

# 2016 Annual Groundwater Monitoring Report

DCP Plant to Lea Station 6-Inch #2  
Plains SRS Number: 2009-039  
Lea County, New Mexico

March 30, 2017  
Terracon Project No. AR167321  
NMOCD Reference No. 1R-2136



**Prepared for:**  
Plains Marketing, LP  
Midland, Texas

**Prepared by:**  
Terracon Consultants, Inc.  
Lubbock, Texas

[terracon.com](http://terracon.com)

**Terracon**

Environmental    ■    Facilities    ■    Geotechnical    ■    Materials



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 #2  
U/L "F", Sec. 31, T20S, R37E  
Lea County, New Mexico  
NMOCD Reference No. 1R – 2136  
Plains Marketing, L.P. SRS NO. 2009-039  
Terracon Project No. AR167321

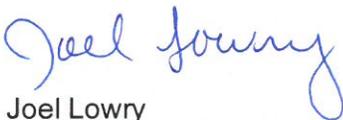
Dear Ms. Bryant:

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,  


Prepared by:



Joel Lowry  
Project Geologist  
Lubbock

Reviewed by:



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

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**2016 ANNUAL GROUNDWATER MONITORING REPORT**

**DCP Plant to Lea Station 6-Inch #2**  
**Plains SRS No: 2009-039**  
**Unit Letter “F”, Section 31, Township 20 South, Range 37 East**  
**Lea County, New Mexico**  
**NMOCD Reference No. 1R – 2136**  
**Terracon Project No. AR167321**

**1.0 INTRODUCTION**

**1.1 Site Description**

The legal description of the DCP Plant to Lea Station 6-Inch #2 release site is Unit Letter “F” (SE/NW), 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 32.5316667° North latitude and 103.2911111° West longitude. A “Site Location Map” is provided as Figure 1 in Appendix A.

<b>Site Name</b>	DCP Plant to Lea Station 6-Inch #2
<b>Site Location</b>	Latitude 32.5316667° North, Longitude 103.2911111° West
<b>General Site Description</b>	The site consists of seven groundwater monitoring wells located in, and adjacent to, a pipeline right-of-way surrounded by native pasture land.
<b>Landowner</b>	State of New Mexico

**1.2 Background Information**

Based on information provided by the client, on February 12, 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. Approximately 25 barrels (bbls) of crude oil was released from the pipeline, resulting in a surface stain measuring approximately 10 feet (ft.) in width and 12 ft. in length. Plains notified the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office of the release, and a "Release Notification and Corrective Action" (Form C-141) was submitted. The cause of the release was attributed to external corrosion of the pipeline.

On February 17, 2009, following initial response activities, excavation of hydrocarbon-impacted soil began at the site. Excavated soil was stockpiled on-site on a plastic liner to mitigate the potential leaching of contaminants into the vadose zone. Approximately 2,700 cubic yards (cy) of

soil was stockpiled on-site during excavation activities. The final dimensions of the excavation were approximately 66 ft. in width, approximately 80 ft. in length, and approximately 15 ft. in depth. Upon completion of the excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of laboratory analytical results indicated soil samples collected from the excavation and stockpiles were less than NMOCD regulatory standards.

On April 15, 2009, soil boring SB-1 was advanced at the release site to evaluate the vertical extent of soil impact. During the advancement of the soil boring, groundwater was encountered at approximately 61 ft. drilling depth, or approximately 76 ft. below ground surface (bgs). A temporary casing was installed in the soil boring to allow a groundwater sample to be collected for analysis. During the collection of the groundwater sample, a measurable thickness of phase separated hydrocarbon (PSH) was observed on the groundwater. Plains immediately notified NMOCD representatives in the Hobbs District Office and the NMOCD Environmental Bureau (Santa Fe) of the impact to groundwater at the release site. On April 16, 2009, soil boring SB-1 was converted to 4-inch monitor well (MW-1).

On June 29, 2009, two additional monitoring wells (MW-2, MW-3, and MW-4) were installed to evaluate the status of the groundwater at the site. Monitor well MW-2 is located approximately 135 ft. to the northwest (up-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 90 ft. bgs. Monitor well MW-3 is located approximately 80 ft. to the southwest (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 90 ft. bgs. Monitor well MW-4 is located approximately 115 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 88 ft. bgs. PSH was not observed in monitor wells MW-2, MW-3, or MW-4.

On August 25, 2009, a 20-millimeter polyurethane liner was installed in the excavation. Monitor well MW-1, located within the excavation, was extended to the top of the excavation using a 4-inch diameter PVC riser. The riser was fitted with a 40-millimeter boot, which was chemically welded to the 20-millimeter liner to ensure impermeability of the liner. The liner was cushioned by a 6-inch layer of sand above and below the liner to protect the liner from damage during backfilling activities. The excavation was backfilled with the stockpiled soil and compacted in 12-inch lifts. The disturbed areas were contoured to fit the surrounding topography and seeded with a New Mexico State Land Office (NMSLO)-approved seeding mixture. Supplemental seeding occurred on October 12, 2010.

On January 24, 2011, an additional monitoring well (MW-5) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-5 is located approximately 50 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 95 ft. bgs. PSH was not observed in monitor well MW-5. Laboratory analytical results of soil samples collected during the installation of monitor well MW-5 indicated benzene, toluene, ethylbenzene, total xylene (BTEX), and total petroleum hydrocarbon

concentrations were less than NMOCD regulatory standards in all submitted soil samples.

On September 10, 2013, two additional monitoring wells (MW-6 and MW-7) were installed to further monitor the down-gradient migration of the dissolved-phase plume and to delineate the horizontal extent of PSH. Monitor well MW-6 is located approximately 125 ft. to the east-southeast (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 95 ft. bgs. Monitor well MW-7 is located approximately 175 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 100 ft. bgs. Laboratory analytical results from soil samples collected during the installation of monitor wells MW-6 and MW-7 indicated benzene, BTEX, and TPH concentrations were less than NMOCD regulatory standards in all submitted soil samples. PSH was not observed in MW-6 or MW-7.

On October 18, 2016, Terracon assumed oversight of groundwater monitoring activities at the DCP Plant to Lea Station 6-Inch #2 release site. There are a total of seven monitor wells located at the site. Monitor wells MW-2 through MW-7 are gauged and sampled on a quarterly schedule; monitor well 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 an *Annual Groundwater Monitoring Report* by April 1<sup>st</sup> 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 quarterly groundwater monitoring events on November 11 and December 22, 2016. Quarterly groundwater monitoring events conducted on February 10 and May 3, 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 1,255.5 gallons (30 bbls) of PSH was recovered from MW-1, by manual recovery, in 2016. During the last recovery event conducted during the 2016 reporting period, the PSH thickness in MW-1 measured 0.70 feet. An estimated 5,975 gallons (142 bbls) of PSH has been manually recovered from MW-1 since recovery operations began in April 2009.

On July 18, 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 Sec. 31 (NMOCD Reference #1RP-2166), and the location of the unit is alternated periodically. During the 2016 reporting period, an estimated 1,425 gallons (34 bbls) of PSH in the vapor phase and an estimated 611 gallons (14.5 bbls) of PSH in the liquid phase were

recovered by the MDPE unit, for a total of an estimated 2,036 equivalent gallons (48.5 bbls) of PSH. To date, an estimated 7,616 equivalent gallons (181 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 Recovery**

An estimated 1,453 gallons (34.6 bbls) of hydrocarbon impacted groundwater have been recovered from monitor well MW-5, by manual recovery, since recovery operations began on January 22, 2016. Recovered fluids are disposed of at an NMOCD-approved disposal facility.

## **2.3 Groundwater Monitoring**

Quarterly groundwater monitoring events were conducted on February 10 (1Q2016), May 3 (2Q2016), November 1 (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 above ground storage tank 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 ranged from 0.002 foot per foot (ft/ft) toward the southeast to 0.0007 ft/ft toward the northwest. 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), November 1 (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 BTEX concentrations were less than the applicable laboratory sample detection limit during each quarter of the 2016 reporting period.

#### Monitor Well MW-4

- ☐ 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-5

- ☐ Laboratory analytical results indicated benzene concentrations exceeded the NMOCD regulatory standard during each quarter of 2016. The detected benzene concentrations ranged from 2.42 milligrams per liter (mg/L) during the 2<sup>nd</sup> Quarter of 2016 to 8.04 mg/L during the 1<sup>st</sup> Quarter of 2016.
- ☐ Laboratory analytical results indicated toluene concentrations exceeded the NMOCD regulatory standard during the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Quarters of 2016. The detected toluene concentrations ranged from 0.631 mg/L during the 2<sup>nd</sup> Quarter of 2016 to 2.09 mg/L during the 3<sup>rd</sup> Quarter of 2016.

**Plains Marketing, L.P.**

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February 9, 2017 ■ Terracon Project Number AR167321

- Ⓢ Laboratory analytical results indicated ethylbenzene concentrations were below the NMOCD regulatory standard during each quarter of 2016. The detected ethylbenzene concentrations ranged from 0.102 mg/L during the 2<sup>nd</sup> Quarter of 2016 to 0.393 mg/L during the 3<sup>rd</sup> Quarter of 2016.
- Ⓢ Laboratory analytical results indicated total xylene concentrations exceeded the NMOCD regulatory standard during the 3<sup>rd</sup> Quarter of 2016. The detected total xylene concentrations ranged from 0.183 mg/L during the 2<sup>nd</sup> Quarter of 2016 to 0.817 mg/L during the 3<sup>rd</sup> Quarter of 2016.

**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.

**Monitor Well MW-7**

- Ⓢ 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 seven groundwater monitor wells (MW-1 through MW-7) located at the site.
- Ⓢ Monitor well MW-1 was not sampled during the 2016 reporting period due to the presence of PSH.
- Ⓢ Monitor wells MW-2 through MW-7 were sampled during each quarter of 2016.
- Ⓢ Benzene, toluene, ethylbenzene and total xylene concentrations were not detected at concentrations above applicable laboratory SDLs in groundwater samples collected from each of the monitor wells with the exception of monitor well MW-5.
- Ⓢ The detected benzene, toluene and/or total xylene concentrations in monitor well MW-5 exceeded the NMOCD regulatory standards during one or more quarters of the 2016 reporting period.
- Ⓢ The PSH thickness in monitor well MW-1 was 0.70 ft during the last recovery event conducted in 2016.
- Ⓢ An estimated 1,255 gallons (30 bbls) of PSH were recovered manually from monitor well MW-1 during the 2016 reporting period.
- Ⓢ An estimated 8,721 (207 bbls) of PSH were recovered in the vapor phase and an estimated 611 gallons (14.5 bbls) of PSH in the liquid phase from monitor well MW-1 during the 2016 reporting period.
- Ⓢ An estimated 1,453 gallons (34.6 bbls) of hydrocarbon impacted groundwater were recovered manually from monitor well MW-5 during the 2016 reporting period.

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DCP Plant to Lea Station 6-Inch #2 ■ Lea County, New Mexico  
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- ⌚ Groundwater flow direction ranged from 0.002 foot per foot (ft/ft) toward the southeast to 0.0007 ft/ft toward the northwest.

## **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 manual PSH recovery will continue on monitor well MW-1, when the MDPE is off-site.
- ⌚ In an effort to control the down-gradient migration of the dissolved-phase plume, weekly recovery will continue from monitor well MW-5.
- ⌚ Monitor wells MW-2 through MW-7 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.

**Plains Marketing, L.P.**

DCP Plant to Lea Station 6-Inch #2 ■ Lea County, New Mexico  
February 9, 2017 ■ Terracon Project Number AR167321

**7.0 DISTRIBUTION**

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Lubbock, Texas 79424  
[joel.lowry@terracon.com](mailto: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)

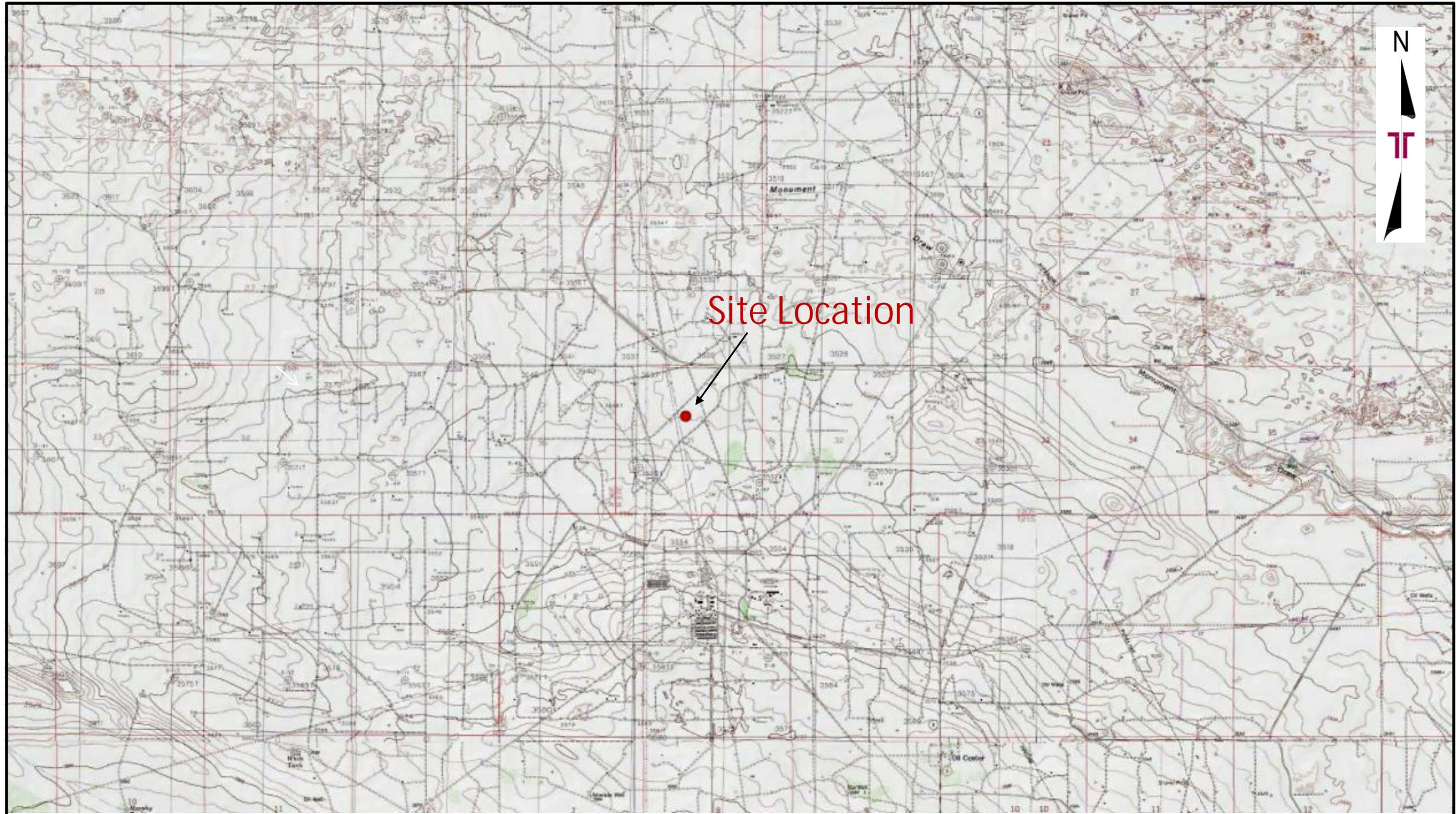
Figure 2d – Groundwater Gradient Map (4Q2016)

Figure 3a – Groundwater Concentration Map (1Q2016)

Figure 3b – Groundwater Concentration Map (2Q2016)

Figure 3c – Groundwater Concentration Map (3Q2016)

Figure 3d – Groundwater Concentration Map (4Q2016)



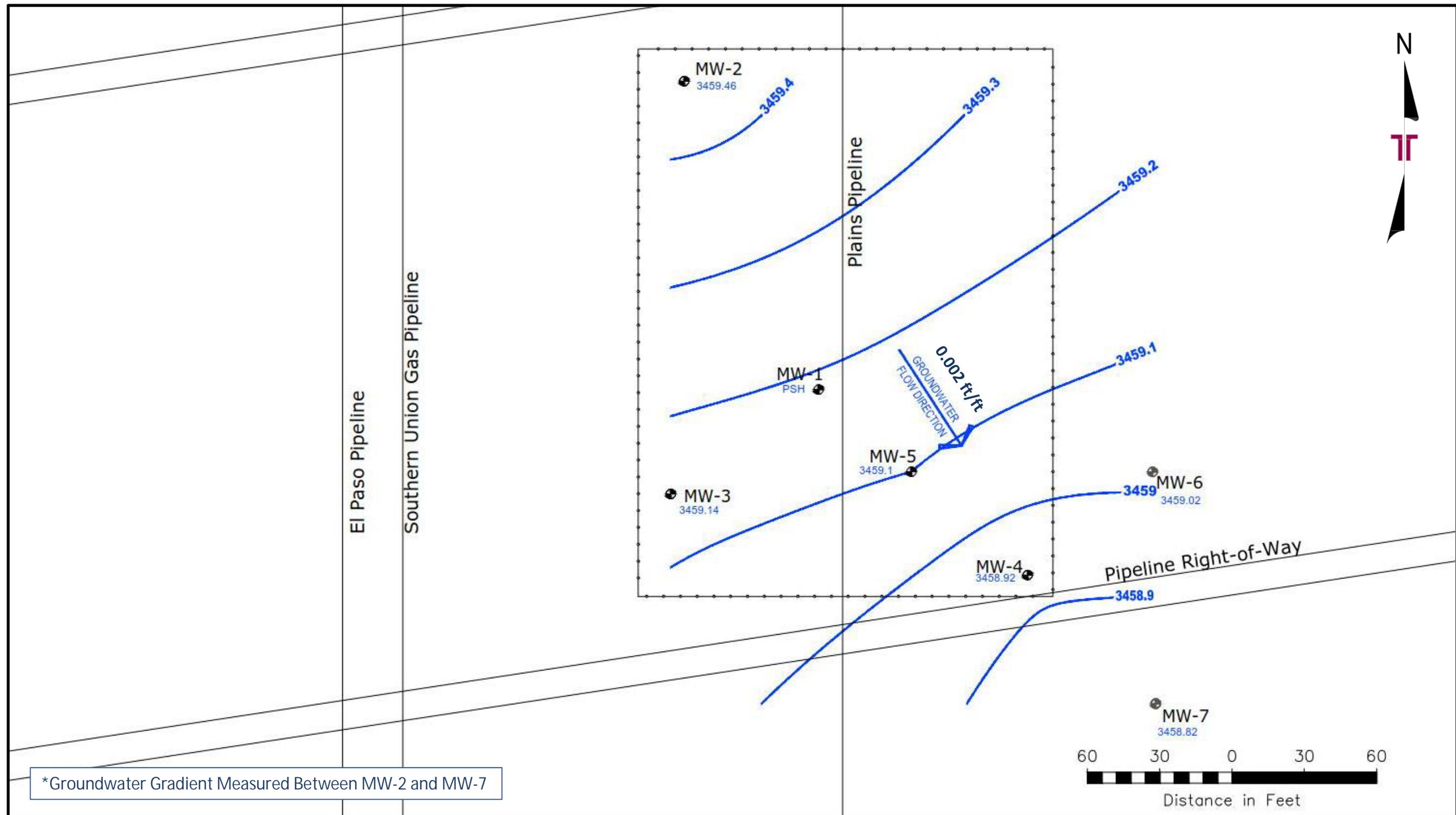
Project No.	AR167321
Scale:	1" = 1 Mile
Source:	Google Earth
Date:	2014

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 Consulting Engineers & Scientists

5827 50<sup>th</sup> 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 #2  
 NMOCD Ref. No. 1RP-2136  
 32.53166° , -103.29111°  
 Lea County, New Mexico

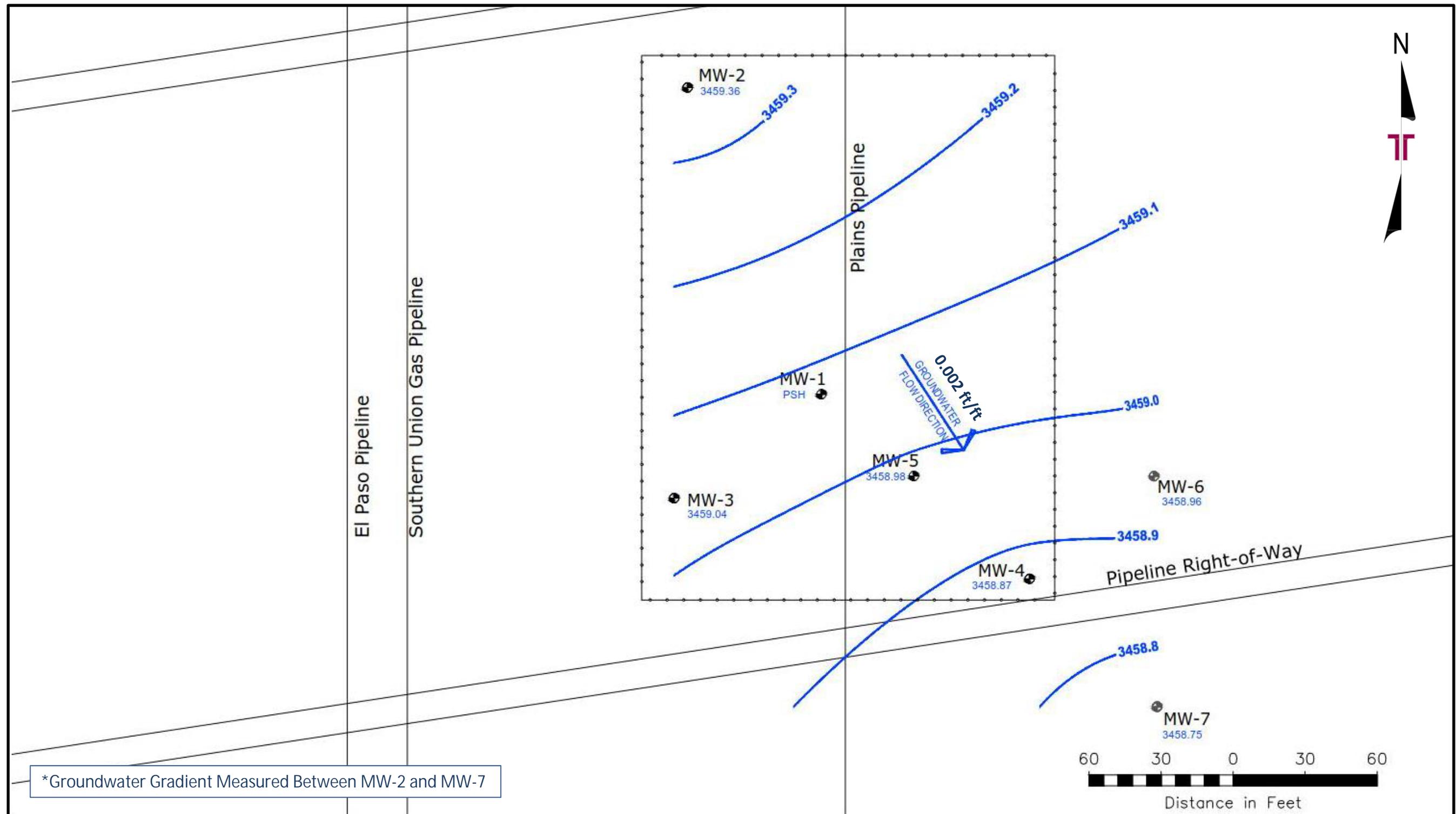


\*Groundwater Gradient Measured Between MW-2 and MW-7

Project No.	AR167321
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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**Figure 2a – Groundwater Gradient Map 1Q2016**  
 DCP Plant to Lea Station 6-Inch #2  
 NMOCD Ref. No. 1RP-2136  
 32.53166° , -103.29111°  
 Lea County, New Mexico

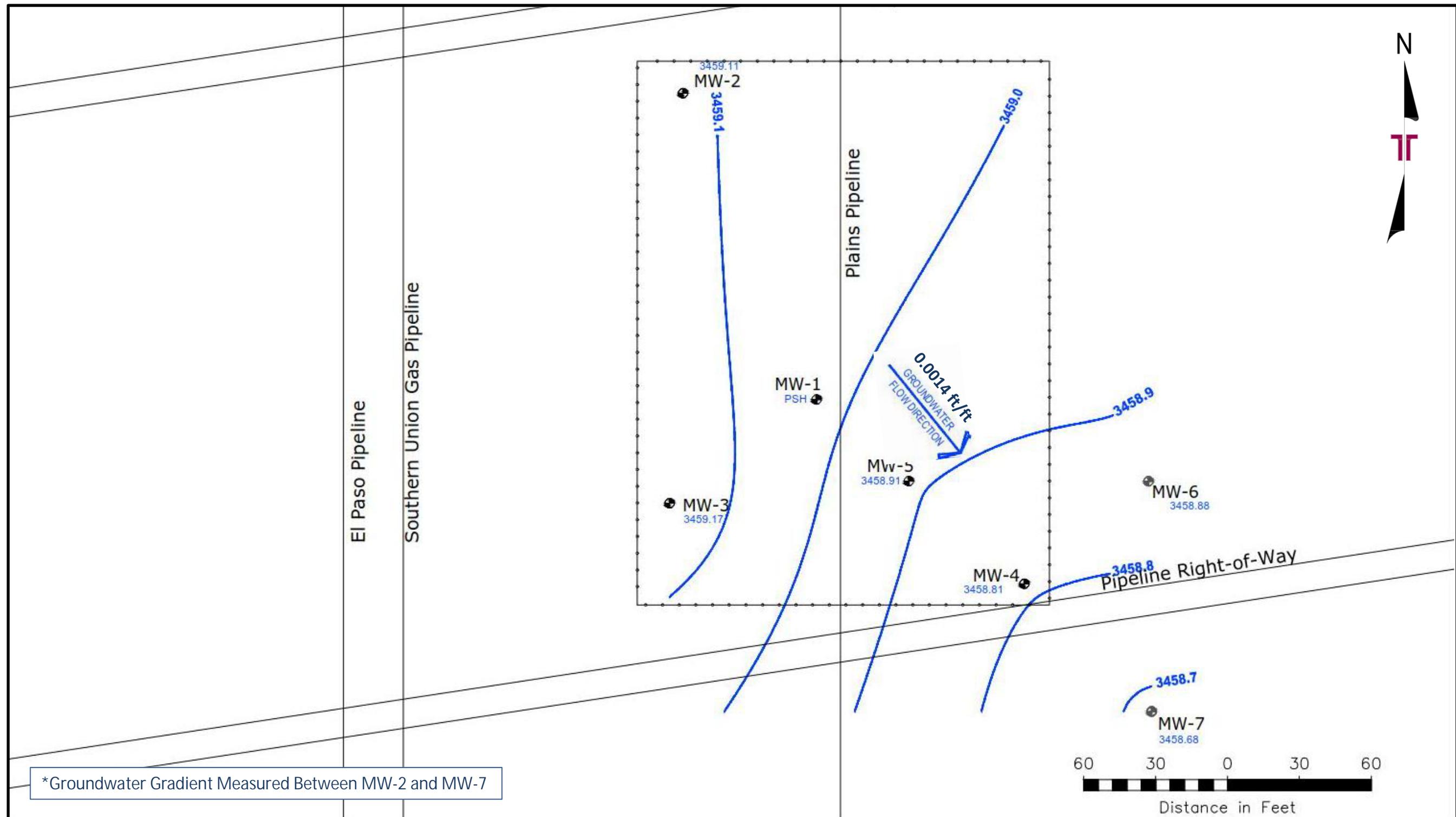


Project No.	AR167321
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 2b – Groundwater Gradient Map 2Q2016

DCP Plant to Lea Station 6-Inch #2  
 NMOCD Ref. No. 1RP-2136  
 32.53166° , -103.29111°  
 Lea County, New Mexico



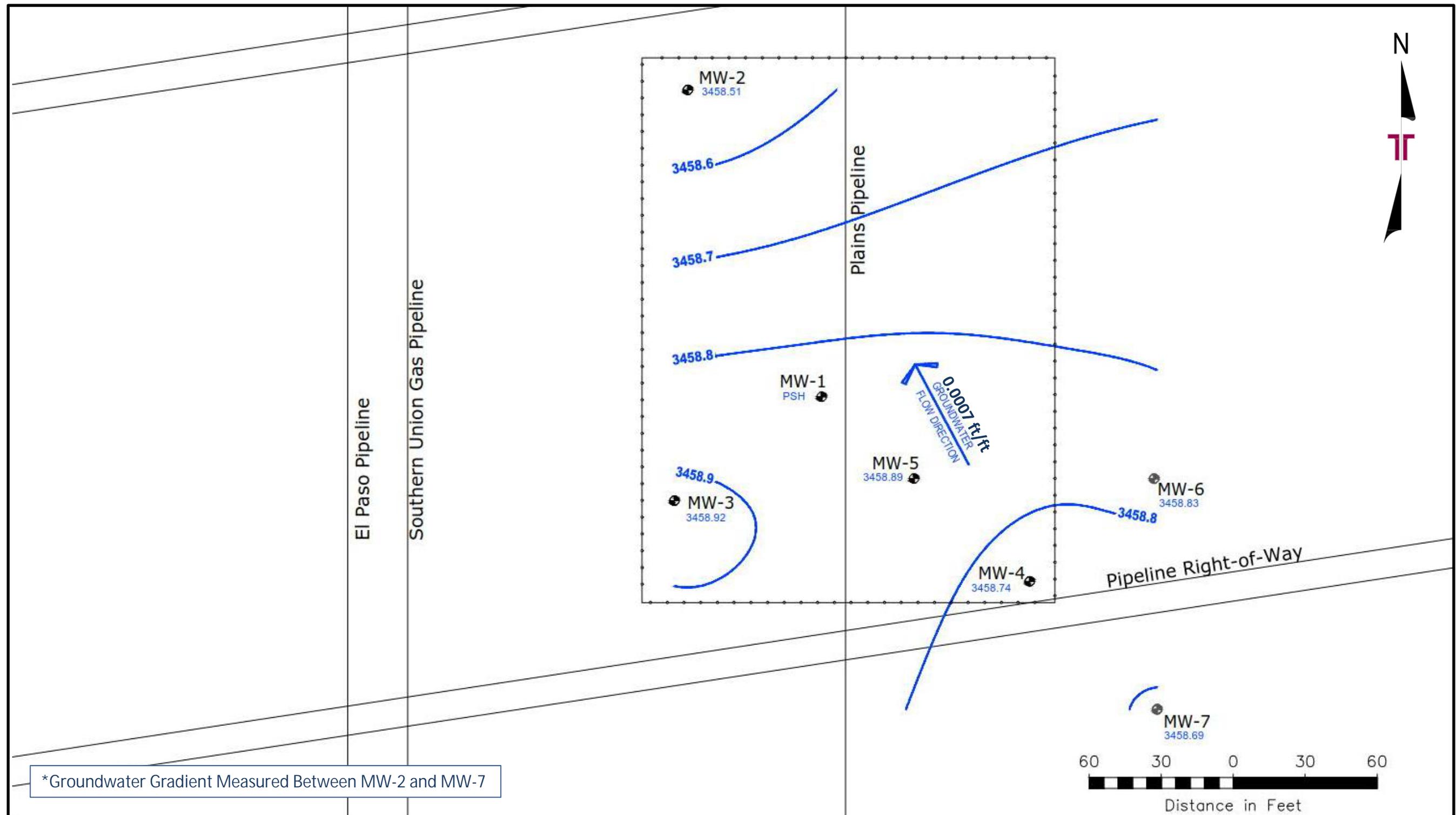
\*Groundwater Gradient Measured Between MW-2 and MW-7

Project No.	AR167321
Scale:	1" = 60'
Source:	Google Earth
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Figure 2c – Groundwater Gradient Map 3Q2016

DCP Plant to Lea Station 6-Inch #2  
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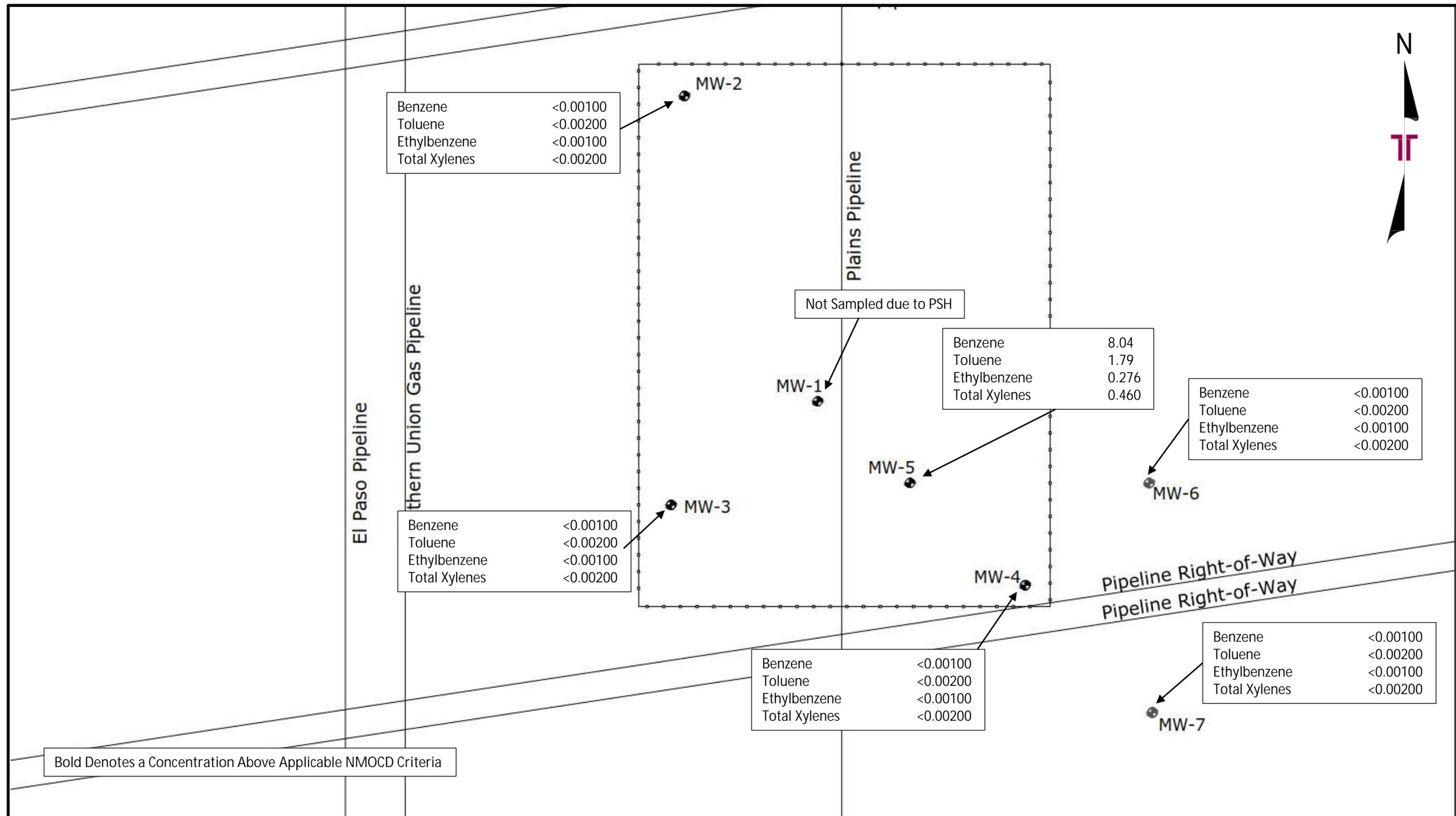


Project No.	AR167321
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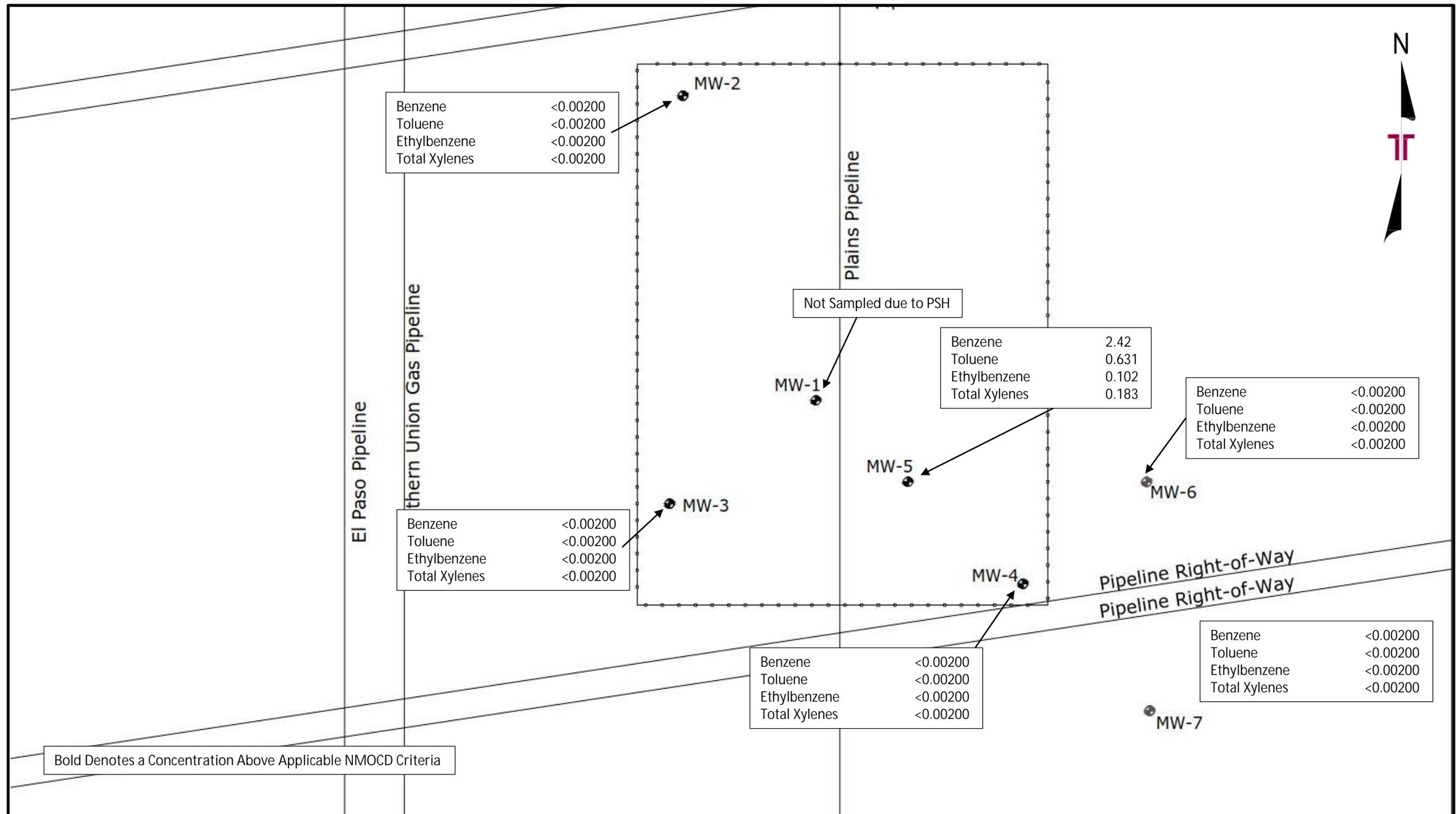
**Terracon**  
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Figure 2d – Groundwater Gradient Map 4Q2016

DCP Plant to Lea Station 6-Inch #2  
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Project No.	AR167321	<p>5827 50<sup>th</sup> St. Suite 1      Lubbock, Texas 79424          PH. (806) 300-0104      FAX. (806) 797 0947</p>	<b>Figure 3a – Groundwater Concentration Map 1Q2016</b> DCP Plant to Lea Station 6-Inch #2 NMOCD Ref. No. 1RP-2136 32.53166° , -103.29111° Lea County, New Mexico
Scale:	1" = 60'		
Source:	Google Earth		
Date:	2014		

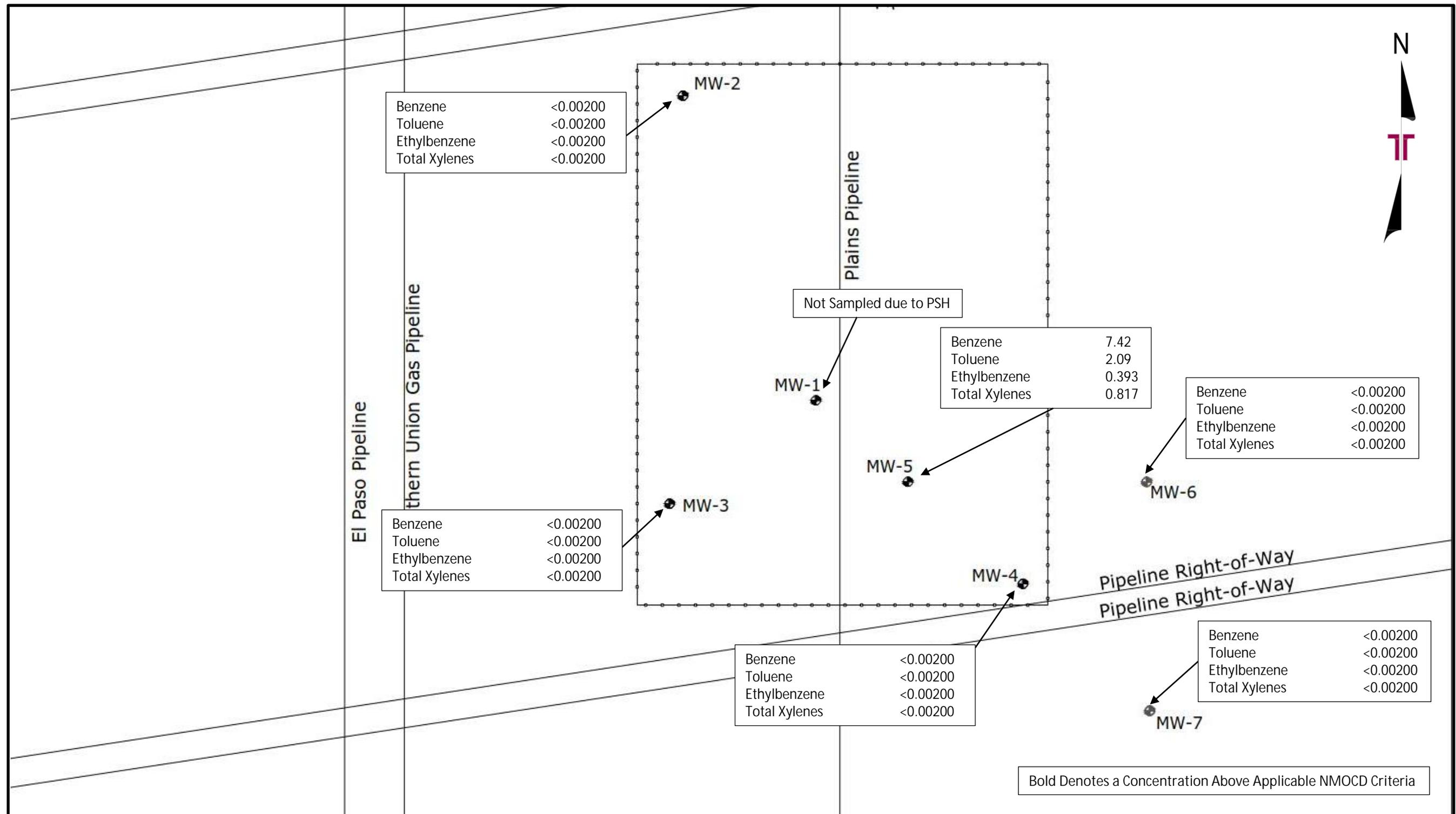


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Figure 3b – Groundwater Concentration Map 2Q2016

DCP Plant to Lea Station 6-Inch #2  
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 32.53166° , -103.29111°  
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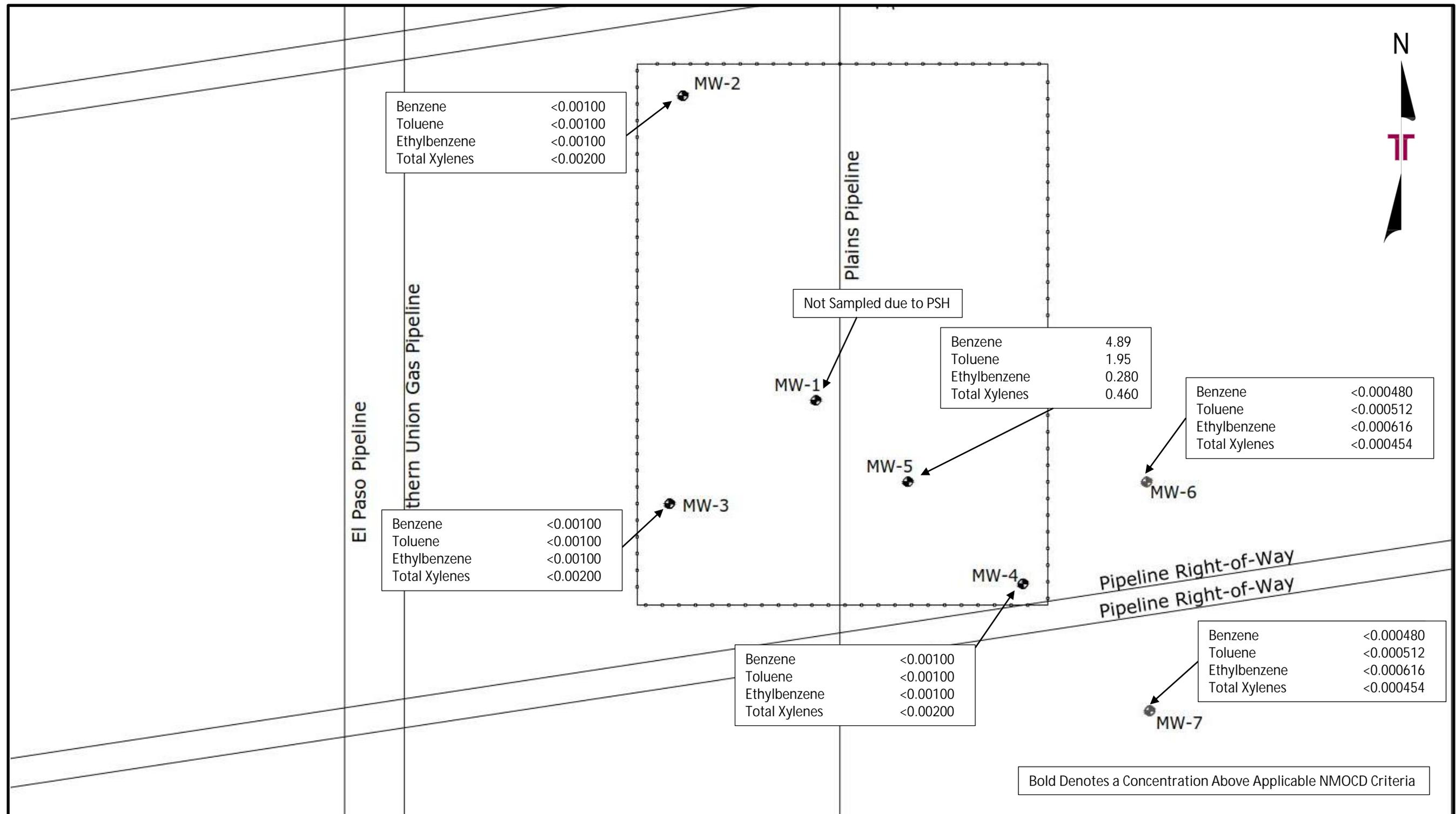


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**Figure 3c – Groundwater Concentration Map 3Q2016**

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Figure 3d – Groundwater Concentration Map 4Q2016

DCP Plant to Lea Station 6-Inch #2  
 NMOCD Ref. No. 1RP-2136  
 32.53166° , -103.29111°  
 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 #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/10/2016	3,540.25	81.10	81.50	0.40	3,459.09
	05/03/2016	3,540.25	80.83	81.10	0.27	3,459.38
	11/01/2016	-	-	-	-	-
	12/22/2016	-	-	-	-	-
MW-2	02/10/2016	3,538.31	-	78.85	-	3,459.46
	05/03/2016	3,538.31	-	78.95	-	3,459.36
	11/01/2016	3,538.31	-	79.20	-	3,459.11
	12/22/2016	3,538.31	-	79.80	-	3,458.51
MW-3	02/10/2016	3,538.94	-	79.80	-	3,459.14
	05/03/2016	3,538.94	-	79.90	-	3,459.04
	11/01/2016	3,538.94	-	79.77	-	3,459.17
	12/22/2016	3,538.94	-	80.02	-	3,458.92
MW-4	02/10/2016	3,539.67	-	80.75	-	3,458.92
	05/03/2016	3,539.67	-	80.80	-	3,458.87
	11/01/2016	3,539.67	-	80.86	-	3,458.81
	12/22/2016	3,539.67	-	80.93	-	3,458.74
MW-5	02/10/2016	3,539.55	-	80.45	-	3,459.10
	05/03/2016	3,539.55	-	80.57	-	3,458.98
	11/01/2016	3,539.55	-	80.64	-	3,458.91
	12/22/2016	3,539.55	-	80.66	-	3,458.89
MW-6	02/10/2016	3,539.22	-	80.20	-	3,459.02
	05/03/2016	3,539.22	-	80.26	-	3,458.96
	11/01/2016	3,539.22	-	80.34	-	3,458.88
	12/22/2016	3,539.22	-	80.39	-	3,458.83
MW-7	02/10/2016	3,538.97	-	80.15	-	3,458.82
	05/03/2016	3,538.97	-	80.22	-	3,458.75
	11/01/2016	3,538.97	-	80.29	-	3,458.68
	12/22/2016	3,538.97	-	80.28	-	3,458.69

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

\* Due to the presence of a Mobile Dual Phase Extraction (MDPE) unit, monitor well MW-1 was not gauged during the 3rd and 4th quarterly sampling events.

**TABLE 2  
2016 ANNUAL REPORT**

**GROUNDWATER ANALYTICAL SUMMARY - BTEX  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b						
		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
	11/01/2016	<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
	11/01/2016	<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-4	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
	11/01/2016	<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	<b>8.04</b>	<b>1.79</b>	0.276	0.289	1.81	0.470	10.6
	05/03/2016	<b>2.42</b>	0.631	0.102	0.120	0.0628	0.183	3.34
	11/01/2016	<b>7.42</b>	<b>2.09</b>	0.393	0.546	0.271	<b>0.817</b>	10.7
	12/22/2016	<b>4.89</b>	<b>1.95</b>	0.280	0.290	0.170	0.460	7.58
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
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
MW-7	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
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
<b>NMOCD CRITERIA</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>TOTAL XYLENES 0.62</b>			

## **APPENDIX C**

Laboratory Data Sheets

# Analytical Report 524835

for

## Plains All American EH&S

**Project Manager: Ben Arguijo**

**DCP Plant to Lea Station 6" #2**

**2009-039**

**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): **524835**  
**DCP Plant to Lea Station 6" #2**  
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) 524835. 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. 524835 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

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# Sample Cross Reference 524835



## Plains All American EH&S, Midland, TX

DCP Plant to Lea Station 6" #2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-2	W	02-10-16 16:00		524835-001
MW-3	W	02-10-16 13:30		524835-002
MW-4	W	02-10-16 14:00		524835-003
MW-5	W	02-10-16 14:30		524835-004
MW-6	W	02-10-16 15:30		524835-005
MW-7	W	02-10-16 15:00		524835-006



## CASE NARRATIVE



*Client Name: Plains All American EH&S*  
*Project Name: DCP Plant to Lea Station 6" #2*

Project ID: 2009-039  
Work Order Number(s): 524835

Report Date: 17-FEB-16  
Date Received: 02/12/2016

---

### **Sample receipt non conformances and comments:**

---

### **Sample receipt non conformances and comments per sample:**

None



# Certificate of Analysis Summary 524835



Plains All American EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: 2009-039  
 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

<i>Analysis Requested</i>	<i>Lab Id:</i>	524835-001	524835-002	524835-003	524835-004	524835-005	524835-006
	<i>Field Id:</i>	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	<i>Depth:</i>						
	<i>Matrix:</i>	GROUND WATER					
	<i>Sampled:</i>	Feb-10-16 16:00	Feb-10-16 13:30	Feb-10-16 14:00	Feb-10-16 14:30	Feb-10-16 15:30	Feb-10-16 15:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Feb-15-16 20:00	Feb-15-16 20:00	Feb-15-16 20:00	Feb-16-16 19:00	Feb-15-16 20:00	Feb-15-16 20:00
	<i>Analyzed:</i>	Feb-16-16 14:55	Feb-16-16 15:12	Feb-16-16 15:30	Feb-16-16 19:44	Feb-16-16 15:48	Feb-16-16 16:11
	<i>Units/RL:</i>	mg/L RL					
Benzene		ND 0.00100	ND 0.00100	ND 0.00100	8.04 0.0250	ND 0.00100	ND 0.00100
Toluene		ND 0.00200	ND 0.00200	ND 0.00200	1.79 0.0500	ND 0.00200	ND 0.00200
Ethylbenzene		ND 0.00100	ND 0.00100	ND 0.00100	0.276 0.0250	ND 0.00100	ND 0.00100
m_p-Xylenes		ND 0.00200	ND 0.00200	ND 0.00200	0.289 0.0500	ND 0.00200	ND 0.00200
o-Xylene		ND 0.00100	ND 0.00100	ND 0.00100	0.181 0.0250	ND 0.00100	ND 0.00100
Xylenes, Total		ND 0.00100	ND 0.00100	ND 0.00100	0.470 0.0250	ND 0.00100	ND 0.00100
Total BTEX		ND 0.00100	ND 0.00100	ND 0.00100	10.6 0.0250	ND 0.00100	ND 0.00100

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

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Kelsey Brooks  
Project Manager

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

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 1211 W Florida Ave, Midland, TX 79701  
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



# Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" #2

Work Orders : 524835,

Project ID: 2009-039

Lab Batch #: 988136

Sample: 524835-001 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 14:55

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 988136

Sample: 524835-002 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 15:12

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 988136

Sample: 524835-003 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 15:30

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 988136

Sample: 524835-005 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 15:48

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 988136

Sample: 524835-006 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 16:11

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	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" #2

Work Orders : 524835,

Project ID: 2009-039

Lab Batch #: 988153

Sample: 524835-004 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 19:44

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 988136

Sample: 705005-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/16/16 00:34

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 988153

Sample: 705027-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/16/16 21:08

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	0.0285	0.0300	95	80-120	

Lab Batch #: 988136

Sample: 705005-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/15/16 23:27

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 988153

Sample: 705027-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/16/16 20:01

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	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" #2

Work Orders : 524835,

Project ID: 2009-039

Lab Batch #: 988136

Sample: 705005-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/15/16 23:44

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 988153

Sample: 705027-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 02/16/16 20:18

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 988136

Sample: 524638-016 S / MS

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 02/16/16 13:29

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0248	0.0300	83	80-120	
4-Bromofluorobenzene	0.0283	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.



# BS / BSD Recoveries



**Project Name: DCP Plant to Lea Station 6" #2**

**Work Order #: 524835**

**Project ID: 2009-039**

**Analyst: PJB**

**Date Prepared: 02/15/2016**

**Date Analyzed: 02/15/2016**

**Lab Batch ID: 988136**

**Sample: 705005-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00100	0.100	0.0874	87	0.100	0.0874	87	0	70-125	25	
Toluene	<0.00200	0.100	0.0817	82	0.100	0.0823	82	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0875	88	0.100	0.0883	88	1	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.177	89	0.200	0.178	89	1	70-131	25	
o-Xylene	<0.00100	0.100	0.0876	88	0.100	0.0886	89	1	71-133	25	

**Analyst: PJB**

**Date Prepared: 02/16/2016**

**Date Analyzed: 02/16/2016**

**Lab Batch ID: 988153**

**Sample: 705027-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00100	0.100	0.0892	89	0.100	0.0886	89	1	70-125	25	
Toluene	<0.00200	0.100	0.0839	84	0.100	0.0825	83	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0881	88	0.100	0.0880	88	0	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.178	89	0.200	0.178	89	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0889	89	0.100	0.0889	89	0	71-133	25	

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

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

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

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS Recoveries

## Project Name: DCP Plant to Lea Station 6" #2



**Work Order #:** 524835

**Lab Batch #:** 988136

**Date Analyzed:** 02/16/2016

**QC- Sample ID:** 524638-016 S

**Reporting Units:** mg/L

**Date Prepared:** 02/15/2016

**Batch #:** 1

**Project ID:** 2009-039

**Analyst:** PJB

**Matrix:** Ground Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
BTEX by EPA 8021B  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	7.37	2.00	10.1	137	70-125	X
Toluene	0.0406	2.00	1.75	85	70-125	
Ethylbenzene	0.614	2.00	2.55	97	71-129	
m_p-Xylenes	0.127	4.00	3.80	92	70-131	
o-Xylene	<0.0200	2.00	1.79	90	71-133	

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



**Client:** Plains All American EH&S

**Date/ Time Received:** 02/12/2016 11:41:00 AM

**Work Order #:** 524835

**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  
 Carley Owens

Date: 02/12/2016

**Checklist reviewed by:** Kelsey Brooks  
 Kelsey Brooks

Date: 02/15/2016

# Analytical Report 529712

## for Plains All American EH&S

**Project Manager: Ben Arguijo**

**DCP Plant to Lea Station 6" #2**

**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): **529712**  
**DCP Plant to Lea Station 6" #2**  
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) 529712. 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. 529712 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

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# Sample Cross Reference 529712



## Plains All American EH&S, Midland, TX

DCP Plant to Lea Station 6" #2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-2	W	05-03-16 11:40		529712-001
MW-3	W	05-03-16 11:20		529712-002
MW-4	W	05-03-16 09:30		529712-003
MW-5	W	05-03-16 10:30		529712-004
MW-6	W	05-03-16 10:50		529712-005
MW-7	W	05-03-16 10:00		529712-006



## CASE NARRATIVE



*Client Name: Plains All American EH&S*  
*Project Name: DCP Plant to Lea Station 6" #2*

Project ID:  
Work Order Number(s): 529712

Report Date: 13-MAY-16  
Date Received: 05/06/2016

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analysis Summary 529712



Plains All American EH&S, Midland, TX

Project Name: DCP Plant to Lea Station 6" #2

**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

<i>Analysis Requested</i>	<i>Lab Id:</i>	529712-001	529712-002	529712-003	529712-004	529712-005	529712-006
	<i>Field Id:</i>	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	<i>Depth:</i>						
	<i>Matrix:</i>	GROUND WATER					
	<i>Sampled:</i>	May-03-16 11:40	May-03-16 11:20	May-03-16 09:30	May-03-16 10:30	May-03-16 10:50	May-03-16 10:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	May-09-16 19:00					
	<i>Analyzed:</i>	May-09-16 22:15	May-09-16 22:31	May-09-16 22:48	May-10-16 11:07	May-09-16 23:04	May-09-16 23:20
	<i>Units/RL:</i>	mg/L RL					
Benzene		ND 0.00200	ND 0.00200	ND 0.00200	2.42 0.0400	ND 0.00200	ND 0.00200
Toluene		ND 0.00200	ND 0.00200	ND 0.00200	0.631 0.0400	ND 0.00200	ND 0.00200
Ethylbenzene		ND 0.00200	ND 0.00200	ND 0.00200	0.102 0.0400	ND 0.00200	ND 0.00200
m_p-Xylenes		ND 0.00200	ND 0.00200	ND 0.00200	0.120 0.0400	ND 0.00200	ND 0.00200
o-Xylene		ND 0.00200	ND 0.00200	ND 0.00200	0.0628 0.0400	ND 0.00200	ND 0.00200
Total Xylenes		ND 0.00200	ND 0.00200	ND 0.00200	0.183 0.0400	ND 0.00200	ND 0.00200
Total BTEX		ND 0.00200	ND 0.00200	ND 0.00200	3.34 0.0400	ND 0.00200	ND 0.00200

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

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Julian Martinez  
Project Manager

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

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	



# Form 2 - Surrogate Recoveries

Project Name: DCP Plant to Lea Station 6" #2

Work Orders : 529712, 529712

Project ID:

Lab Batch #: 994094

Sample: 529712-001 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 05/09/16 22:15

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 994094

Sample: 529712-002 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 05/09/16 22:31

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 994094

Sample: 529712-003 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 05/09/16 22:48

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 994094

Sample: 529712-005 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 05/09/16 23:04

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 994094

Sample: 529712-006 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L

Date Analyzed: 05/09/16 23:20

**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	0.0282	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" #2

Work Orders : 529712, 529712

Project ID:

Lab Batch #: 994094

Sample: 529712-004 / SMP

Batch: 1 Matrix: Ground Water

Units: mg/L Date Analyzed: 05/10/16 11:07

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

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	

\* 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" #2**

**Work Orders :** 529712, 529712

**Project ID:**

**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**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
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" #2

Work Order #: 529712, 529712

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

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
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" #2**

**Work Order # :** 529712

**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**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
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.



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

### CHAIN OF CUSTODY RECORD

Page 1 of 1

LAB W.O #: 529712

Field billable Hrs: \_\_\_\_\_

Need results by: \_\_\_\_\_ Time: \_\_\_\_\_

Company: Basin Environmental Service Technologies, LLC  
 Address: 3100 Plains Hwy.  
 City: Lovington  
 State: NM Zip: 88260  
 Phone: (575)396-2378  
 Fax: (575)396-1429

Project ID: DCP Plant to Lea Station 6" #2  
 SRS #2009-039  
 Invoice To: Carnille Bryant Plains All American

Sampler Name: Abe Redecop  
 Circle One Event: Quarterly Semi-Annual Annual Monthly N/A

PM/Attn: Ben Argujio  
 Email: bargujio@basinenv.com  
 POC: PAA-C. Bryant

Quote #:

TAT Work Days = D  
 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
1	MW-2	5/3/16	11:40	GW			3
2	MW-3	5/3/16	11:20	GW			3
3	MW-4	5/3/16	9:30	GW			3
4	MW-5	5/3/16	10:30	GW			3
5	MW-6	5/3/16	10:50	GW			3
6	MW-7	5/3/16	10:00	GW			3
7							
8							
9							
0							

Example Volatiles by 8260	Cont Type * VC	# Cont	Lab Only
BTEX	VP		
	E.I.		

Matrix Type Codes	Soil/Sediment/Solid	W Wipe	Air	Oil	Tissue	Urine	Blood
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							

Reg. Program / Clean-up Std	STATE for Cents & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C	Lab Use Only	YES NO N/A
TRRP DW NPDES LPST D/Cln Other:	FL TX GA NC SC NJ PA OK	1 NELAC 2 DOD-ELAP 3 CLP AFCEE 4 QAPP	ADAPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 15.1 2 3	Non-Conformances found? Samples intact upon arrival? Received on Vial Ice? Labeled with proper preservatives? Received within holding time? Custody seals intact? VOOs rec'd w/ headspace? Proper containers used? pH verified-acceptable, excl VOCs? Received on time to meet HTS?	
Relinquished by	Affiliation	Date	Received by	Affiliation	Date	Time	
			<i>[Signature]</i>	MS	5/16/16	1330	

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. T. Revision Date: 3/2016  
 C.O.C. Serial # \_\_\_\_\_

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UNITED STATES

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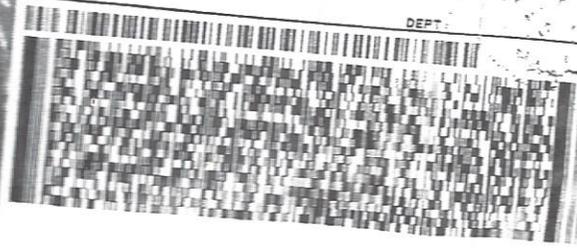
XENCO LABORATORIES  
XENCO LABORATORIES  
1211 W. FLORIDA AVE

ODESSA TX 79701  
(432) 563-1800

INV:  
PO:

REF:

DEPT:

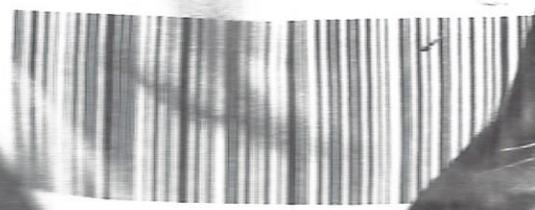


TRK# 6606 3911 5975  
8201

FRI - 06 MAY 3:00P  
STANDARD OVERNIGHT

41 MAFA

77a  
TX-



**Client:** Plains All American EH&S

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

**Work Order #:** 529712

**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 Negrón Date: 05/06/2016  
 Mary Negrón

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

# Analytical Report 539616

for  
Plains All American EH&S

Project Manager: Joel Lowry

DCP Plant Lea Station #2

08-NOV-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)

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Sample Receipt Conformance Report	16



08-NOV-16

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

Reference: XENCO Report No(s): **539616**  
**DCP Plant Lea Station #2**  
Project Address: Lea Co, NM

**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) 539616. 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. 539616 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

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# Sample Cross Reference 539616



## Plains All American EH&S, Midland, TX

DCP Plant Lea Station #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	11-01-16 11:10		539616-001
MW-3	W	11-01-01 13:15		539616-002
MW-4	W	11-01-16 13:22		539616-003
MW-5	W	11-01-16 11:43		539616-004
MW-6	W	11-01-16 11:40		539616-005
MW-7	W	11-01-16 17:07		539616-006



## CASE NARRATIVE



*Client Name: Plains All American EH&S*

*Project Name: DCP Plant Lea Station #2*

Project ID:  
Work Order Number(s): 539616

Report Date: 08-NOV-16  
Date Received: 11/02/2016

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None

## Plains All American EH&S, Midland, TX

DCP Plant Lea Station #2

Sample Id : **MW-5**  
 Lab Sample Id : 539616-004

Matrix : Water  
 Date Collected : 11.01.16 11.43  
 Date Received : 11.02.16 08.49

% Moisture :

Analytical Method : BTEX by EPA 8021  
 Seq Number 3003227

Prep Method: SW5030B  
 Date Prep: 11.02.16 17.00

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	7.42	mg/L	11.03.16 14.48		50
Toluene	108-88-3	2.09	mg/L	11.03.16 14.48		50
Ethylbenzene	100-41-4	0.393	mg/L	11.03.16 14.48		50
m_p-Xylenes	179601-23-1	0.546	mg/L	11.03.16 14.48		50
o-Xylene	95-47-6	0.271	mg/L	11.03.16 14.48		50
Xylenes, Total	1330-20-7	0.817	mg/L	11.03.16 14.48		50
Total BTEX		10.7	mg/L	11.03.16 14.48		50



# Certificate of Analysis Summary 539616

Plains All American EH&S, Midland, TX

Project Name: DCP Plant Lea Station #2



**Project Id:**  
**Contact:** Joel Lowry  
**Project Location:** Lea Co, NM

**Date Received in Lab:** Wed Nov-02-16 08:49 am  
**Report Date:** 08-NOV-16  
**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	539616-001	539616-002	539616-003	539616-004	539616-005	539616-006
	<i>Field Id:</i>	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER	WATER	WATER	WATER	WATER
	<i>Sampled:</i>	Nov-01-16 11:10	Nov-01-01 13:15	Nov-01-16 13:22	Nov-01-16 11:43	Nov-01-16 11:40	Nov-01-16 17:07
<b>BTEX by EPA 8021</b>	<i>Extracted:</i>	Nov-02-16 17:00					
	<i>Analyzed:</i>	Nov-02-16 17:26	Nov-02-16 17:42	Nov-02-16 17:58	Nov-03-16 14:48	Nov-02-16 18:14	Nov-02-16 18:30
	<i>Units/RL:</i>	mg/L RL					
Benzene		ND 0.00200	ND 0.00200	ND 0.00200	7.42 0.100	ND 0.00200	ND 0.00200
Toluene		ND 0.00200	ND 0.00200	ND 0.00200	2.09 0.100	ND 0.00200	ND 0.00200
Ethylbenzene		ND 0.00200	ND 0.00200	ND 0.00200	0.393 0.100	ND 0.00200	ND 0.00200
m_p-Xylenes		ND 0.00200	ND 0.00200	ND 0.00200	0.546 0.100	ND 0.00200	ND 0.00200
o-Xylene		ND 0.00200	ND 0.00200	ND 0.00200	0.271 0.100	ND 0.00200	ND 0.00200
Xylenes, Total		ND 0.00200	ND 0.00200	ND 0.00200	0.817 0.100	ND 0.00200	ND 0.00200
Total BTEX		ND 0.00200	ND 0.00200	ND 0.00200	10.7 0.100	ND 0.00200	ND 0.00200

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

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Kelsey Brooks  
Project Manager

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

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



# Form 2 - Surrogate Recoveries

Project Name: DCP Plant Lea Station #2

Work Orders : 539616,

Lab Batch #: 3003227

Sample: 539616-001 / SMP

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 17:26

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 3003227

Sample: 539616-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 17:42

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 3003227

Sample: 539616-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 17:58

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3003227

Sample: 539616-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 18:14

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3003227

Sample: 539616-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 18:30

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	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 Lea Station #2

Work Orders : 539616,

Lab Batch #: 3003227

Sample: 539616-004 / SMP

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/16 14:48

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 3003227

Sample: 715687-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 17:10

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 3003227

Sample: 715687-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 15:48

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 3003227

Sample: 715687-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 16:04

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 3003227

Sample: 539616-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 16:20

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	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 Lea Station #2

Work Orders : 539616,

Lab Batch #: 3003227

Sample: 539616-001 SD / MSD

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/02/16 16:37

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0306	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 Lea Station #2**

**Work Order #: 539616**

**Project ID:**

**Analyst: PJB**

**Date Prepared: 11/02/2016**

**Date Analyzed: 11/02/2016**

**Lab Batch ID: 3003227**

**Sample: 715687-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00200	0.100	0.0949	95	0.100	0.0941	94	1	70-125	25	
Toluene	<0.00200	0.100	0.0956	96	0.100	0.0943	94	1	70-125	25	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.100	0.0969	97	2	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.204	102	0.200	0.199	100	2	70-131	25	
o-Xylene	<0.00200	0.100	0.101	101	0.100	0.0980	98	3	71-133	25	

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

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

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

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



**Project Name: DCP Plant Lea Station #2**

**Work Order # :** 539616

**Project ID:**

**Lab Batch ID:** 3003227

**QC- Sample ID:** 539616-001 S

**Batch #:** 1 **Matrix:** Water

**Date Analyzed:** 11/02/2016

**Date Prepared:** 11/02/2016

**Analyst:** PJB

**Reporting Units:** mg/L

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	<0.00200	0.100	0.0943	94	0.100	0.0905	91	4	70-125	25	
Toluene	<0.00200	0.100	0.0959	96	0.100	0.0906	91	6	70-125	25	
Ethylbenzene	<0.00200	0.100	0.0982	98	0.100	0.0946	95	4	71-129	25	
m_p-Xylenes	<0.00200	0.200	0.202	101	0.200	0.195	98	4	70-131	25	
o-Xylene	<0.00200	0.100	0.100	100	0.100	0.0970	97	3	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.



# XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: Plains All American EH&S

Date/ Time Received: 11/02/2016 08:49:00 AM

Work Order #: 539616

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)?	5.6
#2 *Shipping container in good condition?	Yes
#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:   
Julian Martinez

Date: 11/02/2016

Checklist reviewed by:   
Kelsey Brooks

Date: 11/02/2016



Setting the Standard since 1990  
 Stafford, Texas (281-240-4200)  
 Dallas Texas (214-902-0300)

# CHAIN OF CUSTODY

Page 1 of 1

San Antonio, Texas (210-509-3334)  
 Midland, Texas (432-704-5251)

WWW.XENCO.COM

Phoenix, Arizona (480-555-0900)

Xenco Quote #

Xenco Job #

539616

Matrix Codes

- W = Water
- S = Soil/Sed/Solid
- GW = Ground Water
- DW = Drinking Water
- P = Product
- SW = Surface water
- SL = Sludge
- OW = Ocean/Sea Water
- WI = Wipe
- O = Oil
- WW = Waste Water
- A = Air

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes									
Company Name / Branch: Terracon Consulting-Lubbock		Project Name/Number: DCP Plant Lea Station #2													
Company Address: 5827 50th st, Suite 1 Lubbock TX 79424		Project Location: Lea Co, NW													
Email: joel.lowy@terracon.com Phone No:		Invoice To: Plains													
Project Contact: Joel Lowry		PO Number: SRS 2009-039													
Sampler's Name		Collection		BTEX 8021B											
No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCI	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	MMW-2		11/11/16	11:00		3	X								
2	MMW-3			1:15		3									
3	MMW-4			1:22		3									
4	MMW-5			1:43		3									
5	MMW-6			1:40		3									
6	MMW-7			12:07		3									
7															
8															
9															
10															
Turnaround Time (Business days)		Data Deliverable Information		Notes:											
<input type="checkbox"/> Same Day TAT		<input type="checkbox"/> 5 Day TAT		<input type="checkbox"/> Level II Std QC		<input type="checkbox"/> Level IV (Full Data Pkg /raw data)									
<input type="checkbox"/> Next Day EMERGENCY		<input type="checkbox"/> 7 Day TAT		<input type="checkbox"/> Level III Std QC+ Forms		<input type="checkbox"/> TRRP Level IV									
<input type="checkbox"/> 2 Day EMERGENCY		<input checked="" type="checkbox"/> Contract TAT		<input type="checkbox"/> Level 3 (CLP Forms)		<input type="checkbox"/> UST / RG-411									
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> TRRP Checklist											
TAT Starts Day received by Lab, if received by 5:00 pm		SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY													
Relinquished by Sampler:		Date Time:		Received By:		Date Time:		Relinquished By:		Date Time:		Received By:			
Relinquished by: <i>Joel Lowry</i>		11/2/16 8:49		Joel Lowry				Relinquished By:				Date Time:			
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**Client:** Plains All American EH&S

**Date/ Time Received:** 11/02/2016 08:49:00 AM

**Work Order #:** 539616

**Acceptable Temperature Range:** 0 - 6 degC  
**Air and Metal samples Acceptable Range:** Ambient  
**Temperature Measuring device used :** R8

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

Analyst:

PH Device/Lot#:

**Checklist completed by:**  Date: 11/02/2016  
Julian Martinez

**Checklist reviewed by:**  Date: 11/02/2016  
Kelsey Brooks

# Certificate of Analysis Summary 542898

Terracon Lubbock, Lubbock, TX

Project Name: DCP Plant to Lea Station 6" #2

Project Id: AR167321  
 Contact: Joel Lowry  
 Project Location:

Date Received in Lab: Thu Dec-22-16 04:15 pm  
 Report Date: 05-JAN-17  
 Project Manager: Liz Givens

<i>Analysis Requested</i>	<i>Lab Id:</i>	542898-001	542898-002	542898-003	542898-004	542898-005	542898-006						
	<i>Field Id:</i>	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7						
		<i>Depth:</i>											
		<i>Matrix:</i>	WATER		WATER		WATER						
		<i>Sampled:</i>	Dec-22-16 11:30	Dec-22-16 11:03	Dec-22-16 11:35	Dec-22-16 12:46	Dec-22-16 12:30	Dec-22-16 11:12					
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Dec-27-16 16:00		Dec-27-16 16:00		Dec-27-16 16:00		Jan-03-17 14:00		Jan-03-17 14:00		Jan-03-17 14:00	
	<i>Analyzed:</i>	Dec-27-16 19:11		Dec-27-16 21:00		Dec-27-16 21:27		Jan-03-17 18:31		Jan-03-17 20:18		Jan-03-17 20:46	
	<i>Units/RL:</i>	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	4.89	0.0500	<0.000480	0.00100	<0.000480	0.00100
Toluene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	1.95	0.0500	<0.000512	0.00100	<0.000512	0.00100
Ethylbenzene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	0.280	0.0500	<0.000616	0.00100	<0.000616	0.00100
m,p-Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.290	0.100	<0.000454	0.00200	<0.000454	0.00200
o-Xylene		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	0.170	0.0500	<0.000270	0.00100	<0.000270	0.00100
Total Xylenes		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	0.460	0.0500	<0.000270	0.00100	<0.000270	0.00100
Total BTEX		<0.00100	0.00100	<0.00100	0.00100	<0.00100	0.00100	7.58	0.0500	<0.000270	0.00100	<0.000270	0.00100

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

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



Liz Givens  
Project Manager

# Analytical Report 542898

for  
Terracon Lubbock

Project Manager: Joel Lowry

DCP Plant to Lea Station 6" #2

AR167321

05-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)

05-JAN-17

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

Reference: XENCO Report No(s): **542898**  
**DCP Plant to Lea Station 6" #2**  
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) 542898. 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. 542898 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

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*Certified and approved by numerous States and Agencies.*

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

## Sample Cross Reference 542898

### Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
MW-2	W	12-22-16 11:30		542898-001
MW-3	W	12-22-16 11:03		542898-002
MW-4	W	12-22-16 11:35		542898-003
MW-5	W	12-22-16 12:46		542898-004
MW-6	W	12-22-16 12:30		542898-005
MW-7	W	12-22-16 11:12		542898-006

**Client Name: Terracon Lubbock**

**Project Name: DCP Plant to Lea Station 6" #2**

Project ID: AR167321  
Work Order Number(s): 542898

Report Date: 05-JAN-17  
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 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-2**  
 Lab Sample Id: 542898-001

Matrix: Water  
 Date Collected: 12.22.16 11.30

Date Received: 12.22.16 16.15

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	12.27.16 19.11	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.27.16 19.11	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.27.16 19.11	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.27.16 19.11	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.27.16 19.11	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.27.16 19.11	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.27.16 19.11	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
a,a,a-Trifluorotoluene	98-08-8	98	%	66-120	12.27.16 19.11		
4-Bromofluorobenzene	460-00-4	113	%	67-120	12.27.16 19.11		

# Certificate of Analytical Results 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-3**  
 Lab Sample Id: 542898-002

Matrix: Water  
 Date Collected: 12.22.16 11.03

Date Received: 12.22.16 16.15

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	12.27.16 21.00	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.27.16 21.00	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.27.16 21.00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.27.16 21.00	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.27.16 21.00	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.27.16 21.00	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.27.16 21.00	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
a,a,a-Trifluorotoluene	98-08-8	97	%	66-120	12.27.16 21.00		
4-Bromofluorobenzene	460-00-4	112	%	67-120	12.27.16 21.00		

# Certificate of Analytical Results 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-4**  
 Lab Sample Id: 542898-003

Matrix: Water  
 Date Collected: 12.22.16 11.35

Date Received: 12.22.16 16.15

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	12.27.16 21.27	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/L	12.27.16 21.27	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/L	12.27.16 21.27	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	12.27.16 21.27	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/L	12.27.16 21.27	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/L	12.27.16 21.27	U	1
Total BTEX		<0.00100	0.00100	mg/L	12.27.16 21.27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
a,a,a-Trifluorotoluene	98-08-8	98	%	66-120	12.27.16 21.27		
4-Bromofluorobenzene	460-00-4	114	%	67-120	12.27.16 21.27		

# Certificate of Analytical Results 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-5**  
 Lab Sample Id: 542898-004

Matrix: Water  
 Date Collected: 12.22.16 12.46

Date Received: 12.22.16 16.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 01.03.17 14.00

Seq Number: 3006881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>4.89</b>	0.0500	mg/L	01.03.17 18.31		50
<b>Toluene</b>	108-88-3	<b>1.95</b>	0.0500	mg/L	01.03.17 18.31		50
<b>Ethylbenzene</b>	100-41-4	<b>0.280</b>	0.0500	mg/L	01.03.17 18.31		50
<b>m,p-Xylenes</b>	179601-23-1	<b>0.290</b>	0.100	mg/L	01.03.17 18.31		50
<b>o-Xylene</b>	95-47-6	<b>0.170</b>	0.0500	mg/L	01.03.17 18.31		50
<b>Total Xylenes</b>	1330-20-7	<b>0.460</b>	0.0500	mg/L	01.03.17 18.31		50
<b>Total BTEX</b>		<b>7.58</b>	0.0500	mg/L	01.03.17 18.31		50
<b>Surrogate</b>	<b>Cas Number</b>		<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
a,a,a-Trifluorotoluene	98-08-8		98	%	66-120	01.03.17 18.31	
4-Bromofluorobenzene	460-00-4		98	%	67-120	01.03.17 18.31	

# Certificate of Analytical Results 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-6**  
 Lab Sample Id: 542898-005

Matrix: Water  
 Date Collected: 12.22.16 12.30

Date Received: 12.22.16 16.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 01.03.17 14.00

Seq Number: 3006881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000480	0.00100	mg/L	01.03.17 20.18	U	1
Toluene	108-88-3	<0.000512	0.00100	mg/L	01.03.17 20.18	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	mg/L	01.03.17 20.18	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	mg/L	01.03.17 20.18	U	1
o-Xylene	95-47-6	<0.000270	0.00100	mg/L	01.03.17 20.18	U	1
Total Xylenes	1330-20-7	<0.000270	0.00100	mg/L	01.03.17 20.18	U	1
Total BTEX		<0.000270	0.00100	mg/L	01.03.17 20.18	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
a,a,a-Trifluorotoluene	98-08-8	98	%	66-120	01.03.17 20.18		
4-Bromofluorobenzene	460-00-4	98	%	67-120	01.03.17 20.18		

# Certificate of Analytical Results 542898

## Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" #2

Sample Id: **MW-7**  
 Lab Sample Id: 542898-006

Matrix: Water  
 Date Collected: 12.22.16 11.12

Date Received: 12.22.16 16.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 01.03.17 14.00

Seq Number: 3006881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000480	0.00100	mg/L	01.03.17 20.46	U	1
Toluene	108-88-3	<0.000512	0.00100	mg/L	01.03.17 20.46	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	mg/L	01.03.17 20.46	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	mg/L	01.03.17 20.46	U	1
o-Xylene	95-47-6	<0.000270	0.00100	mg/L	01.03.17 20.46	U	1
Total Xylenes	1330-20-7	<0.000270	0.00100	mg/L	01.03.17 20.46	U	1
Total BTEX		<0.000270	0.00100	mg/L	01.03.17 20.46	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
a,a,a-Trifluorotoluene	98-08-8	99	%	66-120	01.03.17 20.46		
4-Bromofluorobenzene	460-00-4	103	%	67-120	01.03.17 20.46		

# Flagging Criteria

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

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

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

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

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	

**Terracon Lubbock**  
DCP Plant to Lea Station 6" #2

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

Seq Number: 3006800

MB Sample Id: 717866-1-BLK

Matrix: Water

LCS Sample Id: 717866-1-BKS

Prep Method: SW5030B

Date Prep: 12.27.16

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**

Seq Number: 3006881

MB Sample Id: 718037-1-BLK

Matrix: Water

LCS Sample Id: 718037-1-BKS

Prep Method: SW5030B

Date Prep: 01.03.17

LCSD Sample Id: 718037-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000480	0.100	0.100	100	0.0977	98	15-147	2	20	mg/L	01.03.17 16:43	
Toluene	0.000800	0.100	0.103	103	0.100	100	11-147	3	20	mg/L	01.03.17 16:43	
Ethylbenzene	<0.000616	0.100	0.103	103	0.0995	100	10-149	3	20	mg/L	01.03.17 16:43	
m,p-Xylenes	<0.000454	0.200	0.206	103	0.200	100	62-124	3	25	mg/L	01.03.17 16:43	
o-Xylene	<0.000270	0.100	0.104	104	0.101	101	62-124	3	25	mg/L	01.03.17 16:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	99		101		100		66-120	%	01.03.17 16:43
4-Bromofluorobenzene	97		103		102		67-120	%	01.03.17 16:43

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

Seq Number: 3006800

Parent Sample Id: 542898-001

Matrix: Water

MS Sample Id: 542898-001 S

Prep Method: SW5030B

Date Prep: 12.27.16

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

**Terracon Lubbock**  
DCP Plant to Lea Station 6" #2

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

Seq Number: 3006881

Parent Sample Id: 542898-004

Matrix: Water

MS Sample Id: 542898-004 S

Prep Method: SW5030B

Date Prep: 01.03.17

MSD Sample Id: 542898-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	4.89	5.00	9.70	96	9.76	97	15-147	1	20	mg/L	01.03.17 18:58	
Toluene	1.95	5.00	6.87	98	6.92	99	11-147	1	20	mg/L	01.03.17 18:58	
Ethylbenzene	0.280	5.00	5.24	99	5.17	98	10-149	1	20	mg/L	01.03.17 18:58	
m,p-Xylenes	0.290	10.0	10.3	100	10.1	98	62-124	2	25	mg/L	01.03.17 18:58	
o-Xylene	0.170	5.00	5.18	100	5.09	98	62-124	2	25	mg/L	01.03.17 18:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	99		99		66-120	%	01.03.17 18:58
4-Bromofluorobenzene	100		100		67-120	%	01.03.17 18:58

54288-001  
 12/22/16  
 bu



Laboratory: Xenco Laboratories  
 Address: 1211 W. Florida Ave.  
 Midland, TX 79701  
 432-563-1800

Office Location: Lubbock  
 Project Manager: Joel Lowry  
 Sampler's Name: Joel Lowry  
 Phone: \_\_\_\_\_  
 Contact: Joel Lowry  
 PO/SO #: SRS No. 2009-039  
 Sampler's Signature: \_\_\_\_\_

CHAIN OF CUSTODY RECORD

LAB USE ONLY  
 DUE DATE: \_\_\_\_\_  
 TEMP OF COOLER WHEN RECEIVED (°C): \_\_\_\_\_  
 Page 1 of 1

ANALYSIS REQUESTED  
 VOCs (EPA Method 8021B) *BTEX*

Matrix	Date	Time	Comp	Grab	Project Name	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers		Lab Sample ID
									40 ml	VOA	
GW	12/22/2016	11:30		x	DCP Plant to Lea Station 6" #2	54288-001 MW-2			3		433930
GW	12/22/2016	11:03		x		002 MW-3			3		937
GW	12/22/2016	11:35		x		003 MW-4			3		938
GW	12/22/2016	12:46		x		004 MW-5			3		939
GW	12/22/2016	12:30		x		005 MW-6			3		940
GW	12/22/2016	11:12		x		006 MW-7			3		PFT

TURNAROUND TIME  
 Normal  
 48-Hour Rush  
 24-Hour Rush

Relinquished by (Signature): *Paul Green*  
 Date: 12/22/16 Time: 4:15  
 Relinquished by (Signature): \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by (Signature): \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by (Signature): \_\_\_\_\_  
 Date: 12/22/16 Time: 4:15

TRRP Laboratory Review Checklist  
 Received by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_  
 Received by (Signature): *Donda Ward* Date: 12/22/16 Time: 4:15 PM

NOTES: Please Email Results to  
 erin.loyd@terracon.com  
 joel.lowry@terracon.com  
 cibryant@paapl.com

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

Lubbock Office ■ 5827 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140  
 Responsive ■ Resourceful ■ Reliable

## **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 #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	7/1/2009	3,540.25	63.95	69.31	5.36	3,475.50
	12/10/2009	3,540.25	79.24	83.90	4.66	3,460.31
	3/11/2010	3,540.25	79.28	84.07	4.79	3,460.25
	5/27/2010	3,540.25	79.23	83.88	4.65	3,460.32
	8/26/2010	3,540.25	79.42	83.84	4.43	3,460.18
	10/29/2010	3,540.25	79.68	83.33	3.65	3,460.02
	3/24/2011	3,540.25	79.50	83.87	4.37	3,460.09
	5/26/2011	3,540.25	79.55	83.96	4.41	3,460.04
	8/17/2011	3,540.25	79.60	83.85	4.25	3,460.01
	11/29/2011	3,540.25	79.70	83.65	3.95	3,459.96
	2/3/2012	3,540.25	79.80	83.80	4.00	3,459.85
	5/1/2012	3,540.25	79.72	84.00	4.28	3,459.89
	9/6/2012	3,540.25	79.75	83.90	4.15	3,459.88
	11/9/2012	3,540.25	79.97	83.36	3.39	3,459.77
	2/13/2013	3,540.25	*	*	*	*
	5/8/2013	3,540.25	79.92	83.46	3.54	3,459.80
	8/5/2013	3,540.25	80.01	83.63	3.62	3,459.70
	9/25/2013	3,540.25	80.02	83.62	3.60	3,459.69
	11/13/2013	3,540.25	80.02	83.62	3.60	3,459.69
	2/14/2014	3,540.25	*	*	*	*
	5/8/2014	3,540.25	80.06	83.73	3.67	3,459.64
	8/5/2014	3,540.25	*	*	*	*
	11/7/2014	3,540.25	80.75	81.72	0.97	3,459.35
	2/19/2015	3,540.25	*	*	*	*
	5/7/2015	3,540.25	*	*	*	*
	8/5/2015	3,540.25	*	*	*	*
12/9/2015	3,540.25	*	*	*	*	
2/8/2016	3,540.25	81.10	81.50	0.40	3,459.09	
5/3/2016	3,540.25	80.83	81.10	0.27	3,459.38	
11/1/2016	3,540.25	*	*	*	*	
12/22/2016	3,540.25	*	*	*	*	
MW-2	7/1/2009	3,538.31	-	78.28	-	3,460.03
	12/10/2009	3,538.31	-	78.37	-	3,459.94
	3/11/2010	3,538.31	-	78.36	-	3,459.95
	5/27/2010	3,538.31	-	78.36	-	3,459.95
	8/26/2010	3,538.31	-	78.40	-	3,459.91
	10/29/2010	3,538.31	-	78.45	-	3,459.86
	3/24/2011	3,538.31	-	78.53	-	3,459.78
	5/26/2011	3,538.31	-	78.47	-	3,459.84
8/17/2011	3,538.31	-	78.70	-	3,459.61	

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**HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-2	11/29/2011	3,538.31	-	78.70	-	3,459.61
	2/3/2012	3,538.31	-	78.70	-	3,459.61
	5/1/2012	3,538.31	-	78.60	-	3,459.71
	8/29/2012	3,538.31	-	78.68	-	3,459.63
	11/9/2012	3,538.31	-	78.68	-	3,459.63
	2/13/2013	3,538.31	-	78.69	-	3,459.62
	5/8/2013	3,538.31	-	78.71	-	3,459.60
	8/5/2013	3,538.31	-	78.65	-	3,459.66
	9/25/2013	3,538.31	-	78.68	-	3,459.63
	11/13/2013	3,538.31	-	78.68	-	3,459.63
	2/14/2014	3,538.31	-	78.77	-	3,459.54
	5/8/2014	3,538.31	-	78.76	-	3,459.55
	8/5/2014	3,538.31	-	78.95	-	3,459.36
	11/7/2014	3,538.31	-	78.87	-	3,459.44
	2/19/2015	3,538.31	-	78.84	-	3,459.47
	5/7/2015	3,538.31	-	78.90	-	3,459.41
	8/5/2015	3,538.31	-	79.00	-	3,459.31
	12/9/2015	3,538.31	-	78.90	-	3,459.41
	2/10/2016	3,538.31	-	78.85	-	3,459.46
5/3/2016	3,538.31	-	78.95	-	3,459.36	
11/1/2016	3,538.31	-	79.20	-	3,459.11	
12/22/2016	3,538.31	-	79.80	-	3,458.51	
MW-3	7/1/2009	3,539.03	-	79.17	-	3,459.86
	12/10/2009	3,539.03	-	79.24	-	3,459.79
	3/11/2010	3,539.03	-	79.24	-	3,459.79
	5/27/2010	3,539.03	-	79.26	-	3,459.77
	8/26/2010	3,539.03	-	79.35	-	3,459.68
	10/29/2010	3,539.03	-	79.38	-	3,459.65
	3/24/2011	3,539.03	-	79.43	-	3,459.60
	5/26/2011	3,539.03	-	79.41	-	3,459.62
	8/17/2011	3,539.03	-	79.60	-	3,459.43
	11/29/2011	3,539.03	-	79.70	-	3,459.33
	2/3/2012	3,539.03	-	79.58	-	3,459.45
	5/1/2012	3,539.03	-	79.48	-	3,459.55
	8/29/2012	3,539.03	-	79.60	-	3,459.43
	11/9/2012	3,539.03	-	79.69	-	3,459.34
	2/13/2013	3,538.94	-	79.67	-	3,459.27
	5/8/2013	3,538.94	-	79.68	-	3,459.26
8/5/2013	3,538.94	-	79.56	-	3,459.38	
9/25/2013	3,538.94	-	79.64	-	3,459.30	

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**HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	11/13/2013	3,538.94	-	79.58	-	3,459.36
	2/14/2014	3,538.94	-	79.76	-	3,459.18
	5/8/2014	3,538.94	-	79.74	-	3,459.20
	8/5/2014	3,538.94	-	79.92	-	3,459.02
	11/7/2014	3,538.94	-	79.84	-	3,459.10
	2/19/2015	3,538.94	-	79.80	-	3,459.14
	5/7/2015	3,538.94	-	79.50	-	3,459.44
	8/5/2015	3,538.94	-	79.83	-	3,459.11
	12/9/2015	3,538.94	-	79.83	-	3,459.11
	2/10/2016	3,538.94	-	79.80	-	3,459.14
	5/3/2016	3,538.94	-	79.90	-	3,459.04
11/1/2016	3,538.94	-	79.77	-	3,459.17	
12/22/2016	3,538.94	-	80.02	-	3,458.92	
MW-4	7/1/2009	3,539.66	-	80.07	-	3,459.59
	12/10/2009	3,539.66	-	80.14	-	3,459.52
	3/11/2010	3,539.66	-	80.15	-	3,459.51
	5/27/2010	3,539.66	-	80.17	-	3,459.49
	8/26/2010	3,539.66	-	80.30	-	3,459.36
	10/29/2010	3,539.66	-	80.26	-	3,459.40
	3/24/2011	3,539.66	-	80.36	-	3,459.30
	5/26/2011	3,539.66	-	80.31	-	3,459.35
	8/17/2011	3,539.66	-	80.55	-	3,459.11
	11/29/2011	3,539.66	-	80.55	-	3,459.11
	2/3/2012	3,539.66	-	80.55	-	3,459.11
	5/1/2012	3,539.66	-	80.40	-	3,459.26
	8/29/2012	3,539.66	-	80.55	-	3,459.11
	11/9/2012	3,539.66	-	80.51	-	3,459.15
	2/13/2013	3,539.67	-	80.51	-	3,459.16
	5/8/2013	3,539.67	-	80.51	-	3,459.16
	8/5/2013	3,539.67	-	80.49	-	3,459.18
	9/25/2013	3,539.67	-	80.50	-	3,459.17
	11/13/2013	3,539.67	-	80.50	-	3,459.17
	2/14/2014	3,539.67	-	80.61	-	3,459.06
	5/8/2014	3,539.67	-	80.64	-	3,459.03
	8/5/2014	3,539.67	-	80.81	-	3,458.86
	11/7/2014	3,539.67	-	80.78	-	3,458.89
2/19/2015	3,539.67	-	80.71	-	3,458.96	
5/7/2015	3,539.67	-	82.70	-	3,456.97	
8/5/2015	3,539.67	-	80.86	-	3,458.81	
12/9/2015	3,539.67	-	80.77	-	3,458.90	

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**HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-4	2/10/2016	3,539.67	-	80.75	-	3,458.92
	5/3/2016	3,539.67	-	80.80	-	3,458.87
	11/1/2016	3,539.67	-	80.86	-	3,458.81
	12/22/2016	3,539.67	-	80.93	-	3,458.74
MW-5	2/3/2012	3,539.55	-	80.30	-	3,459.25
	5/1/2012	3,539.55	-	80.15	-	3,459.40
	8/29/2012	3,539.55	-	80.79	-	3,458.76
	11/9/2012	3,539.55	-	80.27	-	3,459.28
	2/13/2013	3,539.55	-	80.28	-	3,459.27
	5/8/2013	3,539.55	-	80.28	-	3,459.27
	8/5/2013	3,539.55	-	80.26	-	3,459.29
	9/25/2013	3,539.55	-	80.27	-	3,459.28
	11/13/2013	3,539.55	-	80.29	-	3,459.26
	2/14/2014	3,539.55	-	80.41	-	3,459.14
	5/8/2014	3,539.55	-	80.38	-	3,459.17
	8/5/2014	3,539.55	-	80.60	-	3,458.95
	11/7/2014	3,539.55	-	80.51	-	3,459.04
	2/19/2015	3,539.55	-	80.44	-	3,459.11
	5/7/2015	3,539.55	-	85.00	-	3,454.55
	8/5/2015	3,539.55	-	80.69	-	3,458.86
	12/9/2015	3,539.55	-	80.44	-	3,459.11
2/10/2016	3,539.55	-	80.45	-	3,459.10	
5/3/2016	3,539.55	-	80.57	-	3,458.98	
11/1/2016	3,539.55	-	80.64	-	3,458.91	
12/22/2016	3,539.55	-	80.66	-	3,458.89	
MW-6	9/25/2013	3,539.22	-	80.10	-	3,459.12
	11/13/2013	3,539.22	-	80.10	-	3,459.12
	2/14/2014	3,539.22	-	80.08	-	3,459.14
	5/8/2014	3,539.22	-	80.07	-	3,459.15
	8/5/2014	3,539.22	-	80.26	-	3,458.96
	11/7/2014	3,539.22	-	80.16	-	3,459.06
	2/19/2015	3,539.22	-	80.18	-	3,459.04
	5/7/2015	3,539.22	-	80.40	-	3,458.82
	8/5/2015	3,539.22	-	80.31	-	3,458.91
	12/9/2015	3,539.22	-	80.20	-	3,459.02
	2/10/2016	3,539.22	-	80.20	-	3,459.02
	5/3/2016	3,539.22	-	80.26	-	3,458.96
	11/1/2016	3,539.22	-	80.34	-	3,458.88
12/22/2016	3,539.22	-	80.39	-	3,458.83	

**TABLE 3  
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**HISTORIC QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-7	9/25/2013	3,538.97	-	79.98	-	3,458.99
	11/13/2013	3,538.97	-	79.98	-	3,458.99
	2/14/2014	3,538.97	-	80.03	-	3,458.94
	5/8/2014	3,538.97	-	80.04	-	3,458.93
	8/5/2014	3,538.97	-	80.21	-	3,458.76
	11/7/2014	3,538.97	-	80.13	-	3,458.84
	2/19/2015	3,538.97	-	80.10	-	3,458.87
	5/7/2015	3,538.97	-	80.10	-	3,458.87
	8/5/2015	3,538.97	-	80.26	-	3,458.71
	12/9/2015	3,538.97	-	80.15	-	3,458.82
	2/10/2016	3,538.97	-	80.15	-	3,458.82
	5/3/2016	3,538.97	-	80.22	-	3,458.75
	11/1/2016	3,538.97	-	80.29	-	3,458.68
12/22/2016	3,538.97	-	80.28	-	3,458.69	

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

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

**TABLE 4  
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**HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b						
		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	15.08	12.29	0.79	1.776	0.569	2.345	30.51
MW-2	7/1/2009	<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
	3/11/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/27/2010	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014
	8/26/2010	0.0022	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0022
	10/29/2010	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012
	3/25/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/26/2011	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012
	8/17/2011	0.0026	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0026
	11/29/2011	0.0020	<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	0.0036	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0036
	8/29/2012	0.0024	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0024
	11/9/2012	0.0050	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0050
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2013	0.0079	0.0027	0.0026	0.0102	0.0065	0.0167	0.0298
	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
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<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	
11/1/2016	<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	7/1/2009	<0.005	<0.005	<0.005	<0.01	<0.005		<0.01
	12/10/2009	0.0069	0.0027	<0.0010	<0.0020	<0.0010		0.0096
	3/11/2010	0.0028	<0.0020	<0.0010	<0.0020	<0.0010		0.0028
	5/27/2010	<b>0.0152</b>	0.0048	<0.0010	<0.0020	<0.0010		0.0200
	8/26/2010	0.0026	0.0021	0.0012	0.0023	0.0010	0.0033	0.0092
	10/29/2010	<b>0.0263</b>	0.0107	<0.0010	<0.0020	<0.0010		0.0370
	3/25/2011	0.00792	0.00358	<0.0010	<0.0020	<0.0010		0.0115
	5/26/2011	0.00306	<0.0020	<0.0010	<0.0020	<0.0010		0.0031
	8/17/2011	0.00991	0.00253	<0.0010	<0.0020	<0.0010		0.0124
	11/29/2011	0.00296	<0.0020	<0.0010	<0.0020	<0.0010		0.0030
	2/3/2012	0.0099	0.0029	<0.0010	<0.0020	<0.0010		0.0127
	5/1/2012	<b>0.0486</b>	0.0213	0.0011	0.0028	0.0011	0.0038	0.0748
	8/29/2012	<b>0.0164</b>	0.0043	<0.0010	<0.0020	<0.0010		0.0207
	11/9/2012	<b>0.0192</b>	0.0029	<0.0010	<0.0020	<0.0010		0.0221
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2013	<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
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<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	
11/1/2016	<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

HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321

MW-4	7/1/2009	<0.005	<0.005	<0.005	<0.01	<0.005		<0.01
	12/10/2009	0.0015	<0.0020	<0.0010	<0.0020	<0.0010		0.0015
	3/11/2010	0.0047	0.0023	<0.0010	<0.0020	<0.0010		0.0070
	5/27/2010	0.0073	0.0031	<0.0010	<0.0020	<0.0010		0.0104
	8/26/2010	0.0017	<0.0020	<0.0010	<0.0020	<0.0010		0.0017
	10/29/2010	<b>0.0525</b>	0.0189	<0.0010	<0.0020	<0.0010		0.0714
	3/25/2011	<b>0.0186</b>	0.00802	<0.0010	<0.0020	<0.0010		0.0266
	5/26/2011	<b>0.00885</b>	0.00398	<0.0010	<0.0020	<0.0010		0.0128
	8/17/2011	<b>0.0281</b>	0.0121	<0.0010	<0.0020	<0.0010		0.0402
	11/29/2011	<b>0.0112</b>	0.00589	<0.0010	<0.0020	<0.0010		0.0171
	2/5/2013	<b>0.0181</b>	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0181
	5/8/2013	<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	0.0331
	11/13/2013	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	0.0036	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0036
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0011
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	
12/9/2015	<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	
11/1/2016	<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	3/25/2011	<b>0.122</b>	0.0676	<0.0050	<0.0020	<0.0050	<0.0020	0.1896
	5/26/2011	<b>0.216</b>	0.0933	0.0012	0.0957	0.0065	0.1022	0.327
	8/17/2011	<b>0.276</b>	0.0697	0.0052	0.0105	0.0045	0.0150	0.366
	11/29/2011	<b>0.245</b>	0.0742	0.0101	0.0132	0.0043	0.0175	0.347
	2/3/2012	<b>0.513</b>	0.0978	<0.0010	<0.0020	<0.0010	<0.0020	0.611
	5/1/2012	<b>2.38</b>	<0.250	<0.500	<0.250	<0.250	<0.250	2.38
	8/29/2012	<b>3.39</b>	0.0932	0.0386	0.0278	0.0165	0.0443	3.57
	11/9/2012	<b>3.58</b>	0.209	<0.0250	<0.0500	<0.0250	0.0000	3.79
	2/5/2013	<b>2.35</b>	<0.0400	0.0302	<0.0400	<0.0200	<0.0400	2.38
	5/8/2013	<b>6.50</b>	0.242	0.132	0.138	<0.0500	0.1380	7.01
	8/5/2013	<b>0.011</b>	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.011
	11/13/2013	<b>1.38</b>	<0.0020	0.0242	<0.0020	<0.0010	<0.0020	1.40
	2/14/2014	<b>2.64</b>	<0.0200	0.0337	<0.0200	<0.0100	<0.0200	<0.0200
	5/8/2014	<b>0.8950</b>	0.0262	0.0090	0.0172	0.0063	0.0235	0.9540
	8/5/2014	<b>3.41</b>	0.0902	0.0708	0.0508	<0.0020	0.0508	3.62
	11/19/2014	<b>5.11</b>	0.3910	0.2390	0.1190	0.0678	0.1870	5.93
	2/23/2015	<b>3.64</b>	0.4580	0.1350	0.0662	0.0376	0.1040	4.34
	5/7/2015	<b>7.54</b>	<b>1.44</b>	0.2470	0.3100	0.1700	0.4800	9.71
	8/5/2015	<b>0.253</b>	0.0679	0.0098	0.0085	0.0053	0.0138	0.344
	12/9/2015	<b>19.6</b>	<b>9.33</b>	<b>1.01</b>	1.17	0.6030	<b>1.77</b>	31.7
2/10/2016	<b>8.04</b>	<b>1.79</b>	0.276	0.289	1.81	0.470	10.6	
5/3/2016	<b>2.42</b>	<b>0.631</b>	0.102	0.120	0.0628	0.183	3.34	
11/1/2016	<b>7.42</b>	<b>2.09</b>	0.393	0.546	0.271	<b>0.817</b>	10.7	
12/22/2016	<b>4.89</b>	<b>1.95</b>	0.280	0.290	0.170	0.460	7.58	

**TABLE 4  
2016 ANNUAL REPORT**

**HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX  
DCP PLANT TO LEA STATION 6-INCH #2  
LEA COUNTY, NEW MEXICO  
PLAINS SRS #: 2009-039  
NMOCD REFERENCE #: 1RP-2136  
TERRACON PROJECT #: AR167321**

MW-6	9/25/2013	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/2013	0.0047	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0047
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0013
	8/5/2014	0.0019	0.0064	<0.0010	<0.0020	<0.0010	<0.0020	0.0083
	11/7/2014	0.0042	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0042
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<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
	11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
MW-7	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
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<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
	11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
<b>NMOCD CRITERIA</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>TOTAL XYLENES 0.62</b>			

TABLE 5  
2016 ANNUAL REPORT

HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)<sup>1</sup>  
DCP PLANT TO LEA STATION 6-INCH #2  
PLAINS SRS #: 2009-039  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER 1RP-2136  
TERRACON PROJECT #: AR167321

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	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
MW-2	7/1/2009	<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	<0.005	<0.005
MW-3	7/1/2009	<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	<0.005	<0.005
MW-3	12/16/2011	<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	<0.005	<0.005
MW-3	11/9/2012	<0.00035	<0.00033	<0.00016	<0.00024	<0.00019	<0.00036	<0.00028	<0.00049	<0.00022	<0.00019	<0.00024	<0.00030	<0.00032	<0.00031	<0.00048	<0.00031	<0.00027	<0.00027
MW-4	7/1/2009	<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	<0.005	<0.005
MW-4	12/16/2011	<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	<0.005	<0.005
MW-4	11/9/2012	<0.00037	<0.00034	<0.00016	<0.00025	<0.00020	<0.00038	<0.00029	<0.00051	<0.00023	<0.00020	<0.00025	<0.00031	<0.00034	<0.00032	<0.00049	<0.00032	<0.00028	<0.00028
MW-5	3/25/2011	<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	<0.005	<0.005
MW-5	11/9/2012	<0.00037	<0.00034	<0.00016	<0.00025	<0.00020	<0.00038	<0.00029	<0.00051	<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-5	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-6	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-7	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
<b>Maximum Contaminant Levels for NM WQCC Drinking Water Standards Sections 1-101.UU and 3-103A.</b>		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<sup>1</sup>=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  
625 N. French Dr., Hobbs, NM 88240  
District II  
301 W. Grand Avenue, Artesia, NM 88210  
District III  
000 Rio Brazos Road, Aztec, NM 87410  
District IV  
220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

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

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 #2	Facility Type	Pipeline

Surface Owner	NM SLO	Mineral Owner		Lease No.	30-025-06283
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**LOCATION OF RELEASE**

*Closest Facility*

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	30	20S	37E					Lea

Latitude N 32.5316667° Longitude W 103.2911111°

**NATURE OF RELEASE**

Type of Release	Crude Oil	Volume of Release	25 bbls	Volume Recovered	0 bbls
Source of Release	6" Steel Pipeline	Date and Hour of Occurrence	02/12/2009	Date and Hour of Discovery	02/12/2009 12:30
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson (revised release volume on 02/25/2009)			
By Whom?	Jason Henry	Date and Hour	02/25/2009 @ 14:00		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

**RECEIVED**

MAR 23 2009

**HOBBSOCD**

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 10' x 12'. 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:	<i>Jason Henry</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name:	Jason Henry	Approved by District Supervisor:	
Title:	Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address:	jhenry@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date:	03/23/2009	Phone:	(575) 441-1099

*LRP-2136*

Attach Additional Sheets if Necessary

## **APPENDIX F**

CD of the 2016 Annual Groundwater Monitoring Report