual Groundwater Monitoring Report for the above-referenced site.

We appreciate the opportunity to perform these services for Plains Marketing, L.P. (Plains). Please contact either of the undersigned at (806) 300-0140 if you have questions regarding the information provided in the report.

Sincerely,
Terracon

Prepared by:

Joel Lowry
Project Geologist
Lubbock

Reviewed by:

Erin Loyd, P.G.
Senior Associate
Office Manager – Lubbock

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Lea County, New Mexico
NMOCD Reference No. 1R – 2166
Terracon Project No. AR167322

1.0 INTRODUCTION

1.1 Site Description

The legal description of the DCP Plant to Lea Station 6-Inch Section 31 release site is Unit Letter "K" (NE/SW), 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 32.52733º North latitude and 103.29060º West longitude. A "Site Location Map" is provided as Figure 1 in Appendix A.

Site Name	DCP Plant to Lea Station 6-Inch Section 31
Site Location	Latitude 32.52733º North, Longitude 103.29060º West
General Site Description	The site consists of six groundwater monitoring wells located in, and adjacent to, a pipeline right-of-way surrounded by native pasture land.
Landowner	State of New Mexico

1.2 Background Information

Based on information provided by the client, On April 2, 2009, Plains discovered a crude oil release from a six-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 6 feet (ft.) in width by 8 ft. in length. Plains initially classified the release as "non-reportable". Upon further investigation, Plains reclassified the release to "reportable" status and notified the New Mexico Oil Conservation Division (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 20 barrels (bbls) of crude oil was released from the pipeline, with no recovery.

On April 15, 2009, soil boring (SB-1) was advanced approximately 10 ft. west of the release point

to evaluate the vertical extent of soil impact. During advancement of the soil boring, groundwater was encountered at approximately 77 ft. 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 milligrams per liter (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 77 ft. in width, approximately 80 ft. in length, and 15 ft. in depth.

On September 21 through September 23, 2009, Plains installed and developed four 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 15 ft. bgs, to a total depth of approximately 86 ft. bgs. Soil samples collected at 25 ft. bgs, 35 ft. feet bgs, 45 ft. bgs, 55 ft. bgs, 65 ft. bgs, and 75 ft. 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 milligrams per kilogram (mg/Kg) for the soil sample collected at 25 ft. bgs to 13.444 mg/Kg for the soil sample collected at 55 ft. bgs. The TPH concentrations ranged from 286 mg/Kg for the soil sample collected at 25 ft. bgs to 1,538 mg/Kg for the soil sample collected at 55 ft. bgs.

Monitor well MW-2 is located approximately 75 ft. northwest (up-gradient) of the release point. The monitor well was installed to a total depth of approximately 90 ft. bgs. Soil samples collected at 15 ft. bgs, 30 ft. bgs, 45 ft. bgs, 60 ft. bgs, and 75 ft. 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 75 ft. to the southwest (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately 90 ft. bgs. Soil samples collected at 15 ft. bgs, 30 ft. bgs, 45 ft. bgs, and 60 ft. 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 15 ft. bgs, 30 ft. bgs, 45 ft. bgs, and 60 ft. bgs to 0.0025 mg/Kg for the soil sample collected at 60 ft. bgs. Analytical results indicated BTEX concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at 15 ft. bgs, 30 ft. bgs, and 45 ft. bgs to 0.0052 mg/Kg for the soil sample collected at 60 ft. bgs. TPH concentrations were less than the appropriate laboratory MDL for all of the submitted soil samples.

Monitor well MW-4 is located approximately 75 ft. to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately 89 ft. bgs. Soil samples collected at 15 ft. bgs, 30 ft. bgs, 45 ft. bgs, and 60 ft. 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, monitoring well MW-5 was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-5 is located approximately 60 ft. to the southeast (down-gradient) of the release point. The monitor well was installed to a total depth of approximately 95 ft. bgs. Soil samples collected at 15 ft. bgs, 25 ft. bgs, 45 ft. bgs, 65 ft. bgs, and 75 ft. 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, monitoring well MW-6 was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-6 is located approximately 95 ft. to the east (cross-gradient) of the release point. The monitor well was installed to a total depth of approximately 100 ft. bgs. Soil samples collected at 5 ft. bgs, 40 ft. bgs, and 75 ft. 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.

On October 18, 2016, Terracon assumed oversight of groundwater monitoring activities at the DCP Plant to Lea Station 6-Inch Section 31 release site. There are a total of six monitor wells located at the site. Monitor wells MW-2 through MW-6 are gauged and sampled on a quarterly schedule; MW-1 is not sampled due to the presence of PSH.

1.3 Scope of Work

Terracon's scope of work includes oversight of groundwater monitoring activities and preparation of an *Annual Groundwater Monitoring Report* in accordance with the NMOCD letter, dated May 1998, requiring submittal of and *Annual Groundwater Monitoring* Report by April 1st of each year. Groundwater monitoring activities include conducting quarterly groundwater monitoring events at the site. Quarterly groundwater monitoring events include measuring the static water levels in the monitor wells, checking for the presence of PSH, and the collection of groundwater samples from each of the on-site monitor wells not exhibiting a measurable thickness of PSH. In accordance with the approved scope of work, Terracon conducted the quarterly groundwater monitoring event on December 22, 2016. Quarterly groundwater monitoring events conducted on February 10, May 3, and August 4, 2016, were conducted by an alternative environmental contractor hired by Plains.

1.4 Standard of Care

Activities conducted prior to Terracon assuming oversight of the project (beginning on October 18, 2016) were performed by previous consultants hired by Plains. As such, Terracon makes no assumptions or warranties regarding the previous consultants services being performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

1.5 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this remediation activities. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of Plains Marketing, L. P., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Plains Marketing, L.P. and Terracon. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in this report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

2.0 FIELD ACTIVITIES

2.1 Product Recovery

An estimated 221 gallons (5.3 bbls) of PSH was recovered from monitor well MW-1, by manual recovery, in 2016. During the last quarterly groundwater monitoring event conducted during the 2016 reporting period, the PSH thickness in MW-1 measured 2.96 feet. An estimated 5,711 gallons (136 bbls) of PSH has been manually recovered from MW-1 since recovery operations began in 2009.

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 periodically. During the 2016 reporting period, an estimated 594 gallons (14 bbls) of PSH in the vapor phase and an estimated 733 gallons (17.5 bbls) of PSH in the liquid phase were recovered by the MDPE unit, for a total of an estimated 1,327 equivalent gallons (31.5 bbls) of PSH. To date, an estimated 10,239 equivalent gallons (243 bbls) of PSH has been recovered from monitor well MW-1 by MDPE. Recovered fluids are disposed of at an NMOCD-approved disposal facility.

2.2 Groundwater Monitoring

Quarterly groundwater monitoring events were conducted on February 10 (1Q2016), May 3 (2Q2016), August 4 (3Q2016) and December 22, 2016 (4Q2016). Quarterly groundwater monitoring events included measuring the static water level in the on-site monitor wells, checking for the presence of PSH, and the collection of groundwater samples from each of the on-site monitor wells not exhibiting a measurable thickness of PSH. Prior to sample collection, the monitor wells were purged a minimum of three (3) well volumes utilizing disposable Teflon bailers then allowed to recharge. Upon allowing the wells to recharge, groundwater samples were collected utilizing a clean, disposable Teflon bailer and placed in laboratory-supplied containers appropriate to the analyses requested and placed on ice in a cooler. The sample coolers and completed chain-of-custody forms were delivered to Xenco Laboratories in Midland, Texas for

analysis of BTEX using EPA SW-846 Method 8021B. Purged water was placed into a polystyrene aboveground storage tank (AST) and disposed of at an NMOCD-approved disposal facility.

Based on sampling criteria provided by the NMOCD, groundwater samples collected from the on-site monitor wells were not subject to analysis of polynuclear aromatic hydrocarbons (PAHs).

Groundwater elevation gauging data collected during the respective quarterly sampling events were used to construct groundwater gradient maps, which are included as Figures 2a through 2d in Appendix A. Groundwater flow direction was relatively consistent during each quarter of 2016 at a gradient of 0.002 ft/ft in the southeasterly direction. Groundwater elevation and PSH thickness data is summarized in Table 1 in Appendix B.

3.0 LABORATORY ANALYTICAL METHODS

The groundwater samples collected from the on-site monitor wells were analyzed for BTEX using EPA SW-846 Method 8021B. Laboratory results from the analysis of groundwater samples collected from the monitor wells are summarized in Table 2 in Appendix B and presented on Figures 3a through 3d in Appendix A. The executed chain-of-custody forms and laboratory data sheets are provided in Appendix C.

4.0 DATA EVALUATION

4.1 Groundwater Samples

Laboratory analytical results from groundwater samples collected on February 10 (1Q2016), May 3 (2Q2016), August 4 (3Q2016) and December 22, 2016 (4Q2016) were compared to NMOCD regulatory standards based on New Mexico Water Quality Control Commission (WQCC) 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 2016 reporting period due to the presence of PSH.

Monitor Well MW-2

- Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory sample detection limit during each quarter of the 2016 reporting period.

Monitor Well MW-3

- Laboratory analytical results indicated benzene concentrations ranged from less than the applicable laboratory sample detection limit (SDL) during the 1st, 2nd and 3rd Quarters to 0.00110 mg/L during the 4th Quarter of the 2016 reporting period. Toluene, ethylbenzene and total xylene concentrations were less than the applicable laboratory SDL during each quarter of the 2016 reporting period. Benzene, toluene, ethylbenzene and total xylene concentrations were less than NMOCD regulatory standards during each quarter of the 2016 reporting period.

Monitor Well MW-4

- Laboratory analytical results indicated benzene concentrations ranged from less than the applicable laboratory SDL during the 3rd and 4th Quarters to 0.00214 mg/L during the 1st Quarter of the 2016 reporting period. Toluene, ethylbenzene and total xylene concentrations were less than the applicable laboratory SDL during each quarter of the 2016 reporting period. Benzene, toluene, ethylbenzene and total xylene concentrations were less than NMOCD regulatory standards during each quarter of the 2016 reporting period.

Monitor Well MW-5

- Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory sample detection limit during each quarter of the 2016 reporting period.

Monitor Well MW-6

- Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory sample detection limit during each quarter of the 2016 reporting period.

5.0 SUMMARY

- Currently, there are six groundwater monitor wells (MW-1 through MW-6) located at the site.
- MW-1 was not sampled during the 2016 reporting period due to the presence of PSH.
- Monitor wells MW-2 through MW-6 were sampled during each quarter of 2016.
- Benzene, toluene, ethylbenzene and total xylene concentrations were less than the NMOCD regulatory standards in each of the submitted groundwater samples.
- The PSH thickness in monitor well MW-1 was 2.96 ft during the last quarterly groundwater monitoring event conducted during the 2016 reporting period.
- An estimated 221 gallons (5.3 bbls) of PSH were recovered manually from monitor well MW-1 during the 2016 reporting period.

- An estimated 3,874 (92 bbls) of PSH were recovered in the vapor phase and an estimated 842 gallons (20 bbls) of PSH in the liquid phase from monitor well MW-1 during the 2016 reporting period.
- The groundwater flow direction was relatively consistent during each quarter of 2016 at a gradient of 0.002 ft/ft in the southeasterly direction.

6.0 ANTICIPATED ACTIONS

- PSH recovery by MDPE will continue on monitor well MW-1 on an alternating quarterly basis during the 2017 reporting period.
- Weekly PSH recovery will continue on monitor well MW-1, when the MDPE is off-site.
- Monitor wells MW-2 through MW-6 will be monitored and sampled quarterly for the presence of BTEX in 2017.
- An *Annual Groundwater Monitoring Report* will be prepared detailing field activities and the results of groundwater monitoring activities conducted during the 2017 reporting period.

7.0 DISTRIBUTION

Copy 1: Dr. Tomas Oberding, Hydrologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
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Plains Marketing, L.P.
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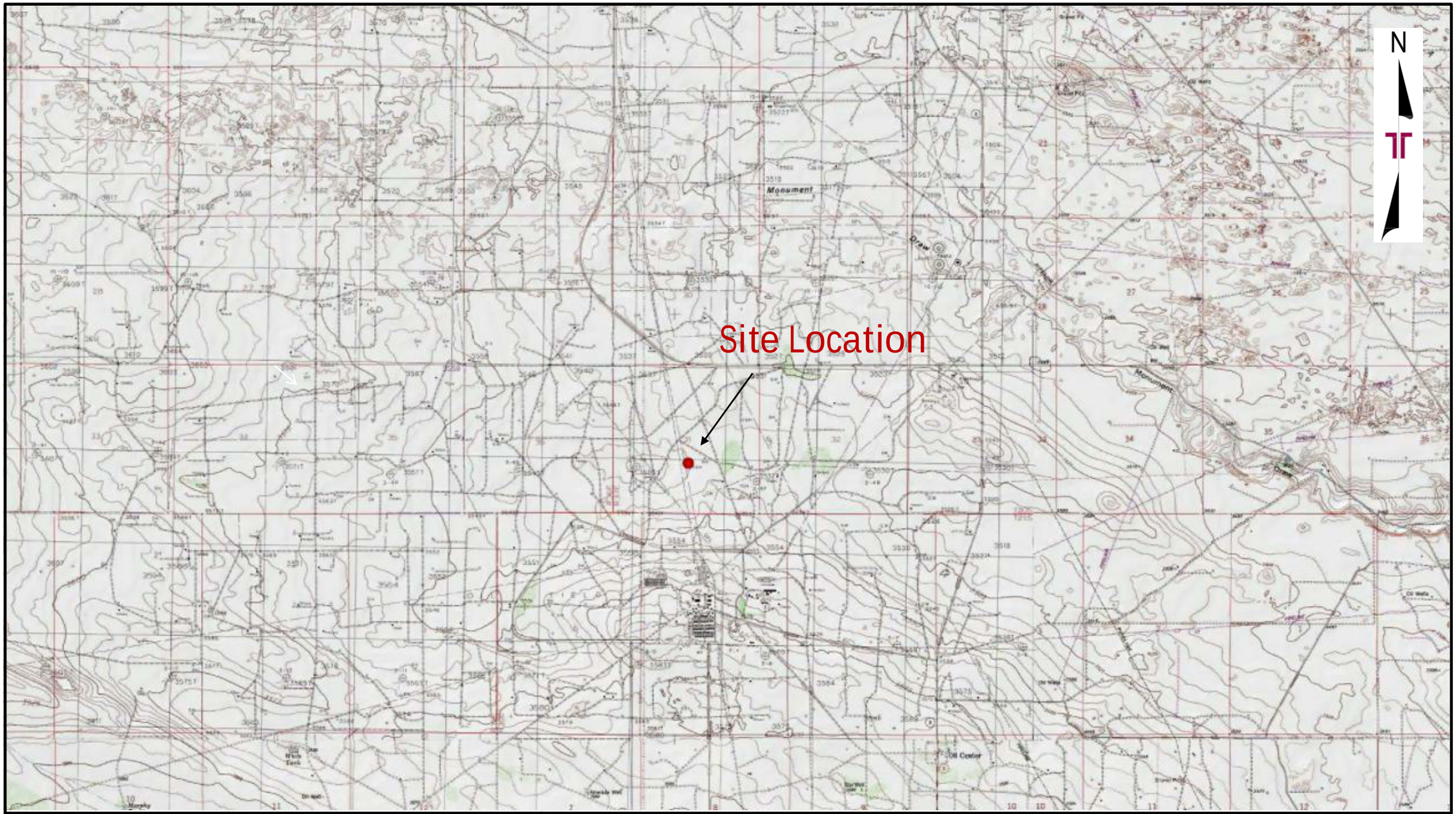
Houston, Texas 77002
jpdann@paalp.com

Copy 5: Mr. Joel Lowry
Terracon Consultants
5827 50th Street, Suite 1
Lubbock, Texas 79424
Joel.Lowry@terracon.com

APPENDIX A

Figure 1– Site Location Map
Figure 2a – Groundwater Gradient Map (1Q2016)
Figure 2b – Groundwater Gradient Map (2Q2016)
Figure 2c – Groundwater Gradient Map (3Q2016)
Figure 2d – Groundwater Gradient Map (4Q2016)
Figure 3a – Groundwater Concentration Map (1Q2016)
Figure 3b – Groundwater Concentration Map (2Q2016)
Figure 3c – Groundwater Concentration Map (3Q2016)
Figure 3d – Groundwater Concentration Map (4Q2016)

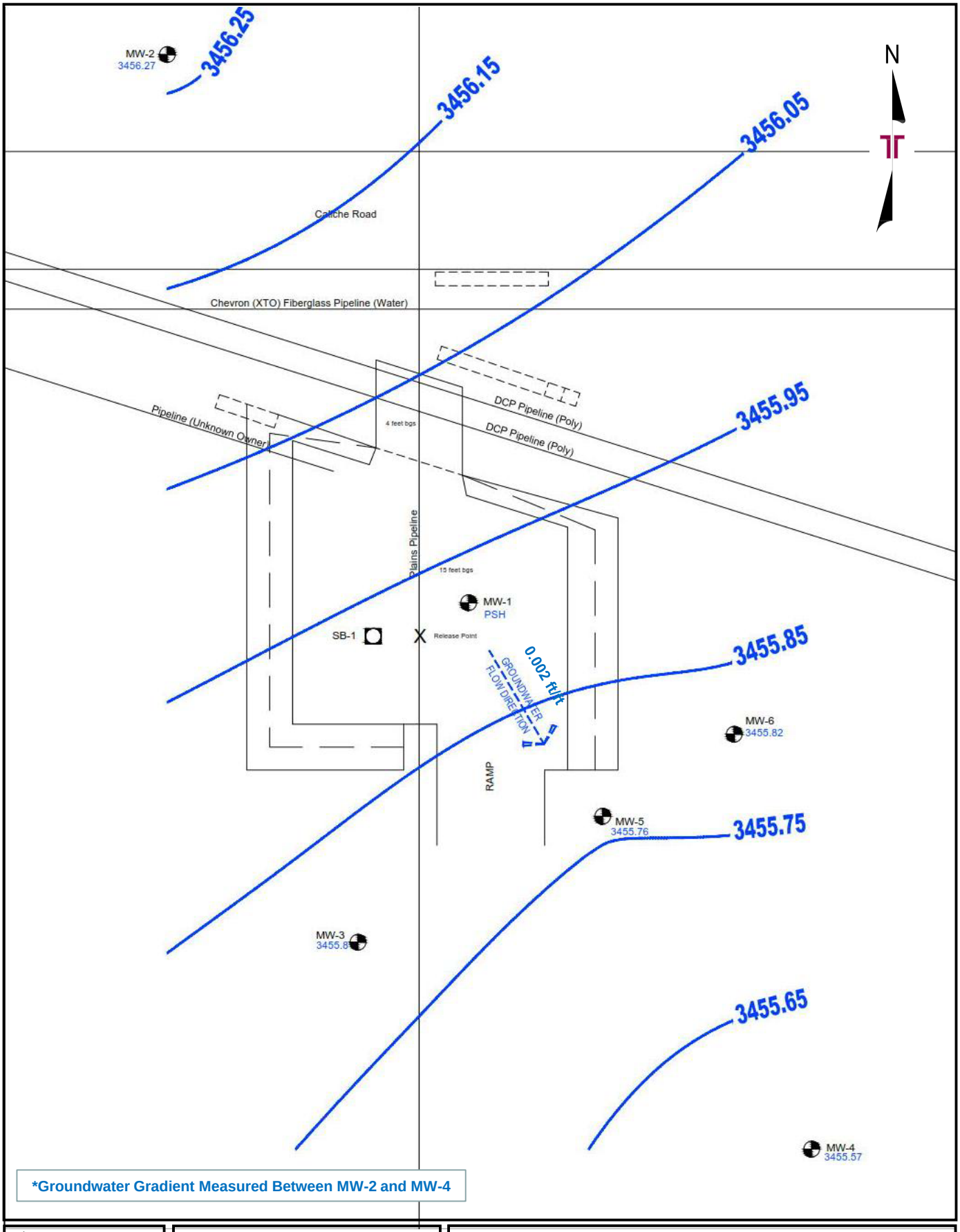


Project No.	AR167322
Scale:	1” = 1 Mile
Source:	Google Earth
Date:	2014

Terracon
Consulting Engineers & Scientists
5827 50th St. Suite 1 Lubbock, Texas 79424
PH. (806) 300-0104 FAX. (806) 797 0947

Figure 1 – Site Location Map

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



*Groundwater Gradient Measured Between MW-2 and MW-4

Project No.	AR167322
Scale:	1"=90'
Source:	GoogleEarth
Date:	2014

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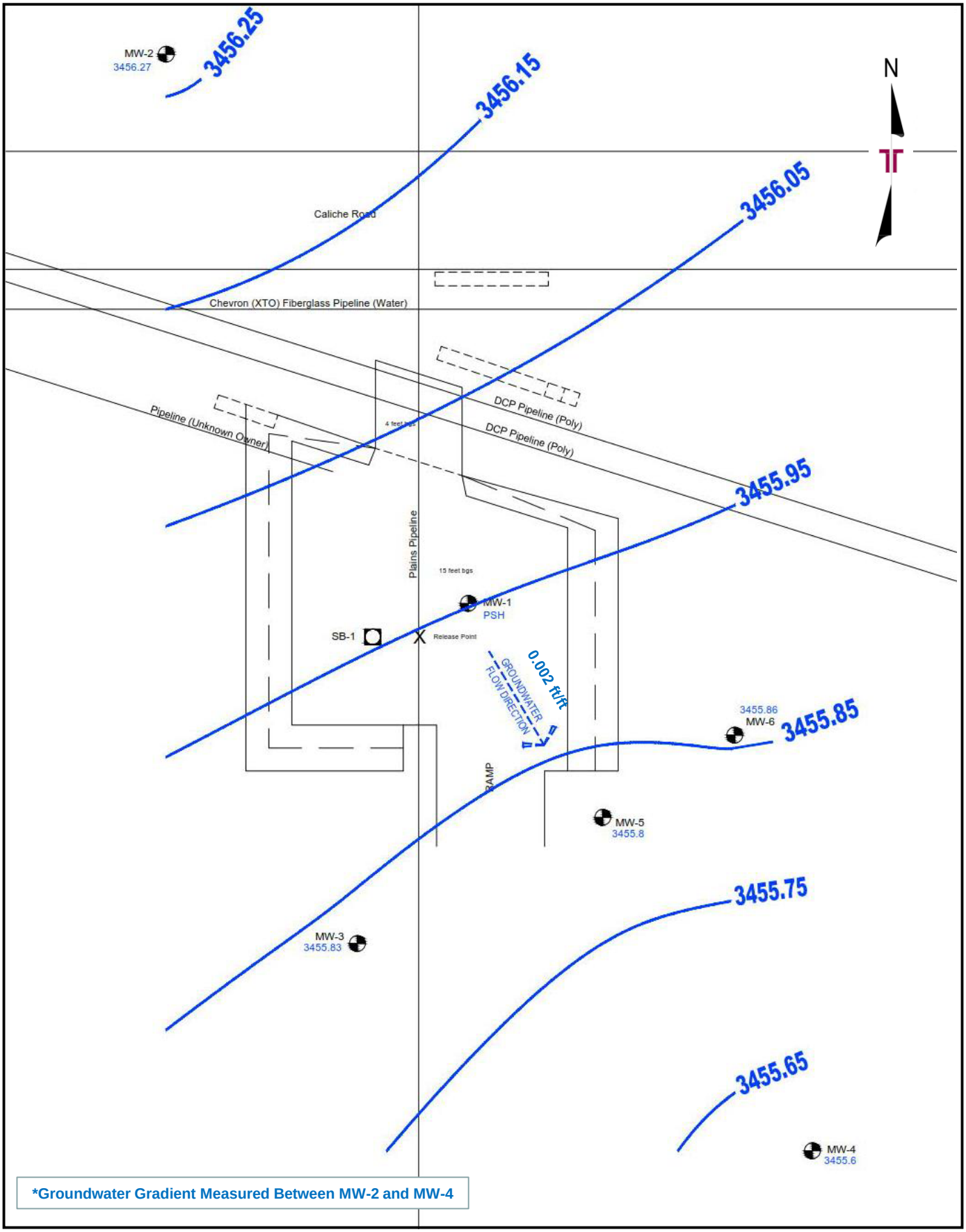
Figure 2a – Groundwater Gradient Map -1Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



*Groundwater Gradient Measured Between MW-2 and MW-4

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Source:	GoogleEarth
Date:	2014

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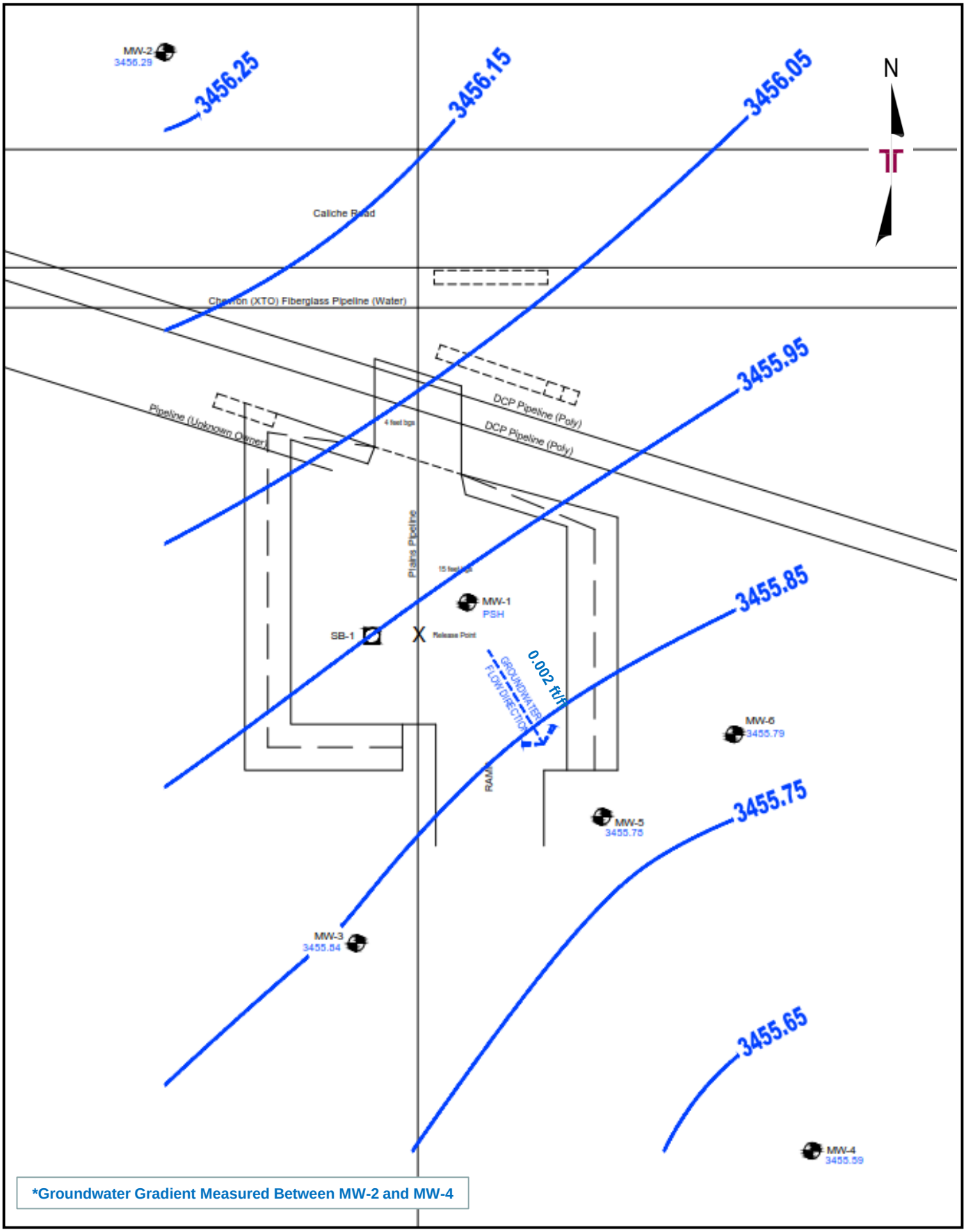
Figure 2b – Groundwater Gradient Map -2Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



*Groundwater Gradient Measured Between MW-2 and MW-4

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Source:	GoogleEarth
Date:	2014

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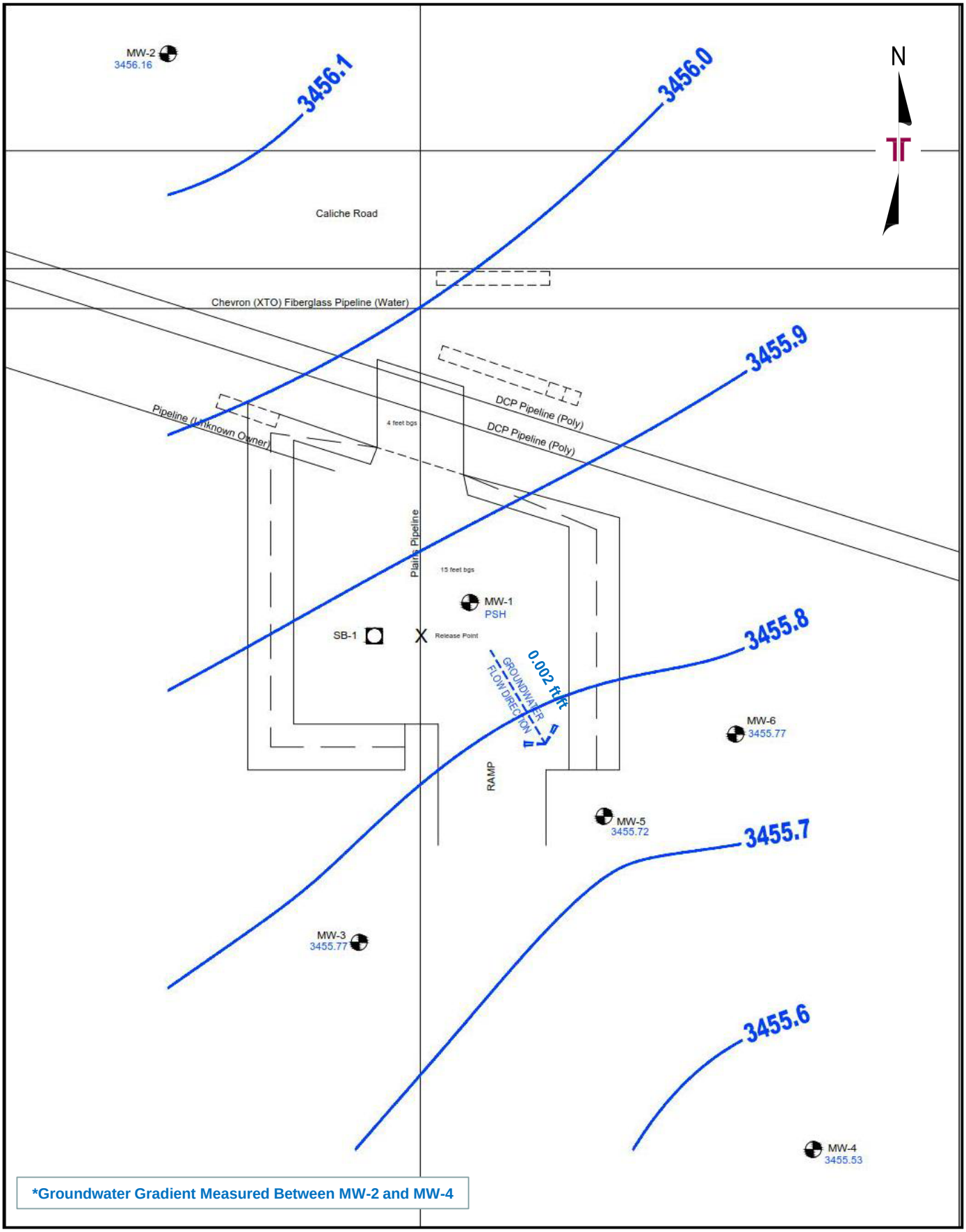
Figure 2c – Groundwater Gradient Map -3Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



*Groundwater Gradient Measured Between MW-2 and MW-4

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Source:	GoogleEarth
Date:	2014

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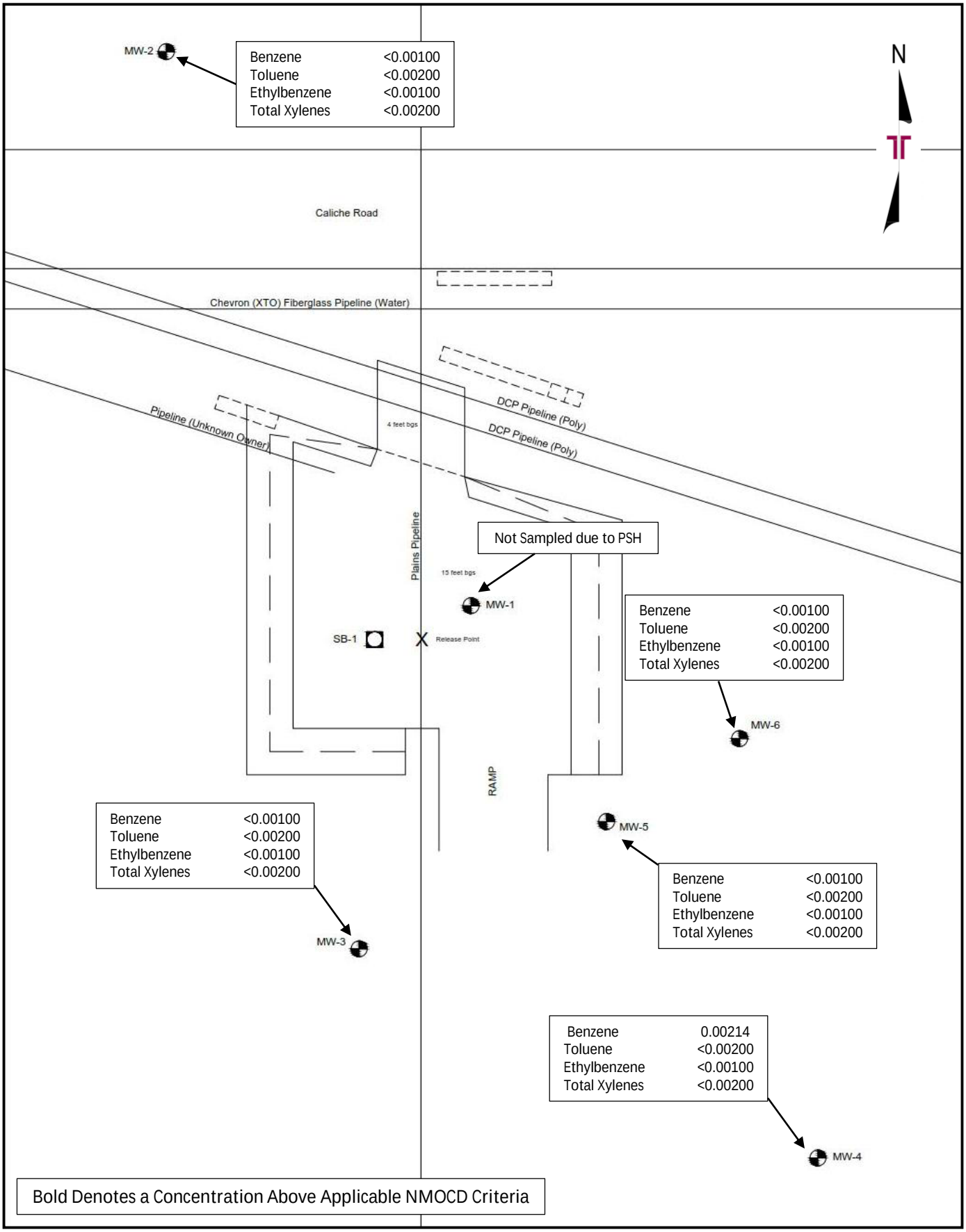
Figure 2d – Groundwater Gradient Map -4Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



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Source:	GoogleEarth
Date:	2014

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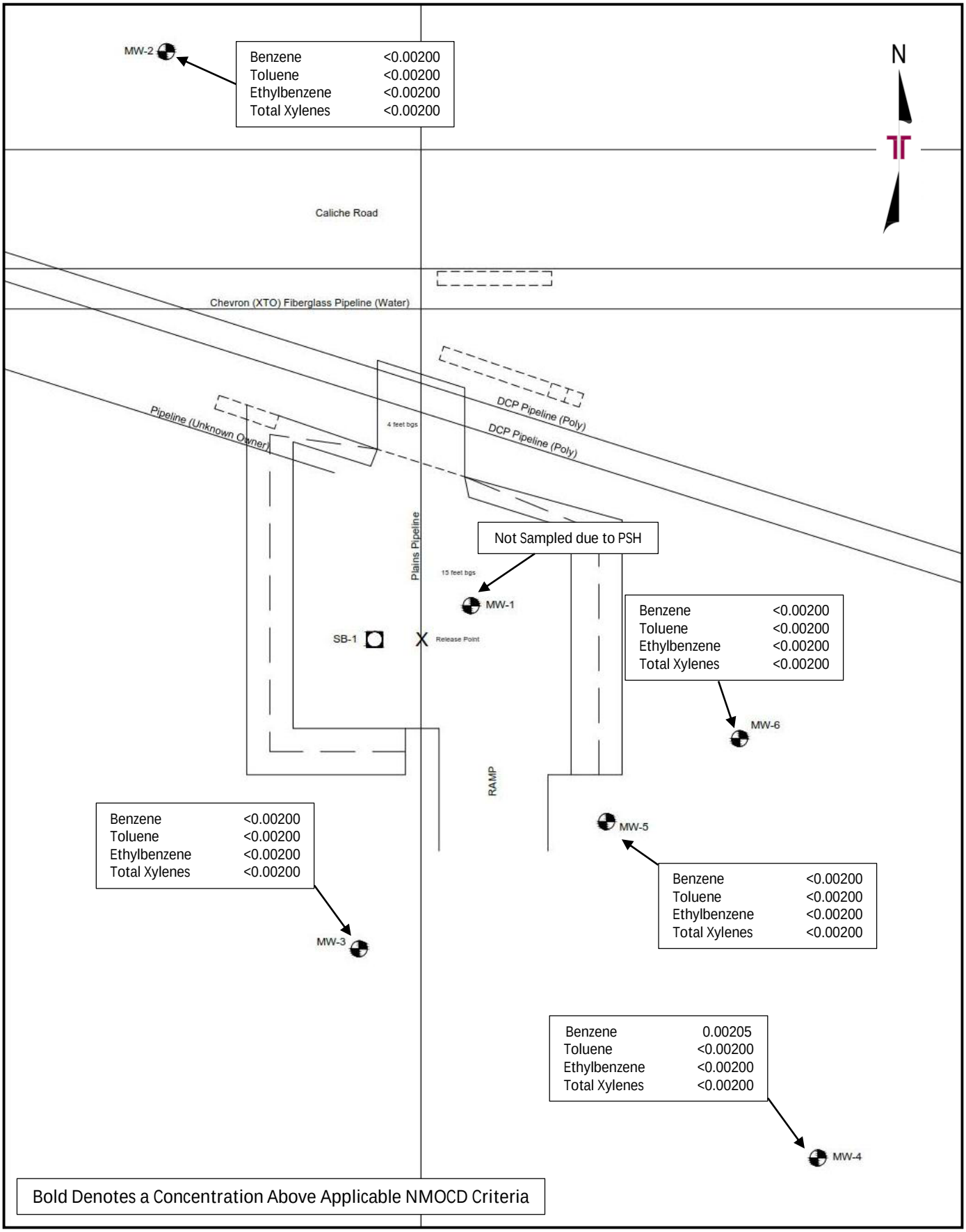
Figure 3a – Groundwater Concentration Map -1Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



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Source:	GoogleEarth
Date:	2014

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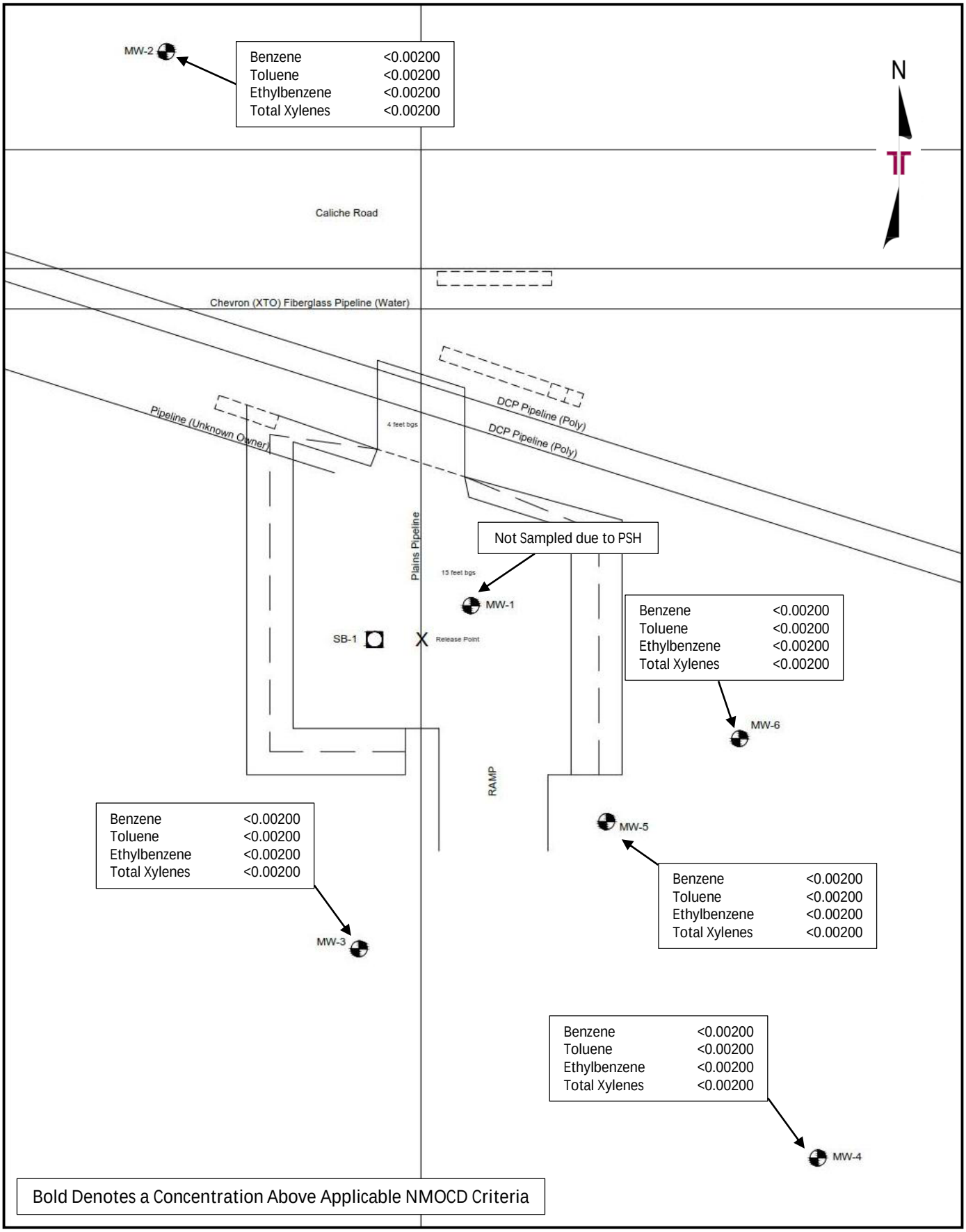
Figure 3b – Groundwater Concentration Map -2Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



Project No.	AR167322
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Source:	GoogleEarth
Date:	2014

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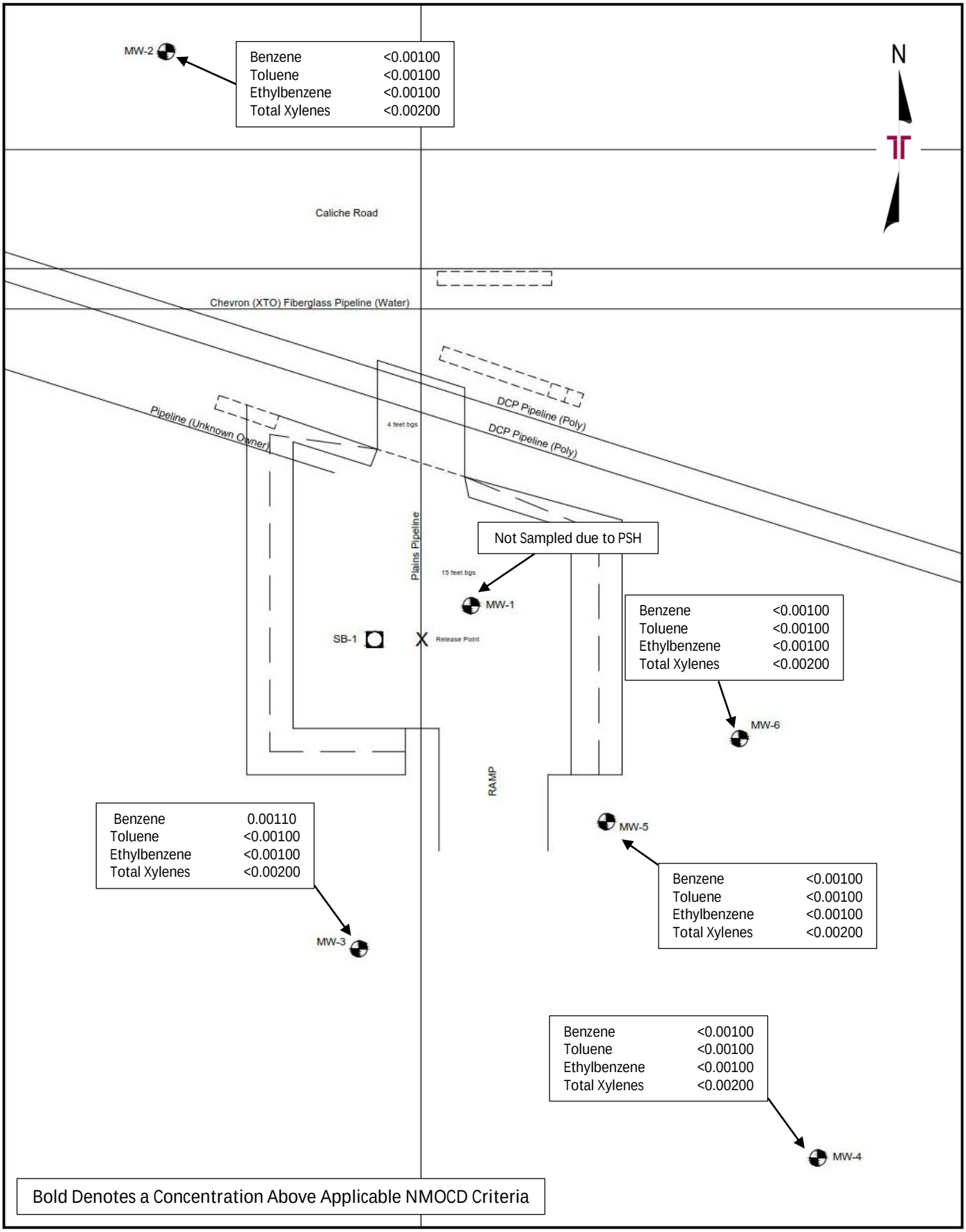
Figure 3c – Groundwater Concentration Map -3Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico



Project No.	AR167322
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Source:	GoogleEarth
Date:	2014

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Figure 3d – Groundwater Concentration Map -4Q2016

DCP Plant to Lea Station 6-Inch Sec. 31
Plains SRS No. 2009-084
32.52733° , -103.29060°
Lea County, New Mexico

APPENDIX B

Table 1 – Groundwater Elevation and PSH Thickness Data
Table 2 – Groundwater Analytical Summary - BTEX

TABLE 1
2016 ANNUAL REPORT

GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/10/2016	3,539.59	-	-	-	-
	05/03/2016	3,539.59	-	-	-	-
	08/04/2016	3,539.59	-	-	-	-
	12/22/2016	3,539.59	83.05	86.01	2.96	3,456.10
MW-2	02/10/2016	3,539.37	-	83.10	-	3,456.27
	05/03/2016	3,539.37	-	83.10	-	3,456.27
	08/04/2016	3,539.37	-	83.08	-	3,456.29
	12/22/2016	3,539.37	-	83.21	-	3,456.16
MW-3	02/10/2016	3,539.28	-	83.48	-	3,455.80
	05/03/2016	3,539.28	-	83.45	-	3,455.83
	08/04/2016	3,539.28	-	83.44	-	3,455.84
	12/22/2016	3,539.28	-	83.51	-	3,455.77
MW-4	02/10/2016	3,540.07	-	84.50	-	3,455.57
	05/03/2016	3,540.07	-	84.47	-	3,455.60
	08/04/2016	3,540.07	-	84.48	-	3,455.59
	12/22/2016	3,540.07	-	84.54	-	3,455.53
MW-5	02/10/2016	3,539.90	-	84.14	-	3,455.76
	05/03/2016	3,539.90	-	84.10	-	3,455.80
	08/04/2016	3,539.90	-	84.12	-	3,455.78
	12/22/2016	3,539.90	-	84.18	-	3,455.72
MW-6	02/10/2016	3540.82	-	85.00	-	3,455.82
	05/03/2016	3540.82	-	84.96	-	3,455.86
	08/04/2016	3540.82	-	85.03	-	3,455.79
	12/22/2016	3540.82	-	85.05	-	3,455.77

- = Not applicable
Elevations based on the North American Vertical Datum of 1988

TABLE 2
2016 ANNUAL REPORT

GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8260b						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-2	02/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	08/04/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
MW-3	02/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	08/04/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	0.00110	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	0.00110
MW-4	02/10/2016	0.00214	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	0.00214
	05/03/2016	0.00205	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00205
	08/04/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
MW-5	02/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	08/04/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
MW-6	02/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	08/04/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			

APPENDIX C

Laboratory Data Sheets

Analytical Report 524836

for

Plains All American EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" Sec. 31

2009-084

17-FEB-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534-15-1)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
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)

17-FEB-16

Project Manager: **Ben Arguijo**
Plains All American EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No(s): **524836**
DCP Plant to Lea Station 6" Sec. 31
Project Address:

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) 524836. 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. 524836 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
Project Manager

Sample Cross Reference 524836

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 524836

Plains All American EH&S, Midland, TX

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

Project Id: 2009-084
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Fri Feb-12-16 11:41 am
Report Date: 17-FEB-16
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	524836-001		524836-002		524836-003		524836-004		524836-005	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6	
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Feb-10-16 12:00		Feb-10-16 10:00		Feb-10-16 10:30		Feb-10-16 11:00		Feb-10-16 11:30	
BTEX by EPA 8021B	***Extracted:***	Feb-15-16 20:00		Feb-15-16 20:00		Feb-15-16 20:00		Feb-15-16 20:00		Feb-15-16 20:00	
	Analyzed:	Feb-16-16 16:28		Feb-16-16 16:46		Feb-16-16 17:03		Feb-16-16 17:21		Feb-16-16 17:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00100	ND	0.00100	0.00214	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
Xylenes, Total		ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100	ND	0.00100
Total BTEX		ND	0.00100	ND	0.00100	0.00214	0.00100	ND	0.00100	ND	0.00100

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

	Phone	Fax
4147 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
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Form 2 - Surrogate Recoveries

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

Work Orders : 524836,

Project ID: 2009-084

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

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

Work Order #: 524836

Project ID: 2009-084

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

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

Work Order #: 524836

Project ID: 2009-084

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

XENCO Laboratories Environmental Asbestos Biochemistry

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

Page 1 of 1

LAB W.O #: 524836

Field billable Hrs :

Company: Basin Environmental Service Technologies, LLC		Phone: (575)396-2378	
Address: 3100 Plains Hwy.		Fax: (575)396-1429	
City: Lovington	State: NM	Zip: 88260	
PM/Attn: Ben Arguijo	Email:	cjbryant@paalp.com, bjarguijo@basinenv.com	
Project ID: DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084		PO#: PAA-C. Bryant	
Invoice To: Camille Bryant Plains All American		Quote #:	

TAT Work Days = D Need results by:________ Time:________

Std (5-7D) 5Hrs 1D 2D 3D 4D **5D 7D** 10D 14D Other________

Sampler Name: ~~Abc Ridgess~~ Kyle Humphrey

Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

ANALYSES REQUESTED — Cont Type: VP; Pres Type: E, I; BTEX

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of containers	BTEX
1	MW-2	2-10-16	12:00	GW			3	X
2	MW-3	2-10-16	10:00	GW			3	X
3	MW-4	2-10-16	10:30	GW			3	X
4	MW-5	2-10-16	11:00	GW			3	X
5	MW-6	2-10-16	11:30	GW			3	X
6								
7								
8								
9								
0								

Lab Only:

Container Type Codes
VA Vial Amber; VC Vial Clear; VP Vial Pre-preserved; GA Glass Amber; GC Glass Clear; PA Plastic Amber; PC Plastic Clear; Other____
ES Encore Sampler; TS TerraCore Sampler; AC Air Canister; TB Tedlar Bag; ZB Zip Lock Bag; PC Plastic Clear

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other____

**** Preservative Type Codes**
A. None; B. HNO_3; C. H_2SO_4; D. NaOH; E. HCL; F. MeOH; G. $Na_2S_2O_3$; H. $NaHSO_4$; I. Ice; J. MCAA; K. ZnAc&NaOH; L. Asbc Acid&NaOH; O.____

^ Matrix Type Codes
GW Ground Water; WW Waste Water; DW Drinking Water; SW Surface Water; OW Ocean/Sea Water; PL Product-Liquid; PS Product-Solid; SL Sludge; Other____
S Soil/Sediment/Solid; W Wipe; A Air; O Oil; T Tissue; U Urine; B Blood

REMARKS

Reg Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers	Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 **2** 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1	4°C 2 3

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	Basin	2-12-16	11:41	[signature]	Xenco	2/12/16	11:41
2								
3								
4								

Lab Use Only	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

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

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: 02/12/2016 11:41:00 AM

Work Order #: 524836

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

Temperature Measuring device used : r8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6 *Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on 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 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)?	**Yes**
#18 All samples received within hold time?	**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 HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Carley Owens — Date: 02/12/2016

Checklist reviewed by: Kelsey Brooks — Date: 02/15/2016

Analytical Report 529711

for

Plains All American EH&S

Project Manager: Ben Arguijo

DCP Plant to Lea Station 6" Sec. 31

13-MAY-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534-15-1)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
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)

13-MAY-16

Project Manager: **Ben Arguijo**
Plains All American EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No(s): **529711**
DCP Plant to Lea Station 6" Sec. 31
Project Address:

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) 529711. 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. 529711 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,

Julian Martinez
Project Manager

Sample Cross Reference 529711

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	05-03-16 13:20		529711-001
MW-3	W	05-03-16 13:40		529711-002
MW-4	W	05-03-16 14:00		529711-003
MW-5	W	05-03-16 14:30		529711-004
MW-6	W	05-03-16 20:50		529711-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 529711

Plains All American EH&S, Midland, TX

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

Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Fri May-06-16 01:30 pm

Report Date: 13-MAY-16

Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	529711-001		529711-002		529711-003		529711-004		529711-005	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6	
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	May-03-16 13:20		May-03-16 13:40		May-03-16 14:00		May-03-16 14:30		May-03-16 20:50	
BTEX by EPA 8021B	***Extracted:***	May-09-16 19:00		May-09-16 19:00		May-09-16 19:00		May-09-16 19:00		May-09-16 19:00	
	Analyzed:	May-09-16 20:54		May-09-16 21:10		May-09-16 21:27		May-09-16 21:43		May-09-16 21:59	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00200	ND	0.00200	0.00205	0.00200	ND	0.00200	ND	0.00200
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total BTEX		ND	0.00200	ND	0.00200	0.00205	0.00200	ND	0.00200	ND	0.00200

Julian Martinez
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

	Phone	Fax
4147 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
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Form 2 - Surrogate Recoveries

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

Work Orders : 529711,

Project ID:

Lab Batch #: 994094 **Sample:** 529711-001 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 20:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 994094 **Sample:** 529711-002 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 21:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 994094 **Sample:** 529711-003 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 21:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 994094 **Sample:** 529711-004 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 21:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 994094 **Sample:** 529711-005 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 21:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

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

Work Orders : 529711,

Project ID:

Lab Batch #: 994094 **Sample:** 708680-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/09/16 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	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 994094 **Sample:** 708680-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/09/16 19:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 994094 **Sample:** 708680-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 05/09/16 19:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 994094 **Sample:** 529711-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 19:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 994094 **Sample:** 529711-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 05/09/16 20:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

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

Work Order #: 529711 **Project ID:**

Analyst: PJB **Date Prepared:** 05/09/2016 **Date Analyzed:** 05/09/2016

Lab Batch ID: 994094 **Sample:** 708680-1-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	<0.00200	0.100	0.0916	92	0.100	0.0998	100	9	70-125	25	
Toluene	<0.00200	0.100	0.0923	92	0.100	0.101	101	9	70-125	25	
Ethylbenzene	<0.00200	0.100	0.0934	93	0.100	0.102	102	9	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.193	97	0.200	0.213	107	10	70-131	25	
o-Xylene	<0.00200	0.100	0.0944	94	0.100	0.104	104	10	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 # : 529711 **Project ID:**

Lab Batch ID: 994094 **QC- Sample ID:** 529711-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 05/09/2016 **Date Prepared:** 05/09/2016 **Analyst:** PJB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.102	102	0.100	0.0906	91	12	70-125	25	
Toluene	<0.00200	0.100	0.103	103	0.100	0.0915	92	12	70-125	25	
Ethylbenzene	<0.00200	0.100	0.104	104	0.100	0.0922	92	12	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.218	109	0.200	0.192	96	13	70-131	25	
o-Xylene	<0.00200	0.100	0.108	108	0.100	0.0939	94	14	71-133	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY RECORD

XENCO Laboratories — Environmental Asbestos Radiochemistry

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

Page 1 of 1

LAB W.O#: 529711

Field billable Hrs :

Company:	Basin Environmental Service Technologies, LLC	Phone:	(575)396-2378
Address:	3100 Plains Hwy.	Fax:	(575)396-1429
City:	Lovington	State: NM	Zip: 88260
PM/Attn:	Ben Arguijo	Email:	cjbryant@paalp.com, bjarguijo@basinenv.com
Project ID:	DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084	PO#:	PAA-C. Bryant
Invoice To:	Camille Bryant Plains All American	Quote #:	
Sampler Name:	Abe Redecop	Circle One Event:	Daily Weekly Monthly Quartely Semi-Annual Annual N/A

TAT Work Days = D Need results by:_____ Time: _____

Std (5-7D) 5Hrs 1D 2D 3D 4D **5D 7D** 10D 14D Other_____

ANALYSES REQUESTED

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Cont Type * VC	Pres Type** E, I	Example Volatiles by 8260 BTEX	Hold Sample (CALL___) Run PAH on Highest TPH___ Only if
								# Cont	Lab Only:		
1	MW-2	5/3/16	1:20	GW			3			X	
2	MW-3	5/3/16	1:40	GW			3			X	
3	MW-4	5/3/16	2:00	GW			3			X	
4	MW-5	5/3/16	2:30	GW			3			X	
5	MW-6	5/3/16	20:50	GW			3			X	
6											
7											
8											
9											
10											

* Container Type Codes

VA Vial Amber, VC Vial Clear, VP Vial Pre-preserved, GA Glass Amber, GC Glass Clear, PA Plastic Amber, PC Plastic Clear, ES Encore Sampler, TS TerraCore Sampler, AC Air Canister, TB Tedlar Bag, ZB Zip Lock Bag, PC Plastic Clear
Other _____
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other_____

** Preservative Type Codes

A. None, E. HCL, I. Ice, B. HNO_3, F. MeOH, J. MCAA, C. H_2SO_4, G. $Na_2S_2O_3$, K. ZnAc&NaOH, D. NaOH, H. $NaHSO_4$, L Asbc Acid&NaOH, O. _____

^ Matrix Type Codes

GW Ground Water, WW Waste Water, DW Drinking Water, SW Surface Water, OW Ocean/Sea Water, PL Product-Liquid, PS Product-Solid, SL Sludge, S Soil/Sediment/Solid, W Wipe, A Air, O Oil, T Tissue, U Urine, B Blood
Other _____

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 **2** 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 1.5 2 ___ 3 ___

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Abe Redecop					MS	5/5/16	4:35pm
2						XENCO	5/6/16	1330
3								
4								

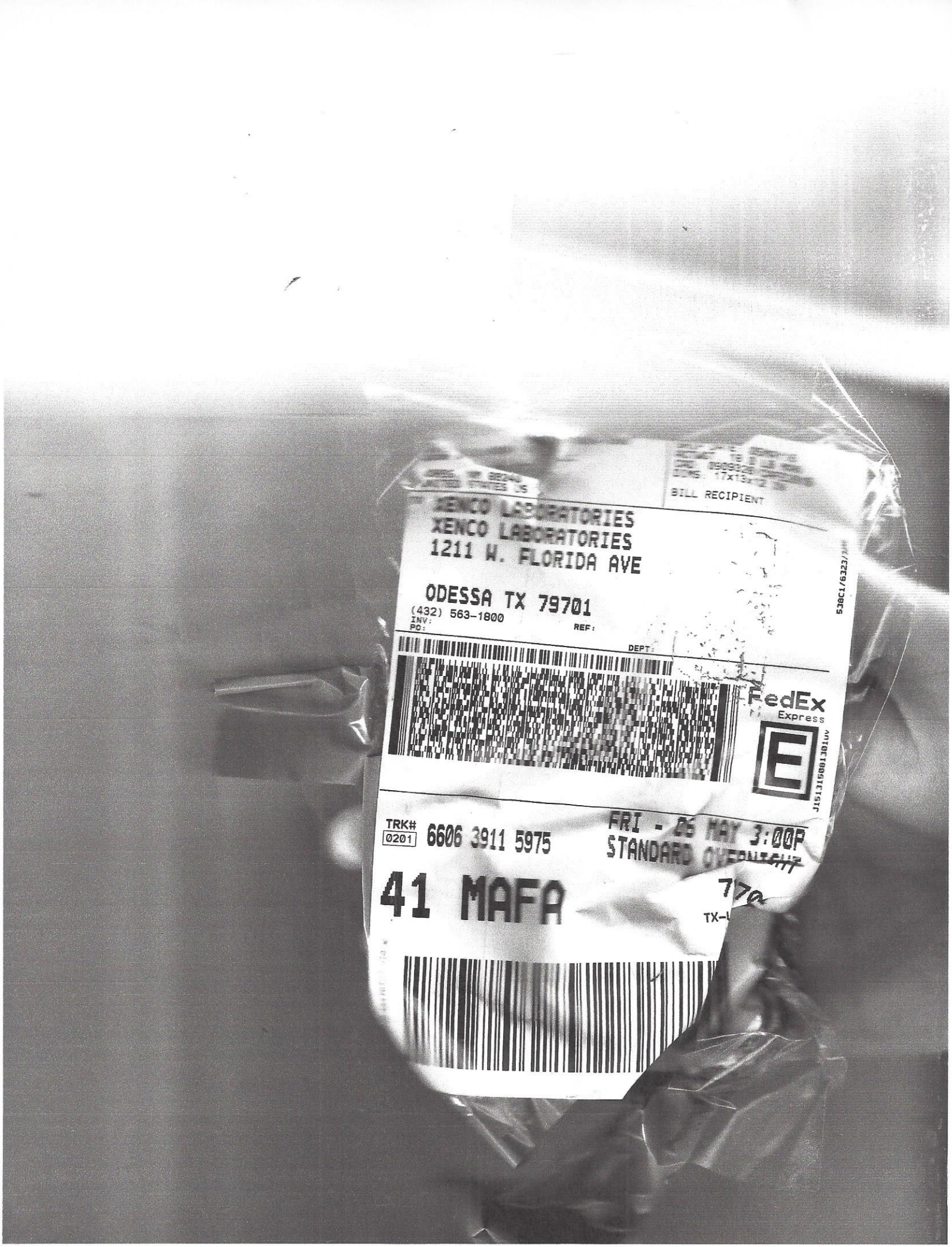
Lab Use Only	YES	NO	N/A
Non-Conformances found?			
Samples intact upon arrival?			
Received on Wet Ice?			
Labeled with proper preservatives?			
Received within holding time?			
Custody seals intact?			
VOCs rec'd w/o headspace?			
Proper containers used?			
pH verified-acceptable, excl VOCs?			
Received on time to meet HTs?			

C.O.C. Serial #

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

Temp: 3.2°C/F:0 IR ID:R-8
Corrected Temp: 3.2°

Revision Da


BILL RECIPIENT
XENCO LABORATORIES
XENCO LABORATORIES
1211 W. FLORIDA AVE
ODESSA TX 79701
(432) 563-1800
INV:
PO:
REF:
DEPT:
FedEx
Express
TRK#
0201
6606 3911 5975
FRI - 05 MAY 3:00P
STANDARD
41 MAFA

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Plains All American EH&S

Date/ Time Received: 05/06/2016 01:30:00 PM

Work Order #: 529711

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	**N/A**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Mary Alexis Negron
Mary Negron
Date: 05/06/2016

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 05/09/2016

Analytical Report 535108

for

Plains All American EH&S

Project Manager: Robbie Runnels

DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

18-AUG-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

18-AUG-16

Project Manager: **Robbie Runnels**
Plains All American EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No(s): **535108**
DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)
Project Address:

Robbie Runnels:

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) 535108. 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. 535108 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,

Julian Martinez
Project Manager

Sample Cross Reference 535108

Plains All American EH&S, Midland, TX

DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	08-04-16 13:00		535108-001
MW-3	W	08-04-16 11:30		535108-002
MW-4	W	08-04-16 10:30		535108-003
MW-5	W	08-04-16 09:30		535108-004
MW-6	W	08-04-16 08:30		535108-005

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 535108

Plains All American EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

Project Id:
Contact: Robbie Runnels
Project Location:

Date Received in Lab: Tue Aug-16-16 04:00 pm
Report Date: 18-AUG-16
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	535108-001		535108-002		535108-003		535108-004		535108-005	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6	
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Aug-04-16 13:00		Aug-04-16 11:30		Aug-04-16 10:30		Aug-04-16 09:30		Aug-04-16 08:30	
BTEX by EPA 8021B	***Extracted:***	Aug-17-16 15:30		Aug-17-16 15:30		Aug-17-16 15:30		Aug-17-16 15:30		Aug-17-16 15:30	
	Analyzed:	Aug-17-16 22:01		Aug-17-16 22:17		Aug-17-16 22:34		Aug-17-16 22:50		Aug-17-16 23:06	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Toluene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Ethylbenzene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
m_p-Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
o-Xylene		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total Xylenes		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200
Total BTEX		ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200	ND	0.00200

Julian Martinez
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

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

Work Orders : 535108,

Project ID:

Lab Batch #: 1000106 **Sample:** 535108-001 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 08/17/16 22:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 1000106 **Sample:** 535108-002 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 08/17/16 22:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 1000106 **Sample:** 535108-003 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 08/17/16 22:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 1000106 **Sample:** 535108-004 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 08/17/16 22:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 1000106 **Sample:** 535108-005 / SMP **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 08/17/16 23:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

Work Orders : 535108,

Project ID:

Lab Batch #: 1000106 **Sample:** 712761-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/16 17:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 1000106 **Sample:** 712761-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/16 15:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 1000106 **Sample:** 712761-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 08/17/16 16:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 1000106 **Sample:** 535071-001 S / MS **Batch:** 1 **Matrix:** Drinking Water

Units: mg/L **Date Analyzed:** 08/17/16 16:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 1000106 **Sample:** 535071-001 SD / MSD **Batch:** 1 **Matrix:** Drinking Water

Units: mg/L **Date Analyzed:** 08/17/16 16:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: DCP Plant to Lea Station 6" Sec. 31 (SRS # 2009-084)

Work Order #: 535108 **Project ID:**

Analyst: PJB **Date Prepared:** 08/17/2016 **Date Analyzed:** 08/17/2016

Lab Batch ID: 1000106 **Sample:** 712761-1-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	<0.00200	0.100	0.0817	82	0.100	0.0824	82	1	70-125	25	
Toluene	<0.00200	0.100	0.0861	86	0.100	0.0871	87	1	70-125	25	
Ethylbenzene	<0.00200	0.100	0.0906	91	0.100	0.0920	92	2	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.182	91	2	70-131	25	
o-Xylene	<0.00200	0.100	0.0901	90	0.100	0.0916	92	2	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 (SRS # 2009-084)

Work Order # : 535108 **Project ID:**

Lab Batch ID: 1000106 **QC- Sample ID:** 535071-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 08/17/2016 **Date Prepared:** 08/17/2016 **Analyst:** PJB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0825	83	0.100	0.0815	82	1	70-125	25	
Toluene	<0.00200	0.100	0.0860	86	0.100	0.0851	85	1	70-125	25	
Ethylbenzene	<0.00200	0.100	0.0915	92	0.100	0.0905	91	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.180	90	0.200	0.178	89	1	70-131	25	
o-Xylene	<0.00200	0.100	0.0909	91	0.100	0.0898	90	1	71-133	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY RECORD

XENCO Laboratories — Environmental Asbestos Radiochemistry

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

Page 1 of 1

LAB W.O #: 535108

Field billable Hrs :

Company: Basin Environmental Service Technologies, LLC		Phone: (575)396-2378	
Address: 3100 Plains Hwy.		Fax: (575)396-1429	
City: Lovington	State: NM	Zip: 88260	
PM/Attn: Robbie Runnels	Email:	cjbryant@paalp.com, rrunnels@basinenv.com	
Project ID: DCP Plant to Lea Station 6" Sec. 31 SRS #2009-084		PO#: PAA-C. Bryant	
Invoice To: Camille Bryant Plains All American		Quote #:	
Sampler Name: Abe Redecop	Circle One Event: Daily Weekly Monthly Quartely Semi-Annual Annual N/A		

TAT Work Days = D Need results by: Time:
Std (5-7D) 5Hrs 1D 2D 3D 4D **5D** **7D** 10D 14D Other

ANALYSES REQUESTED — Cont Type*: VP; Pres Type**: E, I; Example: Volatiles by 8260

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code^	Field Filtered	Integrity OK (Y/N)	Total # of Containers	BTEX									Hold Sample	REMARKS
		8-4-16						Lab Only:										
1	MW-2	8-4	1100	GW			3	X										
2	MW-3	8-4	1130	GW			3	X										
3	MW-4	8-4	1030	GW			3	X										
4	MW-5	8-4	9:30	GW			3	X										
5	MW-6	8-4	8:30	GW			3	X										
6																		
7																		
8																		
9																		
0																		

Reg. Program / Clean-up Std: CTLs TRRP DW NPDES LPST DryCln Other:

STATE for Certs & Regs: FL TX GA NC SC NJ PA OK LA AL NM Other:

QA/QC Level & Certification: 1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:

EDDs: ADaPT SEDD ERPIMS XLS Other:

COC & Lab: Match Incomp Absent Uncl

Temp: C/F:0 4.2 Corrected Temp: 4.2. IR ID:R-8

	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	Basin	8-12-16	5:00	Darla Reserve	MS	8-12-16	5:00
2					Julian A	Xenco	8-16-16	16:00
3								
4								

Lab Use Only — YES NO N/A

- Non-Conformances found?
- Samples intact upon arrival?
- Received on Wet Ice?
- Labeled with proper preservatives?
- Received within holding time?
- Custody seals intact?
- VOCs rec'd w/o headspace?
- Proper containers used?
- pH verified-acceptable, excl VOCs?
- Received on time to meet HTs?

C.O.C. Serial #

*** Container Type Codes**

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

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal 40ml, 125 ml, 250 ml, 500 ml, 1L, Other

**** Preservative Type Codes**

A. None; B. HNO_3; C. H_2SO_4; D. NaOH; E. HCL; F. MeOH; G. $Na_2S_2O_3$; H. $NaHSO_4$; I. Ice; J. MCAA; K. ZnAc&NaOH; L. Asbc Acid&NaOH; O.

^ Matrix Type Codes

GW Ground Water; WW Waste Water; DW Drinking Water; SW Surface Water; OW Ocean/Sea Water; PL Product-Liquid; PS Product-Solid; SL Sludge; Other; S Soil/Sediment/Solid; W Wipe; A Air; O Oil; T Tissue; U Urine; B Blood

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Plains All American EH&S

Date/ Time Received: 08/16/2016 04:00:00 PM

Work Order #: 535108

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	**N/A**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**No**
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**N/A**
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Mary Alexis Negron
Mary Negron
Date: 08/17/2016

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 08/17/2016

TRACEANALYSIS, INC.

Certificate of Analysis Summary 542902

Terracon Lubbock, Lubbock, TX

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

Project Id: AR167322
Contact: Joel Lowry
Project Location:

Date Received in Lab: Thu Dec-22-16 04:15 pm
Report Date: 04-JAN-17
Project Manager: Liz Givens

Analysis Requested											
	Lab Id:	542902-001		542902-002		542902-003		542902-004		542902-005	
	Field Id:	MW-2		MW-3		MW-4		MW-5		MW-6	
	Depth:										
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	Sampled:	Dec-22-16 13:30		Dec-22-16 13:46		Dec-22-16 14:10		Dec-22-16 14:15		Dec-22-16 14:40	
BTEX by EPA 8021B	***Extracted:***	Dec-27-16 16:00		Dec-27-16 16:00		Dec-27-16 16:00		Dec-27-16 16:00		Dec-27-16 16:00	
	Analyzed:	Dec-27-16 23:16		Dec-27-16 23:44		Dec-28-16 00:11		Dec-28-16 00:38		Dec-28-16 02:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		<0.00100	0.00100	0.00110	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Toluene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Ethylbenzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
m,p-Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
o-Xylene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total Xylenes		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100
Total BTEX		<0.00100	0.00100	0.00110	0.00100	<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100

Liz Givens
Project Manager

Final 1.000

Analytical Report 542902

for

Terracon Lubbock

Project Manager: Joel Lowry

DCP Plant to Lea Station 6'' Sec. 31

AR167322

04-JAN-17

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

04-JAN-17

Project Manager: **Joel Lowry**
Terracon Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **542902**
DCP Plant to Lea Station 6'' Sec. 31
Project Address:

Joel Lowry:

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) 542902. 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. 542902 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,

Liz Givens
Project Manager

TRACEANALYSIS, INC.

Sample Cross Reference 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	12-22-16 13:30		542902-001
MW-3	W	12-22-16 13:46		542902-002
MW-4	W	12-22-16 14:10		542902-003
MW-5	W	12-22-16 14:15		542902-004
MW-6	W	12-22-16 14:40		542902-005

CASE NARRATIVE

Client Name: Terracon Lubbock

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

Project ID:	*AR167322*	Report Date:	*04-JAN-17*
Work Order Number(s):	*542902*	Date Received:	*12/22/2016*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id:	**MW-2**	Matrix:	Water	Date Received:	12.22.16 16.15
Lab Sample Id:	542902-001	Date Collected:	12.22.16 13.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.27.16 16.00		
Seq Number:	3006800				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/L	12.27.16 23.16	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.27.16 23.16	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.27.16 23.16	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.27.16 23.16	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.27.16 23.16	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.27.16 23.16	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.27.16 23.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	97	%	66-120	12.27.16 23.16	
4-Bromofluorobenzene	460-00-4	111	%	67-120	12.27.16 23.16	

Certificate of Analytical Results 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id:	**MW-3**	Matrix:	Water	Date Received:	12.22.16 16.15
Lab Sample Id:	542902-002	Date Collected:	12.22.16 13.46		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.27.16 16.00		
Seq Number:	3006800				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00110**	0.00100	mg/L	12.27.16 23.44		1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.27.16 23.44	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.27.16 23.44	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.27.16 23.44	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.27.16 23.44	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.27.16 23.44	U	1
Total BTEX		**0.00110**	0.00100	mg/L	12.27.16 23.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	97	%	66-120	12.27.16 23.44	
4-Bromofluorobenzene	460-00-4	114	%	67-120	12.27.16 23.44	

Certificate of Analytical Results 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id:	**MW-4**	Matrix:	Water	Date Received:	12.22.16 16.15
Lab Sample Id:	542902-003	Date Collected:	12.22.16 14.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.27.16 16.00		
Seq Number:	3006800				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/L	12.28.16 00.11	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.28.16 00.11	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.28.16 00.11	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.28.16 00.11	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.28.16 00.11	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.28.16 00.11	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.28.16 00.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	97	%	66-120	12.28.16 00.11	
4-Bromofluorobenzene	460-00-4	112	%	67-120	12.28.16 00.11	

Certificate of Analytical Results 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id:	**MW-5**	Matrix:	Water	Date Received:	12.22.16 16.15
Lab Sample Id:	542902-004	Date Collected:	12.22.16 14.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.27.16 16.00		
Seq Number:	3006800				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/L	12.28.16 00.38	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.28.16 00.38	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.28.16 00.38	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.28.16 00.38	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.28.16 00.38	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.28.16 00.38	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.28.16 00.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	96	%	66-120	12.28.16 00.38	
4-Bromofluorobenzene	460-00-4	112	%	67-120	12.28.16 00.38	

Certificate of Analytical Results 542902

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" Sec. 31

Sample Id:	**MW-6**	Matrix:	Water	Date Received:	12.22.16 16.15
Lab Sample Id:	542902-005	Date Collected:	12.22.16 14.40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.27.16 16.00		
Seq Number:	3006800				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/L	12.28.16 02.00	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.28.16 02.00	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.28.16 02.00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.28.16 02.00	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.28.16 02.00	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.28.16 02.00	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.28.16 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	96	%	66-120	12.28.16 02.00	
4-Bromofluorobenzene	460-00-4	111	%	67-120	12.28.16 02.00	

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

Terracon Lubbock

DCP Plant to Lea Station 6" Sec. 31

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3006800 Matrix: Water Date Prep: 12.27.16

MB Sample Id: 717866-1-BLK LCS Sample Id: 717866-1-BKS LCSD Sample Id: 717866-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.101	101	0.102	102	15-147	1	20	mg/L	12.27.16 17:24	
Toluene	<0.00100	0.100	0.104	104	0.104	104	11-147	0	20	mg/L	12.27.16 17:24	
Ethylbenzene	<0.00100	0.100	0.105	105	0.103	103	10-149	2	20	mg/L	12.27.16 17:24	
m,p-Xylenes	<0.00200	0.200	0.211	106	0.207	104	62-124	2	25	mg/L	12.27.16 17:24	
o-Xylene	<0.00100	0.100	0.106	106	0.104	104	62-124	2	25	mg/L	12.27.16 17:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	98		100		97		66-120	%	12.27.16 17:24
4-Bromofluorobenzene	112		115		112		67-120	%	12.27.16 17:24

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3006800 Matrix: Water Date Prep: 12.27.16

Parent Sample Id: 542898-001 MS Sample Id: 542898-001 S MSD Sample Id: 542898-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0992	99	0.0987	99	15-147	1	20	mg/L	12.27.16 19:39	
Toluene	<0.00100	0.100	0.101	101	0.101	101	11-147	0	20	mg/L	12.27.16 19:39	
Ethylbenzene	<0.00100	0.100	0.100	100	0.101	101	10-149	1	20	mg/L	12.27.16 19:39	
m,p-Xylenes	<0.00200	0.200	0.201	101	0.203	102	62-124	1	25	mg/L	12.27.16 19:39	
o-Xylene	<0.00100	0.100	0.101	101	0.102	102	62-124	1	25	mg/L	12.27.16 19:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	98		97		66-120	%	12.27.16 19:39
4-Bromofluorobenzene	113		113		67-120	%	12.27.16 19:39

542902

Terracon

CHAIN OF CUSTODY RECORD

Laboratory: Xenco Laboratories
Address: 1211 W. Florida Ave. Midland, TX 79701 432-563-1800
Phone:
Contact: Joel Lowry
PO/SO #: SRS No. 2009-084
Sampler's Signature

Office Location: Lubbock
Project Manager: Joel Lowry
Sampler's Name: Joel Lowry

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C)

Page 1 of 1

Project Number: AR167322
Project Name: DCP Plant to Lea Station 6" Sec. 31

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers: 40 ml VOA						VOCs (EPA Method 8021B) BTEX					Lab Sample ID
GW	12/22/2016	13:30		x	MW-2			3						x					542902-001
GW	12/22/2016	13:46		x	MW-3			3						x					002
GW	12/22/2016	14:10		x	MW-4			3						x					003
GW	12/22/2016	14:15		x	MW-5			3						x					004
GW	12/22/2016	14:40		x	MW-6			3						x					005

TURNAROUND TIME ☐ Normal ☐ 48-Hour Rush ☐ 24-Hour Rush

TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Joel Lowry	12/27/16	4:15			
			Brenda Ward	12/22/16	4:15 pm

NOTES:

Please Email Results to
erin.loyd@terracon.com
joel.lowry@terracon.com
cjbryant@paapl.com

C angely 4.4/4.5

Matrix: WW-Wastewater, W - Water, S - Soil, L - Liquid, A - Air Bag, C - Charcoal tube, SL - Sludge
Container: VOA - 40 ml vial, A/G - Amber Glass 1L, 250 ml = Glass wide mouth, P/O - Plastic or other ____

APPENDIX D

Table 3 – Historical Quarterly Groundwater Elevation and PSH Thickness Data
Table 4 – Historical Groundwater Analytical Summary - BTEX
Table 5 – Historical Groundwater Analytical Summary - PAHs

TABLE 3
2016 ANNUAL REPORT

HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	09/29/09	3,539.59	69.82	69.83	0.01	3,469.77
	12/10/09	3,539.59	69.51	71.41	1.90	3,469.80
	2/3/2012	3,539.59	79.55	83.00	3.45	3,459.52
	5/1/2012	3,539.59	78.46	83.00	4.54	3,460.45
	8/20/2012	3,539.59	78.50	82.95	4.45	3,460.42
	11/9/2012	3,539.59	*	*	*	*
	2/5/2013	3,539.59	79.95	82.80	2.85	3,459.21
	5/30/2013	3,539.59	83.64	86.23	2.59	3,455.56
	8/5/2013	3,539.59	*	*	*	*
	11/13/2013	3,539.59	*	*	*	*
	02/14/2014	3,539.59	82.68	86.32	3.64	3,456.36
	05/08/2014	3,539.59	*	*	*	*
	08/05/2014	3,539.59	82.68	85.77	3.09	3,456.45
	11/07/2014	3,539.59	*	*	*	*
	02/19/2015	3,539.59	83.39	86.32	2.93	3,455.76
	05/06/2015	3,539.59	83.57	84.07	0.50	3,455.95
	08/20/2015	3,539.59	83.67	86.19	2.52	3,455.54
	11/19/2015	3,539.59	83.43	86.00	2.57	3,455.77
	02/10/2016	3,539.59	*	*	*	*
	05/03/2016	3,539.59	*	*	*	*
	08/04/2016	3,539.59	*	*	*	*
	12/22/2016	3,539.59	83.05	86.01	2.96	3,456.10
MW-2	09/29/09	3,539.39	-	82.26	-	3,457.13
	12/10/09	3,539.39	-	82.36	-	3,457.03
	2/3/2012	3,539.37	-	81.00	-	3,458.37
	5/1/2012	3,539.37	-	82.60	-	3,456.77
	8/20/2012	3,539.37	-	82.75	-	3,456.62
	11/9/2012	3,539.37	-	82.76	-	3,456.61
	2/5/2013	3,539.37	-	82.75	-	3,456.62
	5/30/2013	3,539.37	-	82.90	-	3,456.47
	8/5/2013	3,539.37	-	82.91	-	3,456.46
	11/13/2013	3,539.37	-	82.89	-	3,456.48
	02/14/2014	3,539.37	-	82.92	-	3,456.45
	05/08/2014	3,539.37	-	82.93	-	3,456.44
	08/05/2014	3,539.37	-	82.97	-	3,456.40
	11/07/2014	3,539.37	-	83.02	-	3,456.35
	02/19/2015	3,539.37	-	83.04	-	3,456.33
	05/06/2015	3,539.37	-	83.03	-	3,456.34
	08/14/2015	3,539.37	-	82.73	-	3,456.64
	11/19/2015	3,539.37	-	83.10	-	3,456.27
	02/10/2016	3,539.37	-	83.10	-	3,456.27
	05/03/2016	3,539.37	-	83.10	-	3,456.27
	08/04/2016	3,539.37	-	83.08	-	3,456.29
	12/22/2016	3,539.37	-	83.21	-	3,456.16

TABLE 3
2016 ANNUAL REPORT

HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	09/29/09	3,539.31	-	82.54	-	3,456.77
	12/10/09	3,539.31	-	82.67	-	3,456.64
	2/3/2012	3,539.28	-	83.00	-	3,456.28
	5/1/2012	3,539.28	-	83.00	-	3,456.28
	8/20/2012	3,539.28	-	83.06	-	3,456.22
	11/9/2012	3,539.28	-	83.01	-	3,456.27
	2/5/2013	3,539.28	-	83.08	-	3,456.20
	5/30/2013	3,539.28	-	83.21	-	3,456.07
	8/5/2013	3,539.28	-	83.20	-	3,456.08
	11/13/2013	3,539.28	-	83.24	-	3,456.04
	02/14/2014	3,539.28	-	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
	02/19/2015	3,539.28	-	83.34	-	3,455.94
	05/06/2015	3,539.28	-	83.35	-	3,455.93
	08/14/2015	3,539.28	-	83.29	-	3,455.99
	11/19/2015	3,539.28	-	83.43	-	3,455.85
	02/10/2016	3,539.28	-	83.48	-	3,455.80
	05/03/2016	3,539.28	-	83.45	-	3,455.83
	08/04/2016	3,539.28	-	83.44	-	3,455.84
	12/22/2016	3,539.28	-	83.51	-	3,455.77
MW-4	09/29/09	3,540.12	-	83.58	-	3,456.54
	12/10/09	3,540.12	-	84.68	-	3,455.44
	2/3/2012	3,540.07	-	84.05	-	3,456.02
	5/1/2012	3,540.07	-	83.93	-	3,456.14
	8/20/2012	3,540.07	-	84.11	-	3,455.96
	11/9/2012	3,540.07	-	83.99	-	3,456.08
	2/5/2013	3,540.07	-	84.13	-	3,455.94
	5/30/2013	3,540.07	-	84.28	-	3,455.79
	8/5/2013	3,540.07	-	84.25	-	3,455.82
	11/13/2013	3,540.07	-	84.29	-	3,455.78
	02/14/2014	3,540.07	-	84.33	-	3,455.74
	05/08/2014	3,540.07	-	84.32	-	3,455.75
	08/05/2014	3,540.07	-	84.34	-	3,455.73
	11/07/2014	3,540.07	-	84.46	-	3,455.61
	02/19/2015	3,540.07	-	84.41	-	3,455.66
	05/06/2015	3,540.07	-	84.40	-	3,455.67
	08/14/2015	3,540.07	-	84.34	-	3,455.73
	11/19/2015	3,540.07	-	84.50	-	3,455.57
	02/10/2016	3,540.07	-	84.50	-	3,455.57
	05/03/2016	3,540.07	-	84.47	-	3,455.60
	08/04/2016	3,540.07	-	84.48	-	3,455.59
	12/22/2016	3,540.07	-	84.54	-	3,455.53

TABLE 3
2016 ANNUAL REPORT

HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-5	2/3/2012	3,539.90		83.60		3,456.30
	5/1/2012	3,539.90		83.75		3,456.15
	8/20/2012	3,539.90		83.68		3,456.22
	11/9/2012	3,539.90		83.72		3,456.18
	2/5/2013	3,539.90	-	83.80	-	3,456.10
	5/30/2013	3,539.90	-	83.89	-	3,456.01
	8/5/2013	3,539.90	-	83.85	-	3,456.05
	11/13/2013	3,539.90	-	83.90	-	3,456.00
	02/14/2014	3,539.90	-	83.95	-	3,455.95
	05/08/2014	3,539.90	-	83.94	-	3,455.96
	08/05/2014	3,539.90	-	84.00	-	3,455.90
	11/07/2014	3,539.90	-	84.00	-	3,455.90
	02/19/2015	3,539.90	-	84.02	-	3,455.88
	05/06/2015	3,539.90	-	84.04	-	3,455.86
	08/14/2015	3,539.90	-	84.00	-	3,455.90
	11/19/2015	3,539.90	-	84.12	-	3,455.78
	02/10/2016	3,539.90	-	84.14	-	3,455.76
	05/03/2016	3,539.90	-	84.10	-	3,455.80
	08/04/2016	3,539.90	-	84.12	-	3,455.78
	12/22/2016	3,539.90	-	84.18	-	3,455.72
MW-6	9/25/2013	3540.82	-	83.80	-	3,457.02
	11/13/2013	3540.82	-	84.79	-	3,456.03
	02/14/2014	3540.82	-	84.81	-	3,456.01
	05/08/2014	3540.82	-	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
	02/19/2015	3540.82	-	84.91	-	3,455.91
	05/06/2015	3540.82	-	84.92	-	3,455.90
	08/14/2015	3540.82	-	84.65	-	3,456.17
	11/19/2015	3540.82	-	85.00	-	3,455.82
	02/10/2016	3540.82	-	85.00	-	3,455.82
	05/03/2016	3540.82	-	84.96	-	3,455.86
	08/04/2016	3540.82	-	85.03	-	3,455.79
	12/22/2016	3540.82	-	85.05	-	3,455.77

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

** Indicates Monitor Well was not gauged due to the presences of a Mobile Dual Phase Estraction (MDPE) unit.*

TABLE 4
2016 ANNUAL REPORT

HISTORIC GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8260b						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-1	12/10/2009	19.0	13.09	0.812	1.894	0.729	2.623	35.525
MW-2	9/29/2009	<0.005	<0.005	<0.005	<0.01	<0.005	<0.01	<0.01
	12/10/2009	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	3/18/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/27/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/26/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	10/29/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	3/25/2011	0.0072	0.0068	<0.0010	<0.0020	<0.0010	<0.0020	0.0139
	5/26/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/17/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/29/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/3/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/1/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/20/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/30/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/6/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/18/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/8/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	8/4/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200

TABLE 4
2016 ANNUAL REPORT

HISTORIC GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

MW-3	9/29/2009	<0.005	<0.005	<0.005	<0.01	<0.005	<0.01	<0.01
	12/10/2009	0.0031	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0031
	3/18/2010	0.0054	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0054
	5/27/2010	0.0043	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0043
	8/26/2010	0.0053	0.0023	<0.0010	<0.0020	<0.0010	<0.0020	0.0076
	10/29/2010	**0.0129**	0.0046	<0.0010	<0.0020	<0.0010	<0.0020	0.0175
	3/25/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/26/2011	0.00425	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.00425
	8/17/2011	**0.0138**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0138
	11/29/2011	0.0050	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0050
	2/3/2012	**0.024**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0240
	5/1/2012	**0.031**	0.0022	<0.0010	<0.0020	<0.0010	<0.0020	0.0332
	8/20/2012	**0.011**	<0.0020	0.0045	0.0303	0.0226	0.0303	0.0680
	11/9/2012	**0.026**	<0.0020	<0.0010	<0.0020	0.0017	<0.0020	0.0277
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/30/2013	**0.0101**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0101
	8/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	0.0024	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0024
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/19/2015	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0013
	5/6/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/18/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/8/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	8/4/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	0.00110	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	0.00110
MW-4	9/29/2009	<0.005	<0.005	<0.005	<0.01	<0.005	<0.01	<0.01
	12/10/2009	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	3/25/2011	0.0051	0.0046	<0.0010	<0.0020	<0.0010	<0.0020	0.0097
	5/26/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/17/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/29/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/3/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/1/2012	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0011
	8/20/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/9/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/30/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2013	0.0033	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0033
	11/13/2013	0.0023	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0023
	2/14/2014	**0.0240**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0240
	5/8/2014	0.0079	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0079
	8/5/2014	0.0069	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0069
	11/7/2014	0.0047	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0047
	2/19/2015	0.0045	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0045
	5/6/2015	0.0027	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0027
	8/18/2015	0.0020	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0020
	12/8/2015	0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0010
	2/10/2016	0.00214	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	0.00214
	5/3/2016	0.00205	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00205
	8/4/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200

TABLE 4
2016 ANNUAL REPORT

HISTORIC GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH SEC. 31
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-084
NMOCD REFERENCE #: 1RP-2166
TERRACON PROJECT #: AR167322

MW-5	3/25/2011	**0.371**	<0.0020	<0.0050	0.0115	0.0060	0.0175	0.3885
	5/26/2011	**1.12**	0.0265	<0.0010	0.0137	0.0138	0.0275	1.17
	8/17/2011	**1.73**	0.0560	<0.0020	<0.0040	0.0210	0.0210	1.81
	11/29/2011	**0.233**	0.0073	<0.0010	0.0020	0.00188	0.00388	0.244
	2/3/2012	**0.442**	0.0053	<0.0010	<0.0020	0.0020	<0.0020	0.449
	5/1/2012	**0.477**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.477
	8/20/2012	**0.249**	0.0046	<0.0010	<0.0020	<0.0010	<0.0020	0.254
	11/9/2012	**0.541**	0.0145	<0.0050	<0.0100	<0.0050	<0.0100	0.556
	2/5/2013	0.0042	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0042
	5/30/2013	**0.0201**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0201
	8/5/2013	**0.0107**	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0107
	11/13/2013	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0013
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/6/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/18/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/8/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	8/4/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
MW-6	9/25/2013	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/6/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/18/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/8/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	8/4/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			

TABLE 5
2016 ANNUAL REPORT

HISTORIC CONCENTRATIONS OF POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)[1] IN GROUNDWATER
DCP PLANT TO LEA STATION 6-INCH SEC 31
PLAINS SRS #: 2009-084
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2166
TERRACON PROJECT #: AR167322

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		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	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-1	12/10/2009	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
MW-2	9/29/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005
MW-3	9/29/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005
MW-3	12/16/2011	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.0111	<0.00556	<0.0111	<0.0111	<0.0111	<0.0111
MW-3	11/9/2012	<0.00035	<0.00033	<0.00016	<0.00024	<0.00019	<0.00036	<0.00049	<0.00028	<0.00022	<0.00019	<0.00024	<0.00030	<0.00032	<0.00031	<0.00048	<0.00031	<0.00027	<0.00027
MW-4	9/29/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<0.005	<0.005	<0.005
MW-4	12/21/2011	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.00510	<0.0102	<0.0102	<0.0102	<0.0102
MW-5	3/25/2011	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100			<0.0100	<0.0100
MW-5	11/9/2012	<0.00037	<0.00034	<0.00016	<0.00025	<0.00020	<0.00038	<0.00051	<0.00029	<0.00023	<0.00020	<0.00025	<0.00031	<0.00034	<0.00032	<0.00049	<0.00032	<0.00028	<0.00028
MW-5	12/23/2013	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	0.00054	<0.000049	<0.000049
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
Maximum Contaminant Levels for NM WQCC Drinking Water Standards Sections 1-101.UU and 3-103A.		**NA**	**NA**	**0.001**	**0.0001**	**0.0007**	**0.001**	**NA**	**0.001**	**0.0002**	**0.0003**	**0.001**	**0.001**	**0.0004**	**0.03**			**0.001**	**0.001**

PAH[1]=Polynuclear aromatic hydrocarbon concentrations analyzed in accordance with EPA SW846-8270C and 3510

APPENDIX E

Release Notification and 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
APR 29 2009
HOBBSOCD

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	**Plains Pipeline, LP**	Contact	**Jason Henry**
Address	**2530 Hwy 214 – Denver City, Tx 79323**	Telephone No.	**(575) 441-1099**
Facility Name	**DCP Plant to Lea Station 6-inch Sec. 31**	Facility Type	**Pipeline**

Surface Owner **NM SLO**	Mineral Owner	Lease No.

LOCATION OF RELEASE

NEARBY WELL API # 30-025-06300-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	**31**	**20S**	**37E**					**Lea**

Latitude **N 32.52733°** Longitude **W 103.2906°**

NATURE OF RELEASE

Type of Release **Crude Oil**	Volume of Release **20 bbls**	Volume Recovered **0 bbls**
Source of Release **6" Steel Pipeline**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **04/02/2009 15:00**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ **Not Required**	If YES, To Whom? **on 04/29/2009 Larry Johnson (initial estimate = 2-3 bbls based on small surface stain)**	
By Whom? **Jason Henry**	Date and Hour **04/29/2009 @ 09:00 (revised to reportable on 04/29/2009)**	
Was a Watercourse Reached? ☐ Yes ☒ **No**	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

External corrosion of 6" inch pipeline caused a release of crude oil. A clamp was installed on the pipeline to mitigate the release. Throughput for the subject line is 660 bbls/day and the operating pressure of the pipeline is 45 psi. The depth of the pipeline at the release point is approximately 2' bgs. The H2S concentration in the crude is less than 10 ppm and the gravity of the crude is 65.

Describe Area Affected and Cleanup Action Taken.*

The released crude resulted in a surface stain that measured approximately 6' x 8'. The impacted area will be remediated per applicable guidelines.

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

Signature: Jason Henry	OIL CONSERVATION DIVISION
Printed Name: **Jason Henry**	Approved by District Supervisor: Johnson ENVIRONMENTAL ENGINEER
Title: **Remediation Coordinator**	Approval Date: 4.29.09 Expiration Date: 6.29.09
E-mail Address: **jhenry@paalp.com**	Conditions of Approval: Attached ☐
Date: 04/29/2009 Phone: **(575) 441-1099**	IRP# 09.4.2166

* Attach Additional Sheets If Necessary

fGRL0912057827

APPENDIX F

CD of the 2016 Annual Groundwater Monitoring Report