Annual Report of Groundwater Monitoring and Remediation in 2019

Denton Station
Lea County, New Mexico
SRS #2003-00338
NMOCD Remediation Permit No. 1RP-0234

Plains All American Pipeline, LP

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1. Introduction

On behalf of Plains All American Pipeline, L.P. (Plains), GHD Services Inc. (GHD) is submitting this annual report for 2019 describing the results of the groundwater monitoring and remediation activities completed at Denton Station SRS #2003-00338 (Site) in compliance with New Mexico Oil Conservation Division (NMOCD) requirements. The Site is located in Lea County, New Mexico at latitude 33.017631°N, longitude 103.162478°W. The Site, according to the Public Land Survey System is in SE/4-NE/4-Section 14-Township 15S-Range 37E. A Site Location Map is provided as Figure 1. A geo-referenced aerial photograph of the Site is shown on Figure 2.

Monitoring activities completed in 2019 consisted of quarterly groundwater gauging and sampling. These activities were conducted on February 25-26, May 20-21, July 23-26, and October 22-23. Corrective actions included the recovery of hydrocarbons via several enhanced fluid recovery (EFR) events.

1.1 Site History

The Site was formerly the responsibility of Shell Pipeline Corporation. The Site is currently the responsibility of Plains. The release was reportedly from a former crude oil tank battery located to the northwest of the fenced facility located on-site.

Beginning on April 1, 2007, project management responsibilities were assumed by NOVA. GHD, (formerly Conestoga-Rovers and Associates, Inc.) assumed site remediation and project management responsibilities on May 2, 2011.

On December 12, 2012, the New Mexico Oil Conservation Division (NMCOD) corresponded with Plains via email regarding polycyclic aromatic hydrocarbons (PAHs) evaluation and provided the following directives:

> *Annual sampling of wells that have BTEX concentrations above the respective NMWQCC standard; wells where LNAPL has been removed and is no longer present; and continued sampling of each well for at least two consecutive years until each of the PAHs are at a concentration of 0.001mg/L or less (for PAHs that do not have a NMWQCC standard) and at or below NMWQCC standard for PAHs that have a standard (if applicable).*

Past assessment and cleanup activities have included monitor well installations resulting in seventeen groundwater monitoring wells at the Site. Monitor wells MW-1, MW-2, MW-3, and one out-of-service water well (WW 1) were plugged and abandoned with NMOCD approval on September 16, 2014. Replacement monitoring wells MW-1R and MW-2R were installed on September 17, 2014. Replacement monitoring well MW-3R was installed on October 7, 2014. Professional surveying of the replacement wells was performed on November 11, 2014, and re-surveyed in June 2017.

Light non-aqueous phase liquid (LNAPL) abatement via hand bailing, and enhanced fluid recovery (EFR) events were also performed during the 2019 calendar year.

2. Regulatory Framework

The Site was assigned Remediation Permit number 1RP-0234 by the NMOCD. The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the New Mexico Water Quality Control Commission (NMWQCC) Standards 20.6.2.3103 Section A. It provides the Human Health Standards for Groundwater. The constituents of concern (COCs) in impacted groundwater at the Site are benzene, toluene, ethylbenzene, and total xylenes (BTEX), benzo(a)pyrene, benzo(k)fluoranthene, and combined naphthalene and monomethylnaphthalenes. EPA and NMWQCC Human Health Standards are shown in Table 2.1.

Table 2.1 EPA and NMWQCC Human Health Standards

Analyte	EPA and NMWQCC Human Health Standard
Benzene	0.01 mg/L
Toluene	0.75 mg/L
Ethylbenzene	0.75 mg/L
Total Xylenes	0.62 mg/L
Benzo(a)pyrene	0.0002 mg/L
Benzo(k)fluoranthene	0.0002 mg/L
Combined Naphthalene and Monomethylnaphthalenes	0.03 mg/L

Table 2.2 presents the sampling schedule as previously approved by the NMOCD.

Table 2.2 Sampling Schedule Approved by NMOCD

Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Plugged/Abandoned	MW-7	Quarterly	MW-13	Quarterly
MW-2	Plugged/Abandoned	MW-8	Quarterly	MW-14	Quarterly
MW-3	Plugged/Abandoned	MW-9	Quarterly	MW-15	Quarterly
MW-4	Quarterly	MW-10	Quarterly	MW-16	Quarterly
MW-5	Quarterly	MW-11	Quarterly	MW-17	Quarterly
MW-6	Quarterly	MW-12	Quarterly	WW-1	Plugged/Abandoned

Monitoring wells MW-1R, MW-2R, and MW-3R were installed in 2014 and are currently monitored on a quarterly basis to establish consistent historical data regarding dissolved phase COCs. These wells have been added to the site sampling schedule. A letter to the NMOCD requesting approval of groundwater monitoring activity changes was submitted along with the 2016 Annual Groundwater Monitoring Report in April 2017.

3. Groundwater Monitoring

GHD conducted quarterly groundwater sampling in 2019 during February, May, July, and October. The Site is monitored in 17 monitor wells. Monitor wells at the site are gauged and sampled according to the schedule described in Table 2.2. Wells containing measureable amounts of LNAPL (>0.01 feet) were not sampled.

3.1 Groundwater Monitoring Methodology

Static fluid levels were gauged using an oil-water interface probe in all monitor wells. After recording fluid levels, wells not containing LNAPL were purged of three wetted casing volumes of groundwater. Groundwater samples were collected using clean, disposable PVC bailers. Field duplicate samples were collected from the tenth well sampled and the last well sampled.

Groundwater samples were labeled, sealed, chilled on ice in a cooler, and submitted to Pace Analytical in Mt. Juliet, Tennessee. All samples were analyzed for BTEX by method EPA 8021B. Annual analysis for PAHs by method EPA 8270C-SIM were performed on samples from wells MW-1R, and MW-17 following the fourth quarterly monitoring event.

3.2 The Potentiometric Surface and Gradient

All depth to groundwater measurements were recorded from the top of casing (TOC) of each well. Calculations of groundwater elevations used a specific gravity of 0.81 for the density of LNAPL and elevations of tops of casings obtained from a professional survey. Groundwater gauging data collected by GHD during the quarterly groundwater monitoring events in 2019 are presented in Table 1. Maps of the potentiometric surface for February, May, July, and October 2019 are provided as Figures 3 through 6, respectively.

Monitor wells MW-11 and MW-16 were gauged dry or had insufficient water to sample during all quarterly monitoring events of 2019. The groundwater flow direction is toward the southeast and is consistent with historical data. Magnitudes of gradients on the potentiometric surface were between 0.0018 foot/foot and 0.0025 foot/foot. Direction and magnitudes of the gradients on the potentiometric surface during 2019 were consistent with previous findings. Elevations of the potentiometric surface fell in all wells in which elevations of the potentiometric surface could be determined on November 26, 2018 and October 22, 2019. Amounts of decline were between 0.57 foot and 0.67 foot. The average decline was 0.61 foot.

3.3 Presence of Light Non-aqueous Phase Liquids (LNAPL)

LNAPL was observed in recovery wells MW-3R and MW-7 during all gauging events during 2019. The greatest thickness of LNAPL observed during 2019 was 0.41 feet in monitor well MW-3R on January 23, 2019. LNAPL was not observed in any other well during 2019. Charts of thicknesses of LNAPL versus time in monitor wells MW-3R, MW-5, MW-6 and MW-7 are presented in Appendix A. These charts indicate visually declining thicknesses of LNAPL in MW-3R and MW-7.

3.4 Dissolved-phase Hydrocarbons in Groundwater

Analytical results for monitoring conducted during 2018 and 2019 are included in Table 2. Results of analyses of BTEX during the first, second, third, and fourth quarterly monitoring events are shown on Figure 7, Figure 8, Figure 9, and Figure 10, respectively.

Benzene concentrations in MW-1R and MW-17 exceeded the NMWQCC Human Health Standard of 0.01 mg/L in all quarterly monitoring events of 2019. The greatest of those concentrations was 3.31 mg/L in monitor well MW-17 during the first quarterly event. No other wells exhibited dissolved benzene concentrations which exceeded the standard. All other BTEX constituents were below their

respective Human Health Standards. Charts of dissolved benzene versus time in selected wells are in Appendix B. These charts indicate that trend of dissolved benzene in monitor well MW-1R is visually declining, while the trends in MW-5 and MW17 are visually increasing.

In accordance with the request from NMOCD, PAHs in samples collected from MW-1R and MW-17 in October 2019 were analyzed. MW-17 exceeded the NWQCC Human Health Standard for combined naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. Concentrations of dibenzofuran, fluorene, and phenanthrene in MW-17 exceeded the standard of 0.001 mg/L required by correspondence from the NMOCD in 2012 referred to in Section 1.1. Analytical results for PAHs are summarized in Table 3 and on Figure 10. Certified laboratory reports of analyses conducted during 2019 are in Appendix C.

4. Corrective Action

LNAPL was removed from monitoring wells in 2019 via periodic hand bailing events and monthly enhanced fluid recovery (EFR) events on targeted wells MW-3R and MW-7. A total of 1.4 gallons of LNAPL was recovered during these events. Based on historical records for this release location, the cumulative volume of LNAPL recovered from the Denton site is 8,274.4 gallons (197.01 barrels).

A total of 6,552 gallons (156 barrels) of groundwater were also removed during the eleven EFR events performed on MW-3R and MW-7 in 2019. Approximately 401.35 gallons of groundwater water were purged from monitor wells as part of the quarterly sampling and hand bailing events. All fluids recovered from EFR and purging activities were transferred to a storage tank and disposed at a licensed disposal facility as directed by Plains.

5. Summary of Findings

Based on results of the groundwater monitoring and remedial activities of 2019 as described above, the following summary of findings is presented:

- MW-11 and MW-16 were gauged dry or had insufficient water for sampling during all quarterly monitoring events of 2019.
- The groundwater flow direction is toward the southeast and is consistent with historical data. Gradients on the elevation of the potentiometric surface varied between 0.0018 foot/foot and 0.0025 foot/foot.
- Elevations of the potentiometric surface fell in all monitor wells between November 26, 2018 and October 22, 2019. The average decline was 0.61 foot.
- LNAPL was observed in recovery wells MW-3R and MW-7 during all gauging events during 2019. LNAPL was not observed in any other well during 2019. The greatest thickness of LNAPL observed during 2019 was 0.41 feet in monitor well MW-3R on January 23, 2019.
- Benzene concentrations in MW-1R and MW-17 exceeded the NMWQCC Human Health Standard of 0.01 mg/L in all quarterly monitoring events in which they were sampled. The greatest of those concentrations was 3.31 mg/L in monitor well MW-17 during the first quarterly event. No other wells exhibited dissolved benzene concentrations which exceeded the standard.

- Of the two wells sampled for PAH, only one well, MW-17, had levels that exceeded regulatory standards. MW-17 exceeded the NMWQCC Human Health Standard for combined naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. Concentrations of dibenzofuran, fluorene, and phenanthrene in MW-17 exceeded the standard of 0.001 mg/L required by correspondence from the NMOCD in 2012.
- Based on historical records for this release location, the cumulative volume of LNAPL recovered from the Denton site is 8,274.4 gallons (197.01 barrels).

6. Recommendations

Based on the current groundwater conditions, GHD recommends the following path forward:

- Continue quarterly groundwater monitoring events with annual reporting to the NMOCD. Quarterly events to include monitoring well gauging and sampling groundwater for BTEX.
- Continue annual sampling for PAHs during the fourth quarterly event MW-17 and any new wells that have been installed on the Site.
- Continue LNAPL abatement of MW-3R and MW-7 with monthly EFR events to enhance LNAPL recovery.
- Request approval by NMOCD to reduce the groundwater sampling schedule for MW-9 to semi-annual and reduce the groundwater sampling schedule for MW-8 and MW-15 to annual.
- Notify NMOCD that the proposal submitted on May 9, 2019 seeking approval by NMOCD to plug monitor wells MW-11, MW-13, MW-14, and MW-16 and install new monitor wells MW-18, MW-19, and MW-20 will be implemented during 2020 out of necessity to maintain delineation of the contaminant plume.

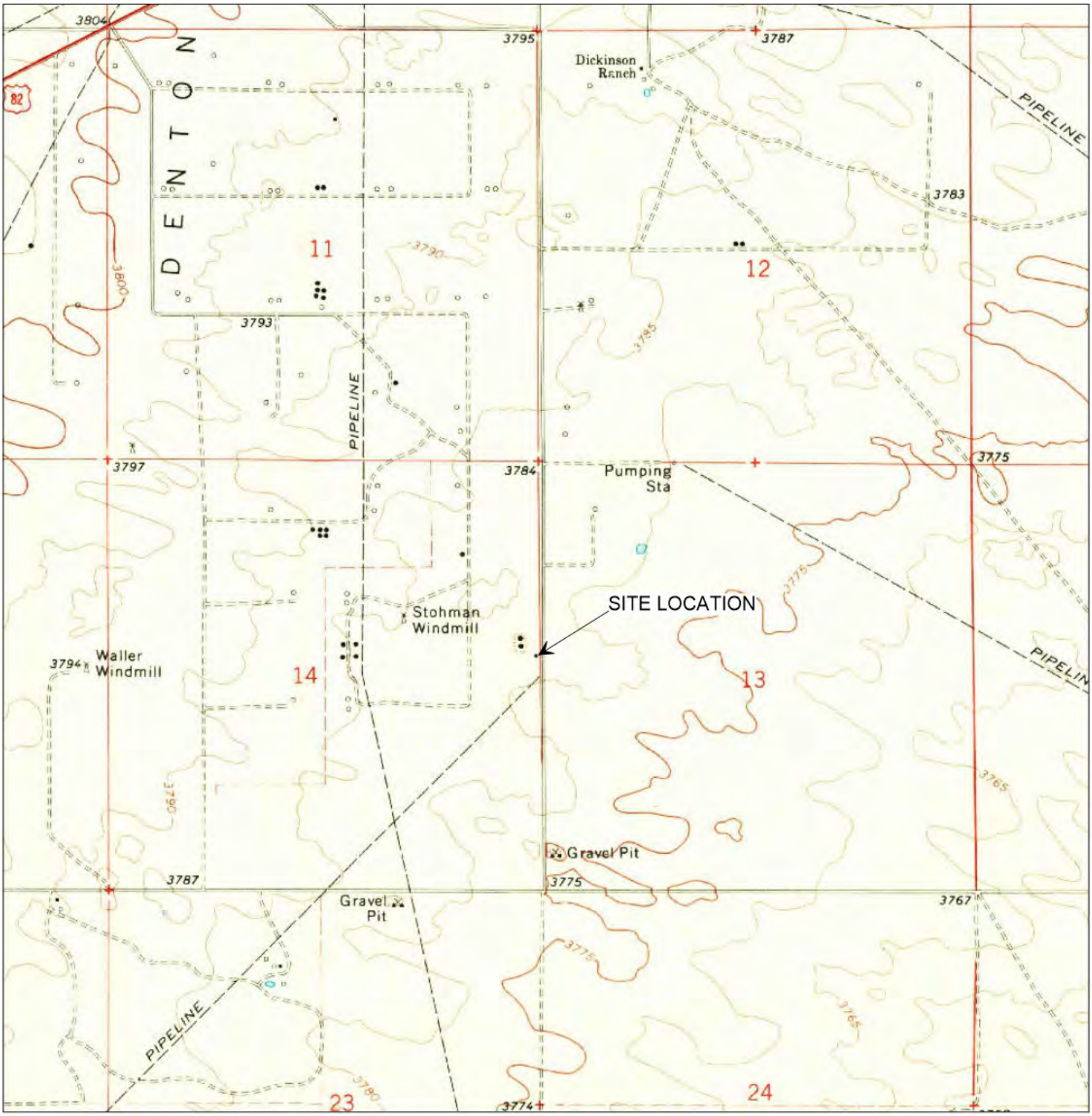
All of Which is Respectfully Submitted,

GHD

Ryan Livingston
Project Scientist

John Schnable
Senior Project Manager

Figures



SOURCE: USGS 7.5 MINUTE QUADRANGLE
PRAIRIEVIEW, NEW MEXICO

LAT/LONG: 33.0175Â° NORTH, 103.1624Â° WEST
COORDINATE: NAD83 DATUM U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

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JANUARY 3, 2020

0 FT 1000 FT 2000 FT

PLAINS ALL AMERICAN PIPELINE COMPANY
DENTON STATION
SRS2003-00338, NMOCD RP 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

SITE LOCATION MAP

FIGURE 1

Well Location
Ø Plugged Well Location

0 FT 50 FT 100 FT

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ANNUAL REPORT OF GROUNDWATER MONITORING
AND REMEDIATION IN 2019

SITE DETAILS MAP

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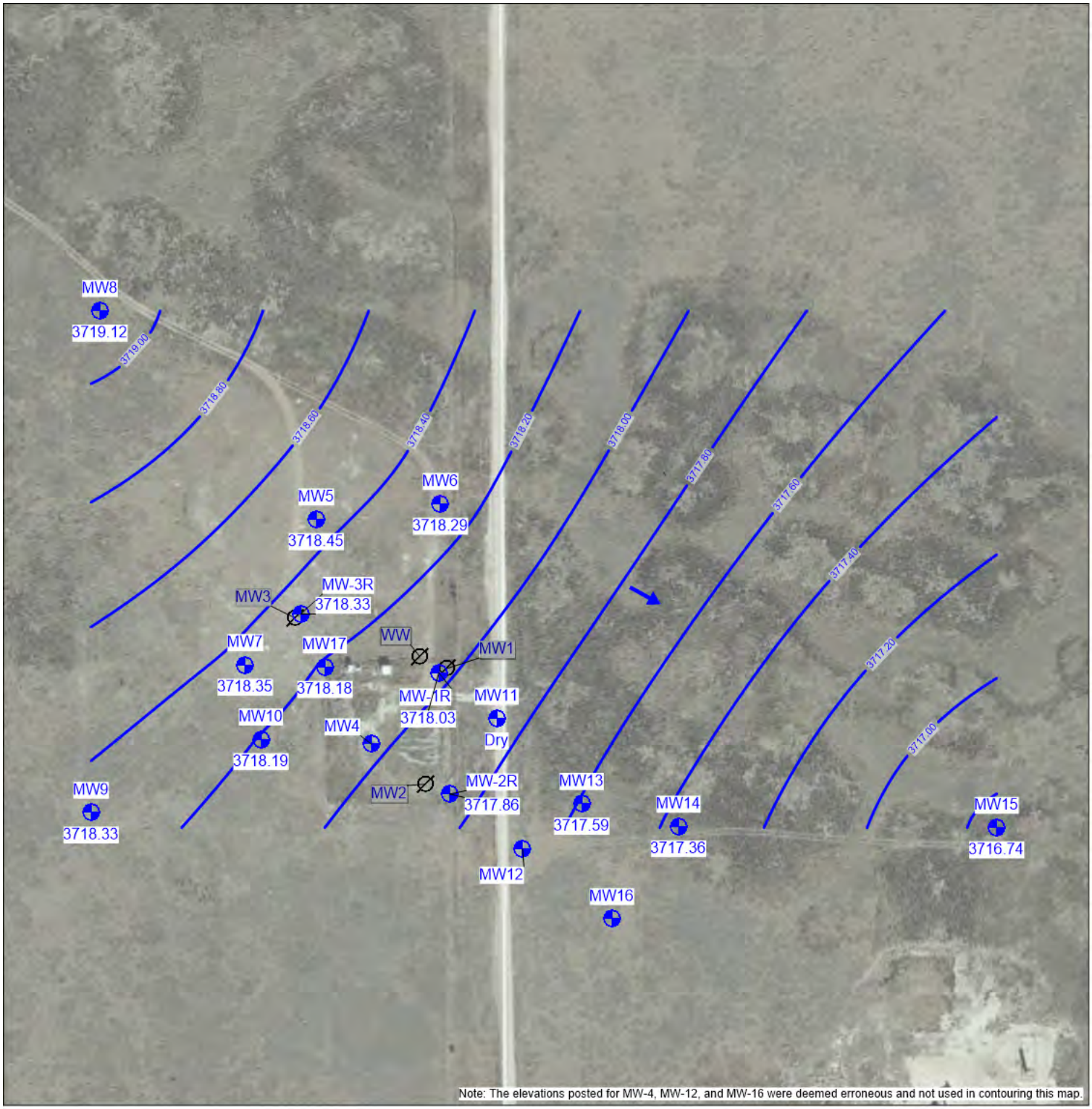
JANUARY 3, 2020

FIGURE 2



Well Location

Plugged Well Location

2589.91 Elevation of Potentiometric Surface (famsl)

Direction of Groundwater Flow

0 FT 50 FT 100 FT

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AND REMEDIATION IN 2019

MAP OF THE POTENTIOMETRIC SURFACE FEBRUARY 25, 2019

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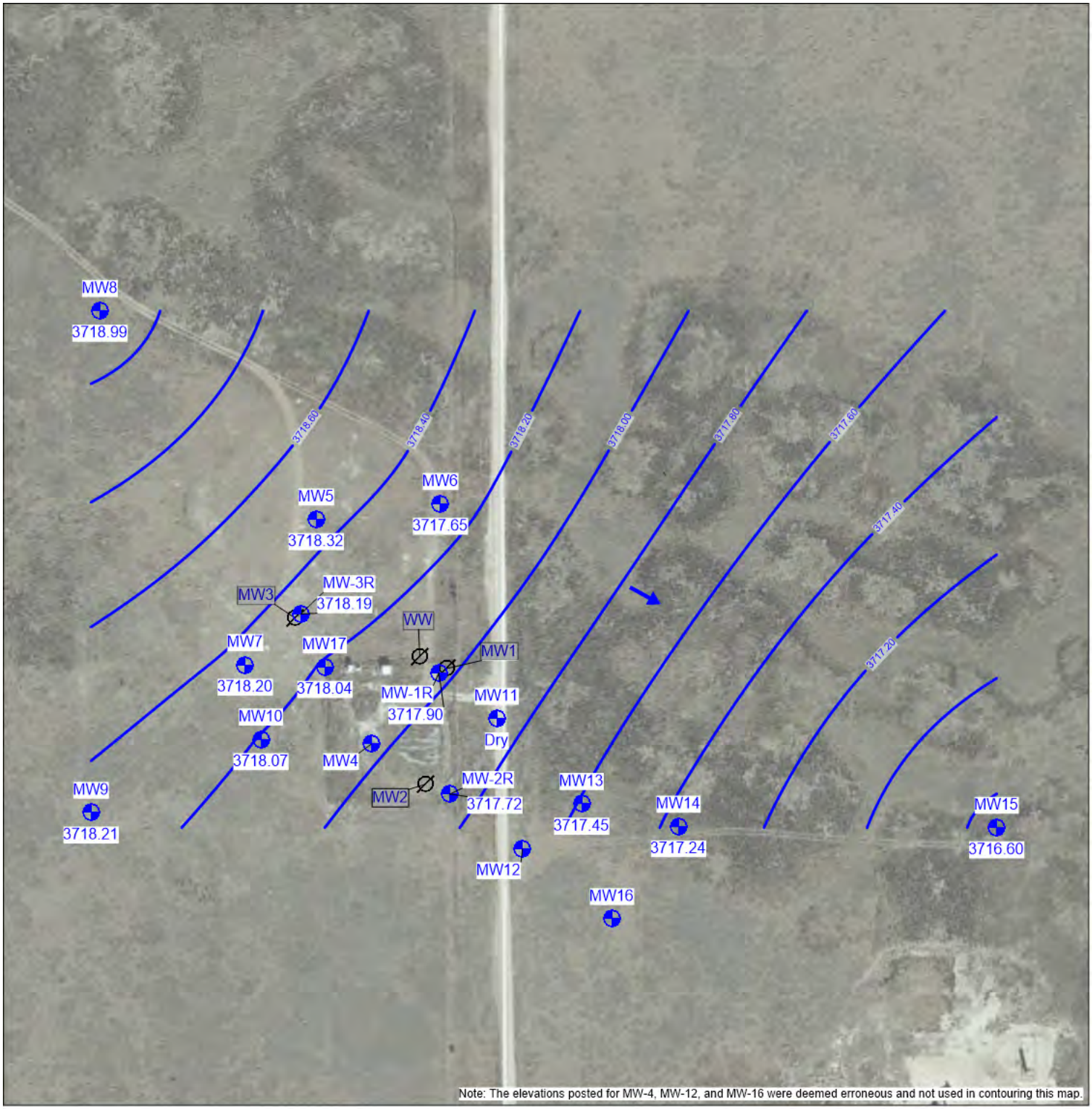
FEBRUARY 25, 2019

FIGURE 3



Well Location

Plugged Well Location

2589.91 Elevation of Potentiometric Surface (famsl)

Direction of Groundwater Flow

0 FT 50 FT 100 FT

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SRS2003-00338, NMOCD RP 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING
AND REMEDIATION IN 2019

MAP OF THE POTENTIOMETRIC SURFACE MAY 20, 2019

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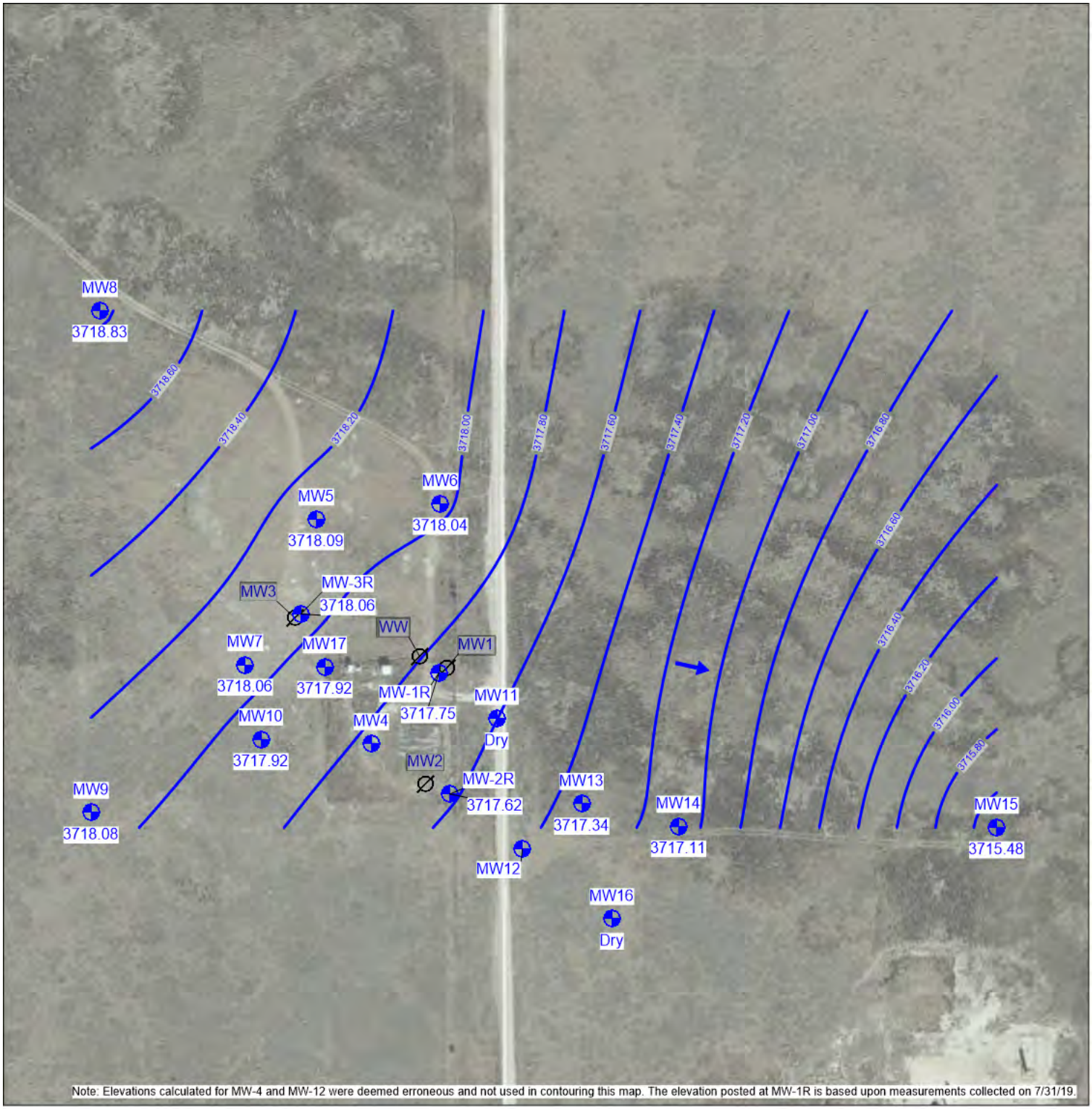
MAY 20, 2019

FIGURE 4



Well Location

Plugged Well Location

2589.91 Elevation of Potentiometric Surface (famsl)

Direction of Groundwater Flow

0 FT 50 FT 100 FT

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DENTON STATION
SRS2003-00338, NMOCD RP 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING
AND REMEDIATION IN 2019

MAP OF THE POTENTIOMETRIC SURFACE JULY 23, 2019

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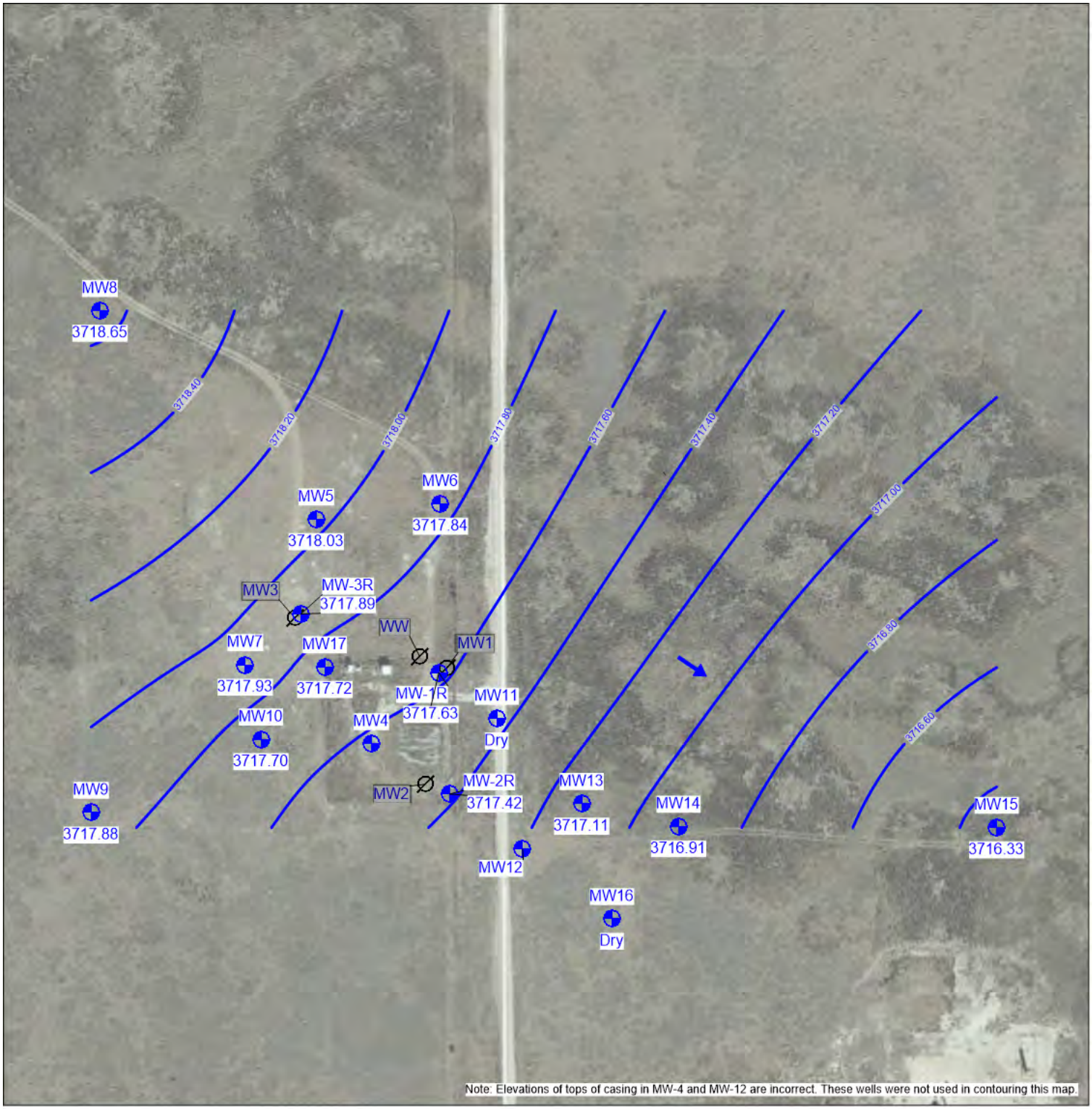
JULY 23, 2019

FIGURE 5



Well Location

Plugged Well Location

2589.91 Elevation of Potentiometric Surface (famsl)

Direction of Groundwater Flow

0 FT 50 FT 100 FT

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DENTON STATION
SRS2003-00338, NMOCD RP 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

MAP OF THE POTENTIOMETRIC SURFACE OCTOBER 22, 2019

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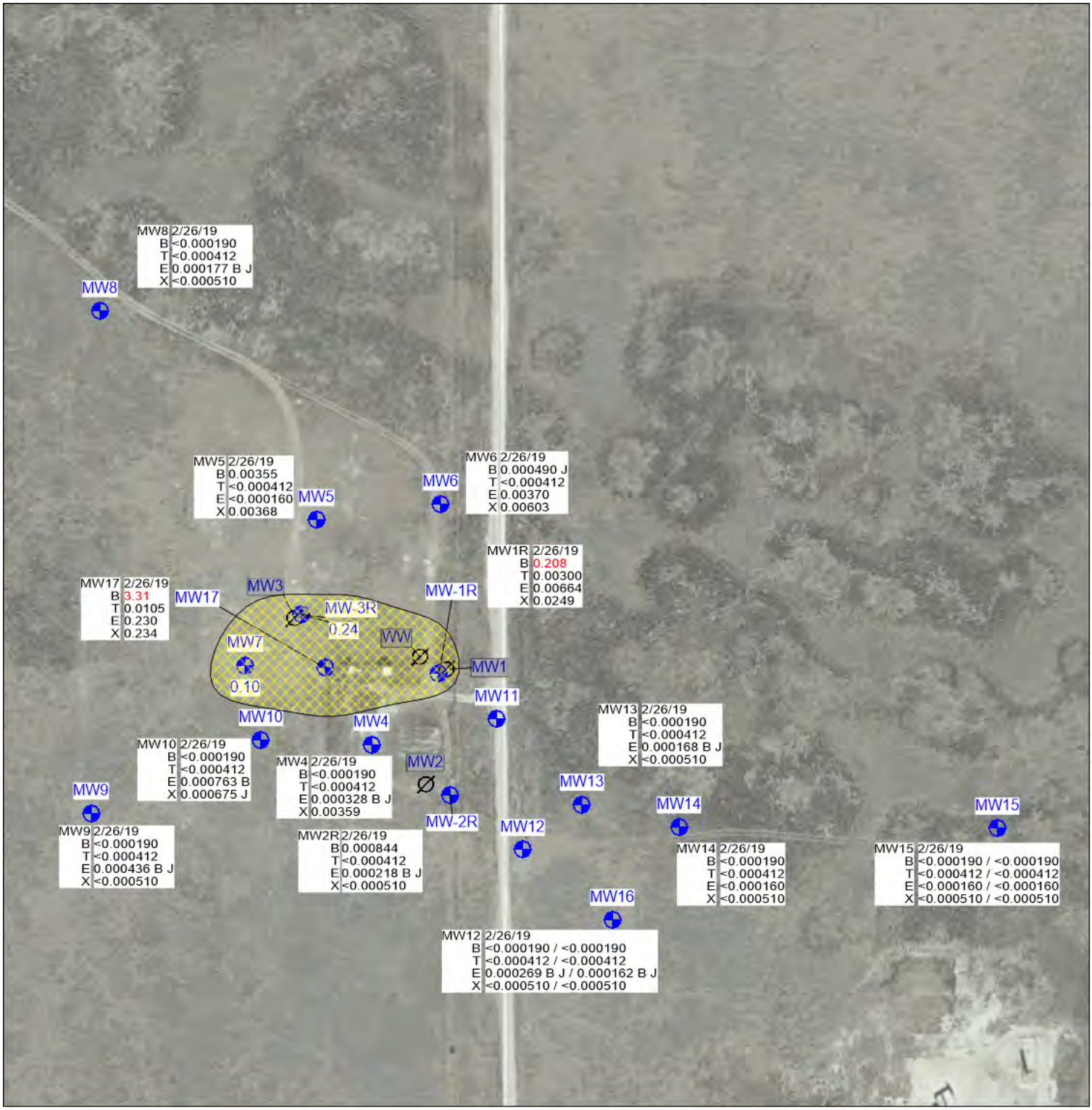
OCTOBER 22, 2019

FIGURE 6



SAMPLE LOCATION — MW-2 — 11/11/18 — DATE SAMPLED
BENZENE — B — 0.0231 — ANALYTICAL RESULT (mg/l). RED FONT INDICATES CONCENTRATION EXCEEDS NMWQCC HUMAN HEALTH STD.
TOLUENE — T — <0.00100
ETHYLBENZENE — E — 0.00240
XYLENES — X — 0.0113 / 0.0113 — SECOND RESULTS ARE FIELD DUPLICATES
SPECIFIC PAH — 0.00126 — PAHS--ONLY EXCEEDANCES OF NMWQCC OR NMOCD STANDARDS ARE POSTED

Well Location
Plugged Well Location
3.25 Thickness of LNAPL (ft.)
Approximate Area Exceeding Regulatory Standards

0 FT 50 FT 100 FT

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ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

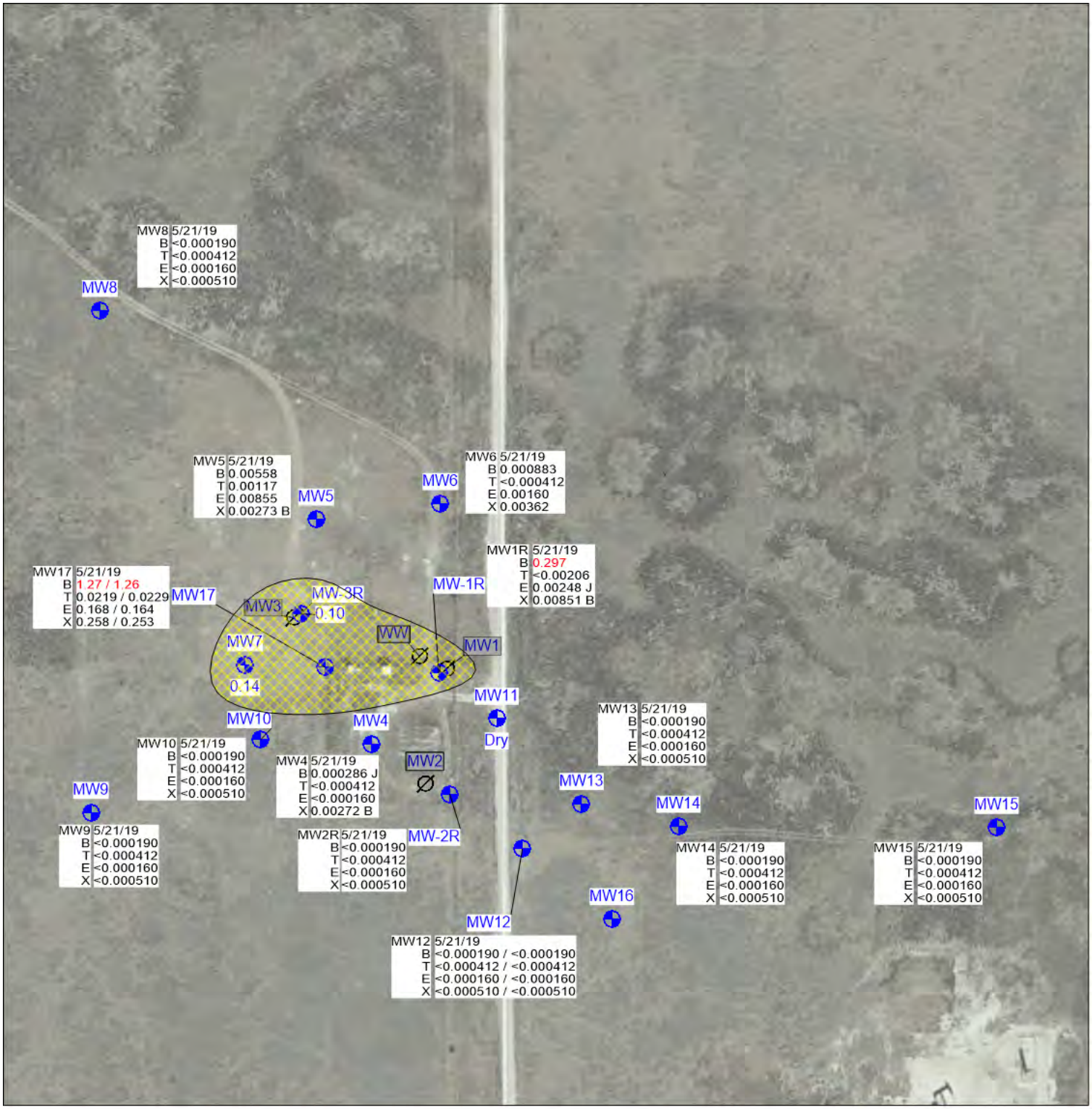
DISSOLVED BTEX IN GROUNDWATER FEBRUARY 26, 2019

PROJECT 11209870

FEBRUARY 26, 2019

FIGURE 7

11209870-02(10) GN-MAF-SVR-001 FEB 26 2019



SAMPLE LOCATION — MW-2 — 11/11/18 — DATE SAMPLED
BENZENE — B — 0.0231 — ANALYTICAL RESULT (mg/l). RED FONT INDICATES CONCENTRATION EXCEEDS NMWQCC HUMAN HEALTH STD.
TOLUENE — T — <0.00100
ETHYLBENZENE — E — 0.00240
XYLENES — X — 0.0113 / 0.0113 — SECOND RESULTS ARE FIELD DUPLICATES
SPECIFIC PAH — 0.00126 — PAHS--ONLY EXCEEDANCES OF NMWQCC OR NMOCD STANDARDS ARE POSTED

Well Location
Ø Plugged Well Location
3.25 Thickness of LNAPL (ft.)
Approximate Area Exceeding Regulatory Standards

0 FT 50 FT 100 FT

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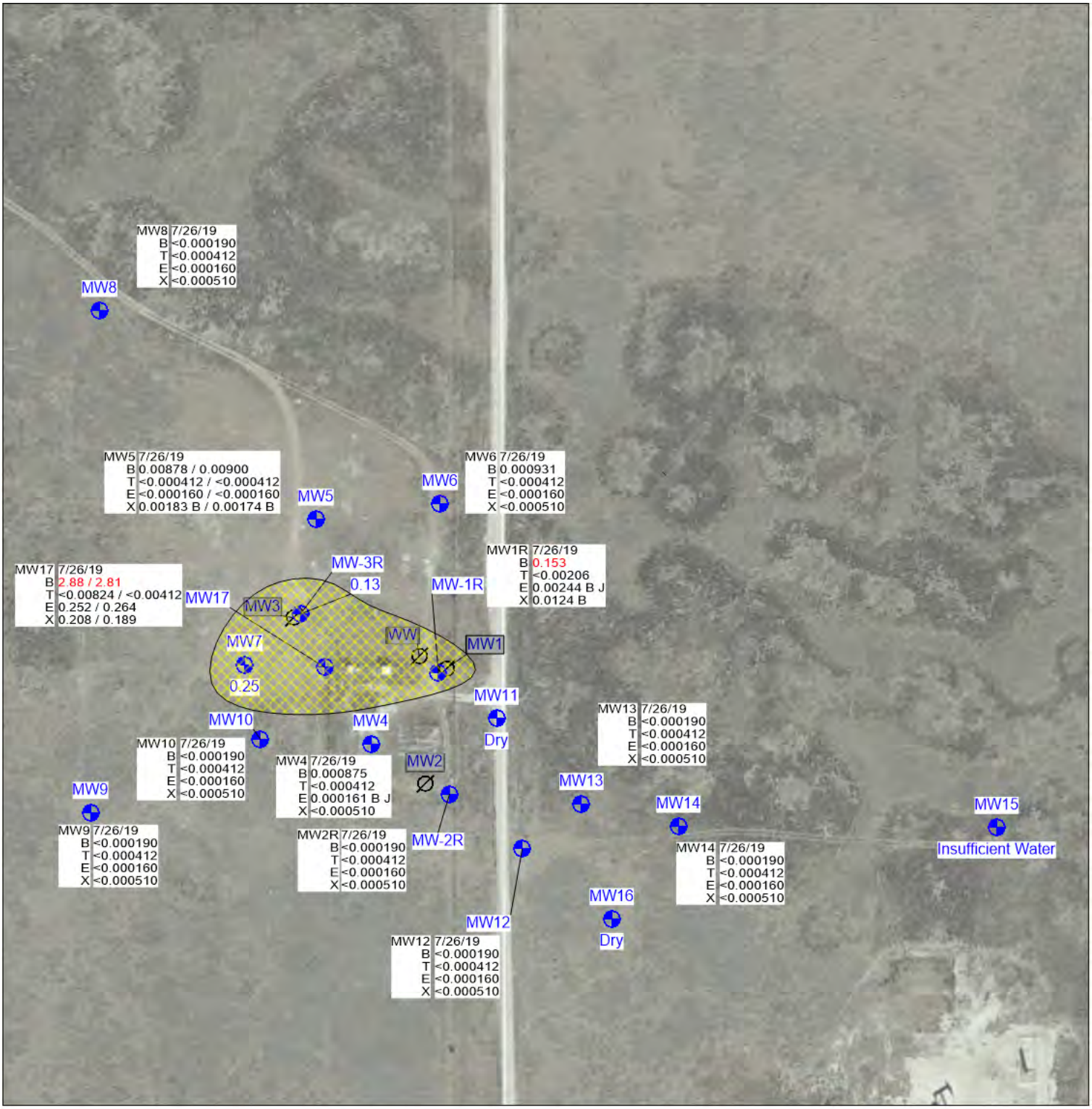
ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

DISSOLVED BTEX IN GROUNDWATER MAY 21, 2019

PROJECT 11209870

MAY 21, 2019

FIGURE 8



SAMPLE LOCATION — MW-2 — 11/11/18 — DATE SAMPLED
BENZENE — B — 0.0231 — ANALYTICAL RESULT (mg/l). RED FONT INDICATES CONCENTRATION EXCEEDS NMWQCC HUMAN HEALTH STD.
TOLUENE — T — <0.00100
ETHYLBENZENE — E — 0.00240
XYLENES — X — 0.0113 / 0.0113 — SECOND RESULTS ARE FIELD DUPLICATES
SPECIFIC PAH — 0.00126 — PAHS--ONLY EXCEEDANCES OF NMWQCC OR NMOCD STANDARDS ARE POSTED

- Well Location
- Ø Plugged Well Location
- 3.25 Thickness of LNAPL (ft.)
- Approximate Area Exceeding Regulatory Standards

0 FT 50 FT 100 FT

GHD

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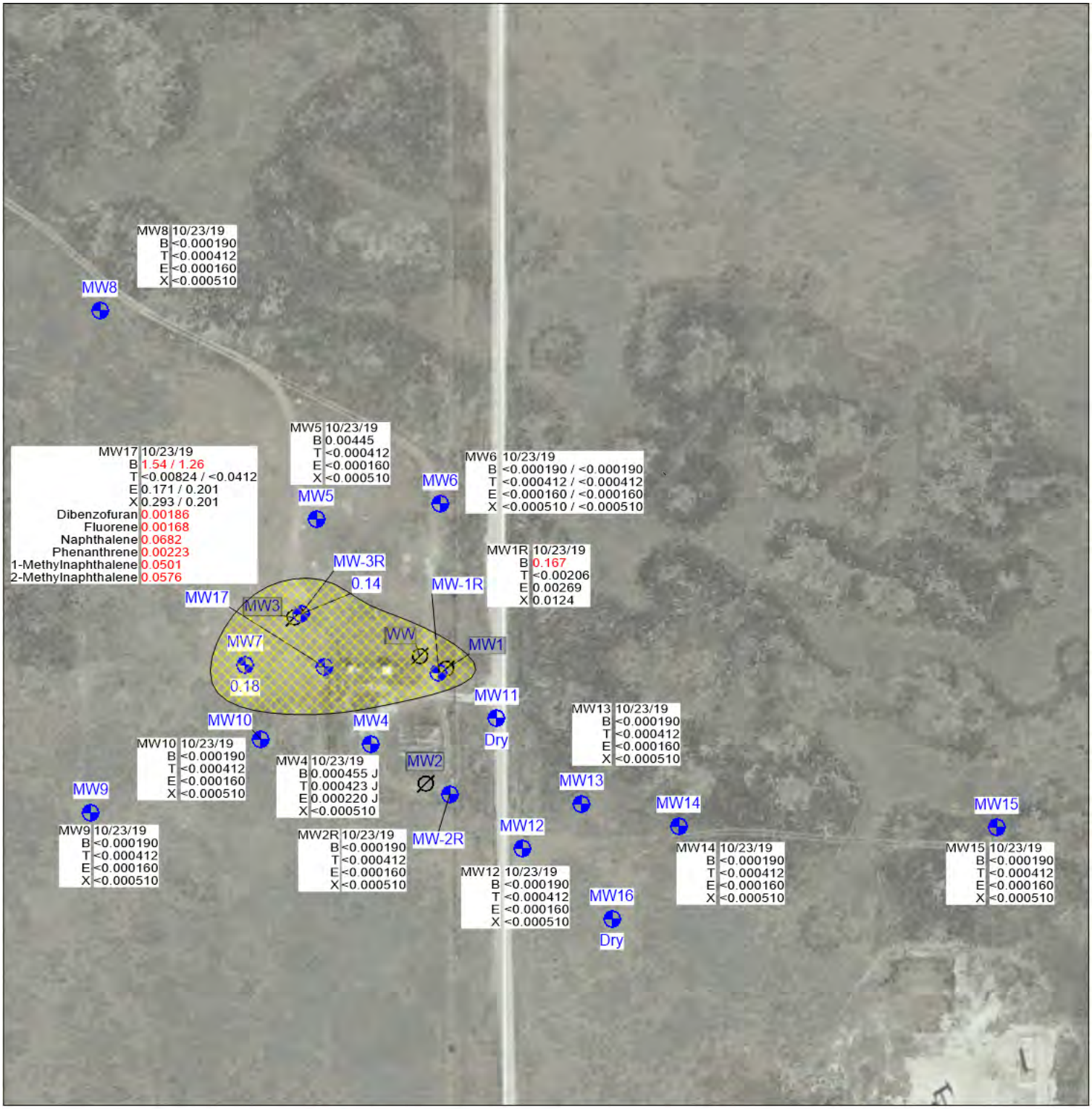
DENTON STATION SRS2003-00338, NMOCD 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

DISSOLVED BTEX IN GROUNDWATER JULY 26, 2019

PROJECT 11209870

JULY 26, 2019

FIGURE 9



SAMPLE LOCATION — MW-2 — 11/11/18 — DATE SAMPLED
BENZENE — B — 0.0231 — ANALYTICAL RESULT (mg/l). RED FONT INDICATES CONCENTRATION EXCEEDS NMWQCC HUMAN HEALTH STD.
TOLUENE — T — <0.00100
ETHYLBENZENE — E — 0.00240
XYLENES — X — 0.0113 / 0.0113 — SECOND RESULTS ARE FIELD DUPLICATES
SPECIFIC PAH — 0.00126 — PAHS--ONLY EXCEEDANCES OF NMWQCC OR NMOCD STANDARDS ARE POSTED

Well Location
Plugged Well Location
3.25 Thickness of LNAPL (ft.)
Approximate Area Exceeding Regulatory Standards

0 FT 50 FT 100 FT

PLAINS ALL AMERICAN PIPELINE COMPANY
DENTON STATION SRS2003-00338, NMOCD 1RP-0234
ANNUAL REPORT OF GROUNDWATER MONITORING AND REMEDIATION IN 2019

DISSOLVED BTEX AND PAH IN GROUNDWATER OCTOBER 23, 2019

PROJECT 11209870

OCTOBER 23, 2019

FIGURE 10

Tables

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-1R	3782.75	2/15/18								3.0	
MW-1R	3782.75	2/26/18	64.02		0.00	3718.73	67.96	57.0 - 77.0 (4 in)			
MW-1R	3782.75	3/2/18								8.0	
MW-1R	3782.75	5/29/18	64.15		0.00	3718.60	67.91				
MW-1R	3782.75	5/30/18								7.5	
MW-1R	3782.75	8/29/18	64.34		0.00	3718.41	67.96				
MW-1R	3782.75	11/26/18	64.55		0.00	3718.20				1.0	
MW-1R	3782.75	2/25/19	64.72		0.00	3718.03					
MW-1R	3782.75	2/27/19								6.0	
MW-1R	3782.75	5/20/19	64.85		0.00	3717.90					
MW-1R	3782.75	5/21/19							0.0	6.0	
MW-1R	3782.75	6/11/19							0.0	3.0	
MW-1R	3782.75	7/23/19	63.97		0.00	3718.78					
MW-1R	3782.75	7/26/19							0.0	3.0	
MW-1R	3782.75	8/21/19							0.0	3.0	
MW-1R	3782.75	7/31/19	65.00		0.00	3717.75					
MW-1R	3782.75	9/3/19									3
MW-1R	3782.75	9/11/19									3
MW-1R	3782.75	10/22/19	65.12		0.00	3717.63				5	
MW-2R	3784.17	2/26/18	65.63		0.00	3718.54	79.81	57.0 - 77.0 (4 in)			
MW-2R	3784.17	3/2/18								28.00	
MW-2R	3784.17	5/29/18	65.75		0.00	3718.42	79.74				
MW-2R	3784.17	5/30/18								28.0	
MW-2R	3784.17	8/29/18	65.94		0.00	3718.23	79.60				
MW-2R	3784.17	11/26/18	66.14		0.00	3718.03				20.0	
MW-2R	3784.17	2/25/19	66.31		0.00	3717.86					
MW-2R	3784.17	2/27/19								26.00	
MW-2R	3784.17	5/20/19	66.45		0.00	3717.72					
MW-2R	3784.17	5/21/19							0.00	26.0	
MW-2R	3784.17	7/23/19	66.55		0.00	3717.62					
MW-2R	3784.17	7/26/19							0.0	22.0	
MW-2R	3784.17	10/22/19	66.75		0.00	3717.42				22.0	
MW-3R	3786.00	1/17/18							0.3		1050
MW-3R	3786.00	2/15/18							0.1		420
MW-3R	3786.00	2/26/18	67.08	66.98	0.10	3719.00	79.93	56.6 - 76.5 (4 in)			

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-3R	3786.00	5/1/18							0.26		1260
MW-3R	3786.00	5/29/18	67.43	67.10	0.33	3718.84	79.93				
MW-3R	3786.00	8/29/18	67.46	67.24	0.22	3718.72	79.93				
MW-3R	3786.00	10/17/18	67.79	67.37	0.42	3718.55					
MW-3R	3786.00	10/17/18							0.3		630
MW-3R	3786.00	12/11/18	67.87	67.47	0.40	3718.45			0.3		630
MW-3R	3786.00	1/23/19	67.96	67.55	0.41	3718.37			0.3		630
MW-3R	3786.00	2/25/19	67.86	67.62	0.24	3718.33					
MW-3R	3786.00	2/27/19							0.3		630
MW-3R	3786.00	4/30/19	67.95	67.76	0.19	3718.20			0.12		630
MW-3R	3786.00	5/20/19	67.89	67.79	0.10	3718.19					
MW-3R	3786.00	6/5/19							0.06		546
MW-3R	3786.00	6/11/19							0.1	2.9	
MW-3R	3786.00	6/19/19	67.92	67.87	0.05	3718.12			0.03		420
MW-3R	3786.00	7/23/19	68.05	67.92	0.13	3718.06					
MW-3R	3786.00	7/31/19									420
MW-3R	3786.00	8/21/19									420
MW-3R	3786.00	9/18/19	68.01	67.84	0.17	3718.13					420
MW-3R	3786.00	10/22/19	68.22	68.08	0.14	3717.89					168
MW-3R	3786.00	11/26/19	68.32	68.14	0.18	3717.83					420
MW-3R	3786.00	12/11/19	68.27	68.22	0.05	3717.77					1,050
MW-4	3783.03	2/26/18	65.10		0.00	3717.93	72.05	35 - 65 (4 in)		14.0	
MW-4	3783.03	3/2/18									
MW-4	3783.03	5/29/18	65.23		0.00	3717.80	72.01			13.0	
MW-4	3783.03	5/30/18									
MW-4	3783.03	8/29/18	65.40		0.00	3717.63	72.05			9.0	
MW-4	3783.03	11/26/18	65.63		0.00	3717.40					
MW-4	3783.03	2/25/19	65.79		0.00	3717.24				12.0	
MW-4	3783.03	2/27/19									
MW-4	3783.03	5/20/19	65.95		0.00	3717.08				12.0	
MW-4	3783.03	5/21/19							0.00		
MW-4	3783.03	7/23/19	66.04		0.00	3716.99				7.0	
MW-4	3783.03	7/26/19							0.0	8.0	
MW-4	3783.03	10/22/19	66.23		0.00	3716.80					
MW-4	3783.81	12/13/19									

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-5	3784.28	2/15/18									
MW-5	3784.28	2/26/18	65.12		0.00	3719.16	71.49	35 - 65 (4 in)		12.0	
MW-5	3784.28	3/2/18									
MW-5	3784.28	5/29/18	65.20		0.00	3719.08	71.43			12.0	
MW-5	3784.28	5/30/18									
MW-5	3784.28	8/29/18	65.49		0.00	3718.79	71.49			7.0	
MW-5	3784.28	11/26/18	65.63		0.00	3718.65					
MW-5	3784.28	2/25/19	65.83		0.00	3718.45				12.0	
MW-5	3784.28	2/27/19									
MW-5	3784.28	5/20/19	65.96		0.00	3718.32				5.0	
MW-5	3784.28	5/21/19							0.00	3.0	
MW-5	3784.28	6/11/19							0.00		
MW-5	3784.28	7/23/19	66.19		0.00	3718.09				3	
MW-5	3784.28	8/21/19							0	5.0	
MW-5	3784.28	7/26/19							0.0	3.0	
MW-5	3784.28	9/3/19								3.0	
MW-5	3784.28	9/11/19								8.0	
MW-5	3784.28	10/22/19	66.25		0.00	3718.03					
MW-6	3785.79	2/15/18									
MW-6	3785.79	2/26/18	66.81		0.00	3718.98	73.71	35 - 65 (4 in)		14.0	
MW-6	3785.79	3/2/18									
MW-6	3785.79	5/29/18	66.91		0.00	3718.88	73.65			13.0	
MW-6	3785.79	5/30/18									
MW-6	3785.79	8/29/18	67.12		0.00	3718.67	73.71			8.0	
MW-6	3785.79	11/26/18	67.31		0.00	3718.48					
MW-6	3785.79	2/25/19	67.50		0.00	3718.29				12.0	
MW-6	3785.79	2/27/19									
MW-6	3785.79	5/20/19	68.14		0.00	3717.65				10.0	
MW-6	3785.79	5/21/19							0.00		
MW-6	3785.79	7/23/19	67.75		0.00	3718.04				8.0	
MW-6	3785.79	7/26/19							0.0	8.0	
MW-6	3785.79	10/22/19	67.95		0.00	3717.84					
MW-7	3783.06	2/15/18									
MW-7	3783.06	2/26/18	64.21	64.00	0.21	3719.02	69.51	35 - 65 (4 in)			
MW-7	3783.06	5/29/18	64.31	64.11	0.20	3718.91	69.51				

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Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
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Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-7	3783.06	8/29/18	64.38	64.30	0.08	3718.74	69.51				
MW-7	3783.06	11/26/18	64.75	64.51	0.24	3718.50					
MW-7	3783.06	1/23/19	64.90	64.59	0.31	3718.41			0.3		630
MW-7	3783.06	2/25/19	64.79	64.69	0.10	3718.35					
MW-7	3783.06	5/20/19	64.97	64.83	0.14	3718.20				3.0	
MW-7	3783.06	6/11/19							0.00	2.9	
MW-7	3783.06	8/21/19							0.10		
MW-7	3783.06	7/23/19	65.20	64.95	0.25	3718.06				2.9	
MW-7	3783.06	9/3/19							0.1	1.9	
MW-7	3783.06	9/11/19							.1		
MW-7	3783.06	10/22/19	65.28	65.10	0.18	3717.93					168
MW-8	3785.88	2/26/18	66.07		0.00	3719.81	74.14	35 - 65 (4 in)		16.0	
MW-8	3785.88	3/2/18									
MW-8	3785.88	5/29/18	66.20		0.00	3719.68	74.07			16.0	
MW-8	3785.88	5/30/18									
MW-8	3785.88	8/29/18	66.37		0.00	3719.51	74.14			10.0	
MW-8	3785.88	11/26/18	66.60		0.00	3719.28					
MW-8	3785.88	2/25/19	66.76		0.00	3719.12				15.0	
MW-8	3785.88	2/27/19									
MW-8	3785.88	5/20/19	66.89		0.00	3718.99				14.0	
MW-8	3785.88	5/21/19							0.00		
MW-8	3785.88	7/23/19	67.05		0.00	3718.83				8.0	
MW-8	3785.88	7/26/19							0.0	10.0	
MW-8	3785.88	10/22/19	67.23		0.00	3718.65					
MW-9	3784.08	2/26/18	65.05		0.00	3719.03	72.34	35 - 65 (4 in)		14.0	
MW-9	3784.08	3/2/18									
MW-9	3784.08	5/29/18	65.20		0.00	3718.88	72.27			14.0	
MW-9	3784.08	5/30/18									
MW-9	3784.08	8/29/18	65.34		0.00	3718.74	72.34			10.0	
MW-9	3784.08	11/26/18	65.57		0.00	3718.51					
MW-9	3784.08	2/25/19	65.75		0.00	3718.33				14.0	
MW-9	3784.08	2/27/19									
MW-9	3784.08	5/20/19	65.87		0.00	3718.21				13.0	
MW-9	3784.08	5/21/19							0.00		
MW-9	3784.08	7/23/19	66.00		0.00	3718.08				7.0	

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-9	3784.08	7/26/19							0.0	10.0	
MW-9	3784.08	10/22/19	66.20		0.00	3717.88					
MW-10	3782.15	2/26/18	63.27		0.00	3718.88	66.32	35 - 65 (2 in)		1.5	
MW-10	3782.15	3/2/18									
MW-10	3782.15	5/29/18	63.51		0.00	3718.64	66.29			1.5	
MW-10	3782.15	5/30/18									
MW-10	3782.15	8/29/18	63.56		0.00	3718.59	66.35			0.5	
MW-10	3782.15	11/26/18	63.78		0.00	3718.37					
MW-10	3782.15	2/25/19	63.96		0.00	3718.19				1.5	
MW-10	3782.15	2/27/19									
MW-10	3782.15	5/20/19	64.08		0.00	3718.07				1.0	
MW-10	3782.15	5/21/19							0.00		
MW-10	3782.15	7/23/19	64.23		0.00	3717.92				0.5	
MW-10	3782.15	7/26/19							0.0	0.0	
MW-10	3782.15	10/22/19	64.45		0.00	3717.70					
MW-11	3783.60	2/26/18	Dry			Dry	65.43	35 - 65 (2 in)			
MW-11	3783.60	5/29/18	Dry				65.40				
MW-11	3783.60	8/29/18	Dry				65.43				
MW-11	3783.60	11/26/18	Dry			Dry	62.67				
MW-11	3783.60	2/25/19	Dry			Dry	62.65				
MW-11	3783.60	5/20/19	Dry			Dry					
MW-11	3783.60	7/23/19	Dry			Dry					
MW-11	3783.60	10/22/19			Dry	Dry	65.39				
MW-12	3779.79	2/26/18	62.46		0.00	3717.33	67.31	35 - 65 (2 in)		2.5	
MW-12	3779.79	3/2/18									
MW-12	3779.79	5/29/18	62.68		0.00	3717.11	67.28			2.3	
MW-12	3779.79	5/30/18									
MW-12	3779.79	8/29/18	62.79		0.00	3717.00	67.31			1.0	
MW-12	3779.79	11/26/18	62.99		0.00	3716.80					
MW-12	3779.79	2/25/19	63.17		0.00	3716.62				2.0	
MW-12	3779.79	2/27/19									
MW-12	3779.79	5/20/19	63.30		0.00	3716.49				2.0	
MW-12	3779.79	5/21/19							0.00		
MW-12	3779.79	7/23/19	63.43		0.00	3716.36				1.0	

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-12	3779.79	7/26/19							0.0	0.3	
MW-12	3779.79	10/22/19	63.60		0.00	3716.19					
MW-12	3780.75	12/13/19									
MW-13	3781.14	2/26/18	62.88		0.00	3718.26	65.21	35 - 65 (2 in)		1.0	
MW-13	3781.14	3/2/18									
MW-13	3781.14	5/29/18	63.06		0.00	3718.08	65.21			1.0	
MW-13	3781.14	5/30/18									
MW-13	3781.14	8/29/18	63.17		0.00	3717.97	65.22			0.2	
MW-13	3781.14	11/26/18	63.38		0.00	3717.76					
MW-13	3781.14	2/25/19	63.55		0.00	3717.59				1.0	
MW-13	3781.14	2/27/19									
MW-13	3781.14	5/20/19	63.69		0.00	3717.45				0.75	
MW-13	3781.14	5/21/19							0.0		
MW-13	3781.14	7/23/19	63.80		0.00	3717.34				0.5	
MW-13	3781.14	7/26/19							0.0	0.0	
MW-13	3781.14	10/22/19	64.03		0.00	3717.11					
MW-14	3781.26	2/26/18	63.22		0.00	3718.04	65.03	35 - 65 (2 in)		0.6	
MW-14	3781.26	3/2/18									
MW-14	3781.26	5/29/18	63.41		0.00	3717.85	64.99			0.5	
MW-14	3781.26	5/30/18									
MW-14	3781.26	8/29/18	63.56		0.00	3717.70	64.93			0.2	
MW-14	3781.26	11/26/18	63.77		0.00	3717.49					
MW-14	3781.26	2/25/19	63.90		0.00	3717.36				0.5	
MW-14	3781.26	2/27/19									
MW-14	3781.26	5/20/19	64.02		0.00	3717.24				0.00	
MW-14	3781.26	5/21/19							0.0		
MW-14	3781.26	7/23/19	64.15		0.00	3717.11				0.0	
MW-14	3781.26	7/26/19							0.0	0.0	
MW-14	3781.26	10/22/19	64.35		0.00	3716.91					
MW-15	3782.34	2/26/18	64.93		0.00	3717.41	67.45	35 - 65 (2 in)		1.3	
MW-15	3782.34	3/2/18									
MW-15	3782.34	5/29/18	65.14		0.00	3717.20	67.40			1.3	
MW-15	3782.34	5/30/18									
MW-15	3782.34	8/29/18	65.22		0.00	3717.12	67.29			0.5	

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-15	3782.34	11/26/18	65.44		0.00	3716.90					
MW-15	3782.34	2/25/19	65.60		0.00	3716.74				1.0	
MW-15	3782.34	2/27/19									
MW-15	3782.34	5/20/19	65.74		0.00	3716.60				0.75	
MW-15	3782.34	5/21/19							0.0		
MW-15	3782.34	7/23/19	66.86		0.00	3715.48				0.0	
MW-15	3782.34	7/26/19							0.0	0.0	
MW-15	3782.34	10/22/19	66.01		0.00	3716.33					
MW-16	3780.16	2/26/18				Dry	62.24	35 - 65 (2 in)			
MW-16	3780.16	5/29/18				Dry	62.25				
MW-16	3780.16	8/29/18				Dry	62.24				
MW-16	3780.16	11/26/18				Dry	62.18				
MW-16	3780.16	2/25/19	62.08		0.00	3718.08	62.17				
MW-16	3780.16	5/20/19				Dry					
MW-16	3780.16	7/23/19				Dry					
MW-16	3780.16	10/22/19			Dry	Dry	62.24				
MW-17	3784.40	2/15/18									
MW-17	3784.40	2/26/18	65.55		0.00	3718.85	75.22	35 - 65 (2 in)		4.6	
MW-17	3784.40	3/2/18									
MW-17	3784.40	5/29/18	65.68		0.00	3718.72	75.22			4.5	
MW-17	3784.40	5/30/18									
MW-17	3784.40	8/29/18	65.86	65.84	0.02	3718.56	75.22			14.0	
MW-17	3784.40	11/26/18	66.05		0.00	3718.35					
MW-17	3784.40	2/25/19	66.22		0.00	3718.18				4.5	
MW-17	3784.40	2/27/19									
MW-17	3784.40	5/20/19	66.36		0.00	3718.04				18.00	
MW-17	3784.40	5/21/19							0.0	2.9	
MW-17	3784.40	6/11/19							0.1		
MW-17	3784.40	7/23/19	66.48		0.00	3717.92				3	
MW-17	3784.40	8/21/19							0	2.5	
MW-17	3784.40	7/26/19							0.0	3.0	
MW-17	3784.40	9/3/19								3.0	
MW-17	3784.40	9/11/19								14.0	
MW-17	3784.40	10/22/19	66.68		0.00	3717.72					

Table 1

Summary of Fluid Level Measurements
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)

Notes:

1. famsl - .Feet above mean sea level
2. fbtoc - Feet below top of casing
3. LNAPL - Light non-aqueous phase liquid.
4. fbgs - Feet below ground surface
5. Specific gravity of 0.81 was used to calculate elevation of the potentiometric surface where measureable LNAPL was present.
6. MWs 1-9 have slotted intervals of 35-65' bgs with 4-in. diameter casings. MWs 10-17 have slotted intervals 35-65 feet bgs with 2-in. casings.

Table 2

Summary of Dissolved Contaminants in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-Benzene (mg/l)	Total Xylenes (mg/l)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-1R	3/2/18	**0.388**	**0.00286**	**0.00969**	**0.0333**
MW-1R	5/30/18	**0.740 D**	**0.00281**	**0.0377**	**0.118**
MW-1R	8/31/18	**0.452**	<0.000412	**0.0121**	**0.0416**
MW-1R	11/30/18	**0.645**	<0.000412	**0.0146**	**0.0581**
MW-1R	2/26/19	**0.208**	**0.00300**	**0.00664**	**0.0249**
MW-1R	5/21/19	**0.297**	<0.00206	**0.00248 J**	**0.00851 B**
MW-1R	7/26/19	**0.153**	<0.00206	**0.00244 B J**	**0.0124 B**
MW-1R	10/23/19	**0.167**	<0.00206	**0.00269**	**0.0124**
MW-2R	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-2R	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-2R	8/31/18	**0.00255**	<0.000412	<0.000160	<0.000510
MW-2R	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R (DUP-2)	11/30/18	**0.000679**	<0.000412	<0.000160	<0.000510
MW-2R	2/26/19	**0.000844**	<0.000412	**0.000218 B J**	<0.000510
MW-2R	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-4	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-4	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-4	8/31/18	**0.000668**	<0.000412	**0.000331 J**	<0.000510
MW-4	11/30/18	**0.000896**	<0.000412	<0.000160	<0.000510
MW-4	2/26/19	<0.000190	<0.000412	**0.000328 B J**	**0.00359**
MW-4	5/21/19	**0.000286 J**	<0.000412	<0.000160	**0.00272 B**
MW-4	7/26/19	**0.000875**	<0.000412	**0.000161 B J**	<0.000510
MW-4	10/23/19	**0.000455 J**	**0.000423 J**	**0.000220 J**	<0.000510
MW-5	3/2/18	<0.00200	**0.00395**	<0.00200	<0.00200
MW-5 (DUP-2)	3/2/18	<0.00200	**0.00358**	<0.00200	<0.00200
MW-5	5/30/18	**0.00206**	**0.00208**	<0.00200	**0.0135**
MW-5 (DUP-2)	5/30/18	**0.00212**	**0.00280**	<0.00200	**0.0149**
MW-5	8/31/18	**0.00982**	<0.000412	<0.000160	**0.00942**
MW-5 (DUP-1)	8/31/18	**0.0147**	<0.000412	<0.000160	**0.02550**
MW-5	11/30/18	**0.0132**	<0.000412	**0.0296**	<0.000510
MW-5	2/26/19	**0.00355**	<0.000412	<0.000160	**0.00368**
MW-5	5/21/19	**0.00558**	**0.00117**	**0.00855**	**0.00273 B**
MW-5	7/26/19	**0.00878**	<0.000412	<0.000160	**0.00183 B**
MW-5 (DUP-1)	7/26/19	**0.00900**	<0.000412	<0.000160	**0.00174 B**
MW-5	10/23/19	**0.00445**	<0.000412	<0.000160	<0.000510
MW-6	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200

Table 2

Summary of Dissolved Contaminants in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-Benzene (mg/l)	Total Xylenes (mg/l)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-6	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-6	8/31/18	<0.000190	<0.000412	**0.000317 J**	**0.00133 B J**
MW-6	11/30/18	**0.000572**	<0.000412	<0.000160	<0.000510
MW-6	2/26/19	**0.000490 J**	<0.000412	**0.00370**	**0.00603**
MW-6	5/21/19	**0.000883**	<0.000412	**0.00160**	**0.00362**
MW-6	7/26/19	**0.000931**	<0.000412	<0.000160	<0.000510
MW-6	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-6 (Dup-1)	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-8	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-8	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-8	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-8	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-8 (DUP-1)	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-8	2/26/19	<0.000190	<0.000412	**0.000177 B J**	<0.000510
MW-8	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-8	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-8	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-9	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-9	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-9	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-9	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-9	2/26/19	<0.000190	<0.000412	**0.000436 B J**	<0.000510
MW-9	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-9	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-9	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-10	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-10	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	2/26/19	<0.000190	<0.000412	**0.000763 B**	**0.000675 J**
MW-10	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-11	3/2/18	DRY			
MW-11	5/30/18	DRY			
MW-11	2/26/19	Dry			
MW-11	5/21/19	Dry			
MW-11	7/26/19	Dry			

Table 2

Summary of Dissolved Contaminants in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-Benzene (mg/l)	Total Xylenes (mg/l)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-11	10/23/19	Dry			
MW-12	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-12 (DUP-1)	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-12	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-12 (DUP-1)	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-12	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	2/26/19	<0.000190	<0.000412	**0.000269 B J**	<0.000510
MW-12 (DUP-1)	2/26/19	<0.000190	<0.000412	**0.000162 B J**	<0.000510
MW-12	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-12 (DUP-1)	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-13	3/2/18	---	---	---	---
MW-13	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-13	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-13 (DUP-2)	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-13	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-13	2/26/19	<0.000190	<0.000412	**0.000168 B J**	<0.000510
MW-13	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-13	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-13	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-14	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-14	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	2/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	7/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	3/2/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-15	5/30/18	<0.00200	<0.00200	<0.00200	<0.00200
MW-15	8/31/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	11/30/18	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	2/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15 (DUP-2)	2/26/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	5/21/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	7/26/19	Insufficient Water to Sample			

Table 2

Summary of Dissolved Contaminants in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	*Sample Date*	*Benzene (mg/l)*	*Toluene (mg/l)*	*Ethyl-Benzene (mg/l)*	*Total Xylenes (mg/l)*
		NMWQCC Human Health Standards			
		0.01	***0.75***	***0.75***	***0.62***
MW-15	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	3/2/18	DRY			
MW-16	5/30/18	DRY			
MW-16	8/29/18	DRY			
MW-16	11/30/18	DRY			
MW-16	2/26/19	Dry			
MW-16	5/21/19	Dry			
MW-16	7/24/19	Dry			
MW-16	10/23/19	Dry			
MW-17	3/2/18	**1.71**	**0.0376**	**0.206**	**0.299**
MW-17	5/30/18	**1.74**	**0.00308**	**0.0979**	**0.128**
MW-17	11/30/18	**1.24**	**0.0259**	**0.170**	**0.223**
MW-17	2/26/19	**3.31**	**0.0105**	**0.230**	**0.234**
MW-17	5/21/19	**1.27**	**0.0219**	**0.168**	**0.258**
MW-17(DUP-2)	5/21/19	**1.26**	**0.0229**	**0.164**	**0.253**
MW-17	7/26/19	**2.88**	<0.00824	**0.252**	**0.208**
MW-17 (DUP-2)	7/26/19	**2.81**	<0.00412	**0.264**	**0.189**
MW-17	10/23/19	**1.54**	<0.00824	**0.171**	**0.293**
MW-17 (Dup-2)	10/23/19	**1.26**	<0.0412	**0.201**	**0.201**
Trip Blank	2/26/19	<0.000190	<0.000412	**0.000385 B J**	<0.000510
Trip Blank	10/23/19	<0.000190	<0.000412	<0.000160	<0.000510

Table 2

Summary of Dissolved Contaminants in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethyl-Benzene (mg/l)	Total Xylenes (mg/l)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62

Notes:

1. Shaded cells indicate New Mexico Water Quality Control Commission Regulatory Limit exceedances.
2. Bold indicates detection.
3. BTEX analyzed by EPA Method 8021B.
4. Results shown in mg/L.
5. March 2011 results collected by NOVA.
6. Yellow-shaded cells indicate concentrations that exceed the NMWQCC Human Health Standard.
7. J--The identification of the analyte is acceptable. The reported value is an estimate.
8. B--The same analyte is found in the associated blank. If the detection in the well is less than 5 times the detection in the blank, then the detection in the well should be considered as a non-detect.

Table 3

Summary of Dissolved PAH Compounds in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Anthracene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Benzo(a)anthracene (mg/L)	Benzo(a)pyrene (mg/L)	Benzo(b)fluoranthene (mg/L)	Benzo(g,h,i)perylene (mg/L)	Benzo(k)fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)anthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd)pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)
		EPA and NMWQCC Human Health Standards																		
		0.001	0.001	0.001	0.001	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.03	0.001	0.001	0.03	0.03
MW-1	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.024	<0.000922	0.0589	<0.000922	0.135	0.0849	<0.000922	0.397	0.529
MW-1	12/3/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.00956	<0.000917	0.0262	<0.000917	0.0776	0.0356	<0.000917	0.204	0.286
MW-1R	11/19/14	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.000261	<0.000186	<0.000186	0.000859	0.000541	0.000193	0.00107	0.000273
MW-1R	12/4/15	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	0.00514	<0.000197	<0.000197	0.00373	0.00184
MW-1R	11/3/16	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000513	<0.000184	<0.000184	<0.000184	0.00297	0.00135	0.000314	0.00205	0.00088
MW-1R	11/30/17	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	0.000199	<0.000192	0.000213	<0.000192	0.00265	0.000383	<0.000192	0.000905	0.000422
MW-1R	11/30/18	0.0000522	0.0000596	<0.0000120	<0.00000410	0.0000164 B J	0.0000023 J	<0.00000227	<0.0000136	<0.0000108	0.0000181 B J	0.000520	<0.0000157	0.000426	<0.0000148	0.0123	0.000459	<0.0000117	0.00564	0.00530
MW-1R	10/23/19	0.0000404 J	0.0000581	0.0000120	0.00000410	0.0000116	0.00000212	0.00000227	0.0000136	0.0000108	0.00000396	0.000413	<0.0000157	0.000335	<0.0000148	0.00264	0.000193	0.0000121 J	0.00163	0.000991
MW-2	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-2	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-2R	11/19/14	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	0.000506	<0.000190	<0.000190	<0.000190
MW-2R	12/4/15	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
MW-2R	11/3/16	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000287	<0.000184	<0.000184	<0.000184
MW-4	12/11/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00141	<0.000185	0.00202	<0.000185	0.00565	0.001	<0.000185	0.00523	0.00331
MW-4	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000877	<0.000184	0.00140	<0.000184	0.00532	0.000405	<0.000184	0.00272	0.00179
MW-4	12/1/11	<0.000184	<0.000184	<0.000184	<0.000184	0.000331	<0.000184	0.00158	<0.000184	<0.000184	0.000872	0.000569	<0.000184	0.000610	0.00118	0.00122	<0.000184	<0.000184	0.00250	0.000750
MW-4	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	0.00106	<0.000190
MW-4	12/4/15	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198
MW-4	11/3/16	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.000351	<0.000186	<0.000186
MW-5	12/11/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.041	<0.000917	0.0758	<0.000917	0.376	0.115	<0.000917	0.949	1.26
MW-5	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00208	<0.000184	0.00325	<0.000184	0.0305	0.00328	<0.000184	0.0414	0.0374
MW-5	11/29/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.0029	<0.000186	0.00476	<0.000186	0.0484	0.00625	<0.000186	0.0498	0.0617
MW-5	11/19/14	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.00134	<0.000200	0.0073	0.00208	<0.000200	0.0124	0.0140
MW-5	11/3/16	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00417	0.00537	<0.000184	0.0185	0.0135
MW-5	11/30/17	<0.000195	<0.000195	<0.000195	0.000380	<0.000195	<0.000195	<0.000195	<0.000195	0.000305	<0.000195	<0.000195	<0.000195	0.000200	<0.000195	<0.000391	<0.000195	<0.000195	---	---
MW-5	11/30/18	0.000737	<0.0000200	<0.0000240	<0.00000820	<0.0000232	0.0000535 J	0.0000306 J	<0.0000272	0.0000858 J	<0.00000792	0.000420	0.000122	0.000807	<0.0000296	0.000378 B J	0.00114	0.000382	0.00279	0.00272
MW-6	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00128	<0.000184	0.00226	<0.000184	0.00187	0.0006	<0.000184	0.00275	0.00193
MW-6	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00305	<0.000183	0.00686	<0.000183	0.0102	0.00871	<0.000183	0.0428	0.0553
MW-6	11/29/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.000781	<0.000186	0.0011	<0.000186	0.00213	<0.000186	<0.000186	0.000871	0.000671
MW-6	12/1/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00104	<0.000183	0.000675	0.00146	<0.000183	0.00362	<0.000183
MW-6	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-6	11/19/14	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	0.000328	0.000718	<0.000195	0.000462	0.00113	<0.000195	0.00237	0.000459
MW-6	12/4/15	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	<0.000197	0.000291	<0.000197	0.000506	<0.000197	<0.000197	<0.000197	<0.000197	0.00083	<0.000197
MW-6	11/3/16	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00183	<0.000184	<0.000184	0.00311	0.000367
MW-6	11/30/17	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000211	<0.000185	0.000222	<0.000185	0.000299	<0.000185	<0.000369	0.000472	<0.000185	0.00065	<0.000185
MW-6	11/30/18	0.0000927	0.0000392 J	<0.0000120	<0.00000410	0.0000167 B J	0.00000549 J	0.00000437 J	<0.0000136	<0.0000108	0.0000179 B J	0.0000485 B J	<0.0000157	0.0000211 J	<0.0000148	0.000260 B	0.0000413 J	0.0000359 J	0.0000145 J	<0.00000902
MW-7	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.0153	<0.000183	0.0218	<0.000183	0.147	0.0367	<0.000183	0.265	0.339
MW-7	12/3/09	<0.000917	<0.000917	0.0270	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.0663	<0.000917	0.105	<0.000917	0.416	0.149	<0.000917	1.04	1.43
MW-8	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-8	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-9	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-9	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-10	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000623	<0.000184	0.000652	<0.000184	0.000526	<0.000184	<0.000184	0.00118	0.000314
MW-10	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000772	<0.000183	<0.000183	<0.000183	0.000525	<0.000183	<0.000183	0.00118	<0.000183
MW-10	12/1/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00101	<0.000183	0.000873	<0.000183	0.000358	<0.000183	<0.000183	0.000355	<0.000183
MW-10	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-10	12/4/15	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195
MW-11	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-11	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-12	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-12	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-12	12/5/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
MW-12	12/4/15	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196

Table 3

Summary of Dissolved PAH Compounds in Groundwater
Plains Pipeline LP
Denton Station SRS #2003-00338
Lea County, New Mexico
NMOCD 1RP-0234

Sample ID	Sample Date	Anthracene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Benzo(a)anthracene (mg/L)	Benzo(a)pyrene (mg/L)	Benzo(b)fluoranthene (mg/L)	Benzo(g,h,i)perylene (mg/L)	Benzo(k)fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)anthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd)pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)
		EPA and NMWQCC Human Health Standards																		
		0.001	*0.001*	*0.001*	*0.001*	*0.0002*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.03*	*0.001*	*0.001*	*0.03*	*0.03*
MW-12	11/30/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	**0.0000157 B J**	<0.00000212	<0.00000227	<0.0000136	<0.0000108	**0.0000176 B J**	**0.00000236 B J**	<0.0000157	<0.00000850	<0.0000148	**0.000140 B J**	<0.00000820	<0.0000117	<0.00000821	<0.00000902
MW-13	12/11/08	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187
MW-13	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-14	12/11/08	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186
MW-14	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-15	12/11/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-15	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-16	12/11/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-16	12/3/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-17	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0437**	<0.000922	**0.0694**	<0.000922	**0.398**	**0.113**	<0.000922	**0.888**	**1.24**
MW-17	12/3/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0444**	<0.000922	**0.0709**	<0.000922	**0.270**	**0.102**	<0.000922	**0.704**	**0.946**
MW-17	11/30/18	**0.000238**	**0.000138**	<0.0000120	<0.00000410	<0.0000116	**0.0000148 J**	**0.00000925 J**	<0.0000136	**0.0000284 J**	<0.00000396	**0.00126**	<0.0000157	**0.00103**	<0.0000148	**0.0450**	**0.00147**	**0.000112**	**0.0344**	**0.0401**
MW-17	10/23/19	**0.000380**	**0.000463**	<0.0000120	<0.00000410	**0.0000125 J**	**0.0000211 J**	**0.0000143 J**	<0.0000136	**0.0000639**	<0.00000396	**0.00186**	**0.0000518**	**0.00168**	<0.0000148	**0.0682**	**0.00223**	**0.000174**	**0.0501**	**0.0576**
WW-1	12/11/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.027**	<0.000922	**0.0757**	<0.000922	**0.382**	**0.122**	<0.000922	**0.934**	**1.38**
WW-1	12/3/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00423**	<0.000183	**0.00792**	<0.000183	**0.0355**	**0.0110**	<0.000183	**0.0772**	**0.105**

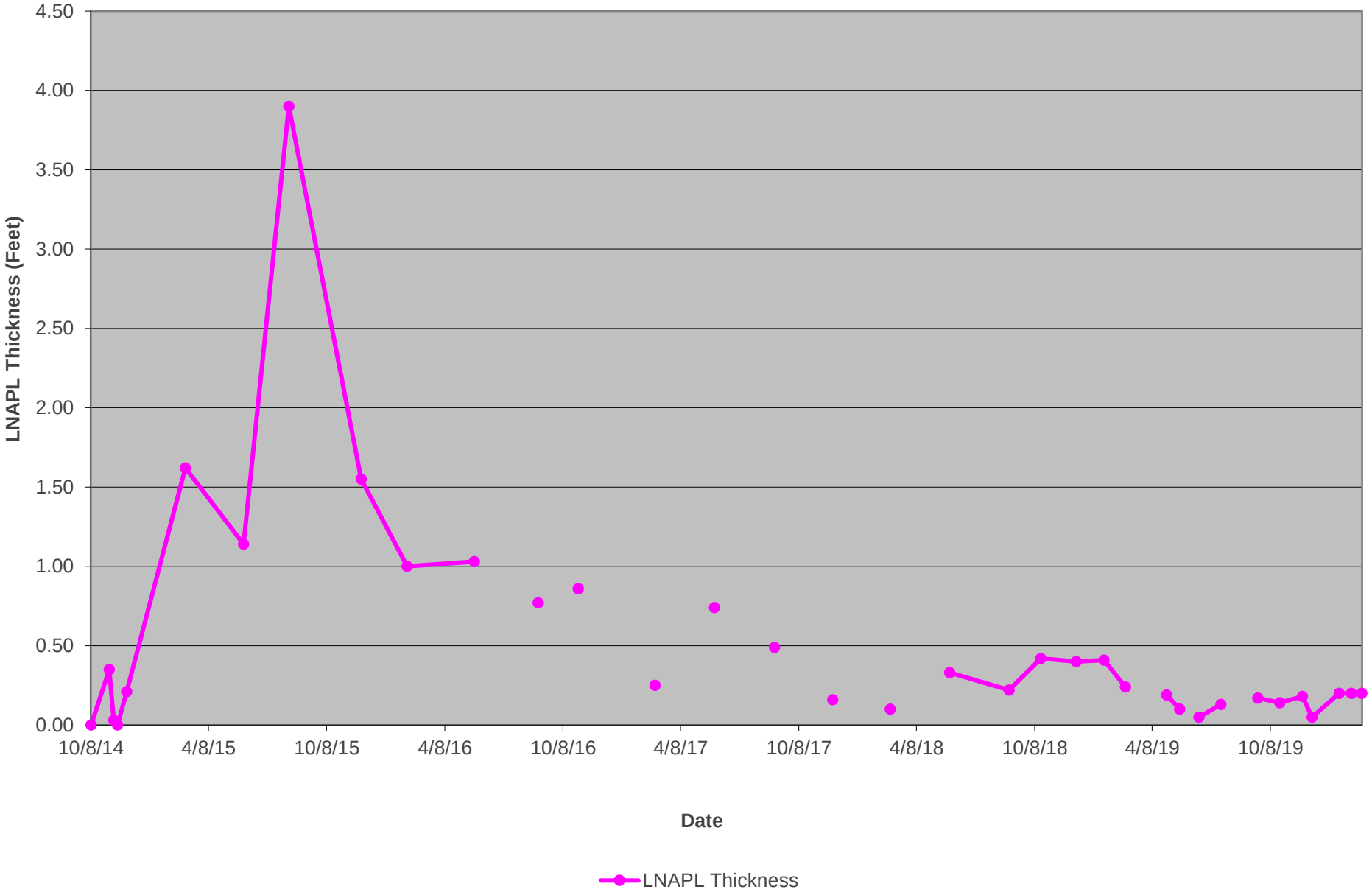
Notes:

1. Shaded cells indicate New Mexico Oil Conservation Division Regulatory Limit exceedance.
2. Bold indicates detection.
3. PAH analyses by method EPA 8270 or EPA 8270C-SIM.
4. Results shown in mg/L.
5. 2008 through 2010 results collected by NOVA.
6. 2011 through Present results collected by GHD.
7. NMWQCC Human Health Standard for combined naphthalene + 1-methylnaphthalene + 2-methylnaphthalene is 0.03 mg/L per NMAC 20.6.2.3103 A.(1)(jj).
8. Standards noted above for benzo(a)anthracene, benzo(a)pyrene and benzo(k)fluoranthene are from Table 1 in https://www.atsdr.cdc.gov/csem/csem.asp?csem=13&po=8.

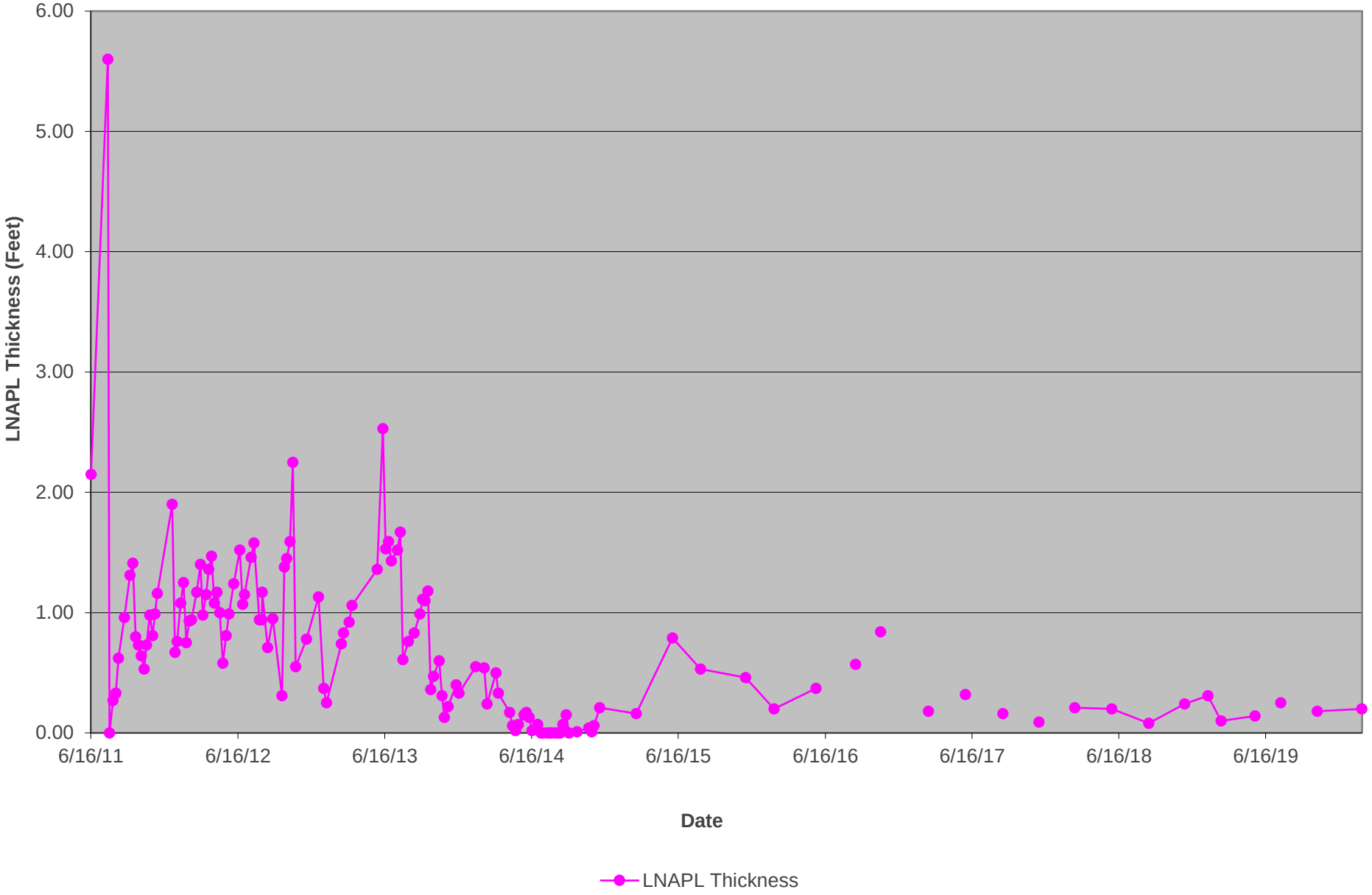
Appendices

Appendix A
Charts of Thicknesses of LNAPL in Monitor Wells vs. Time

DENTON STATION, SRS 2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
LNAPL THICKNESS vs. TIME
MW-3R

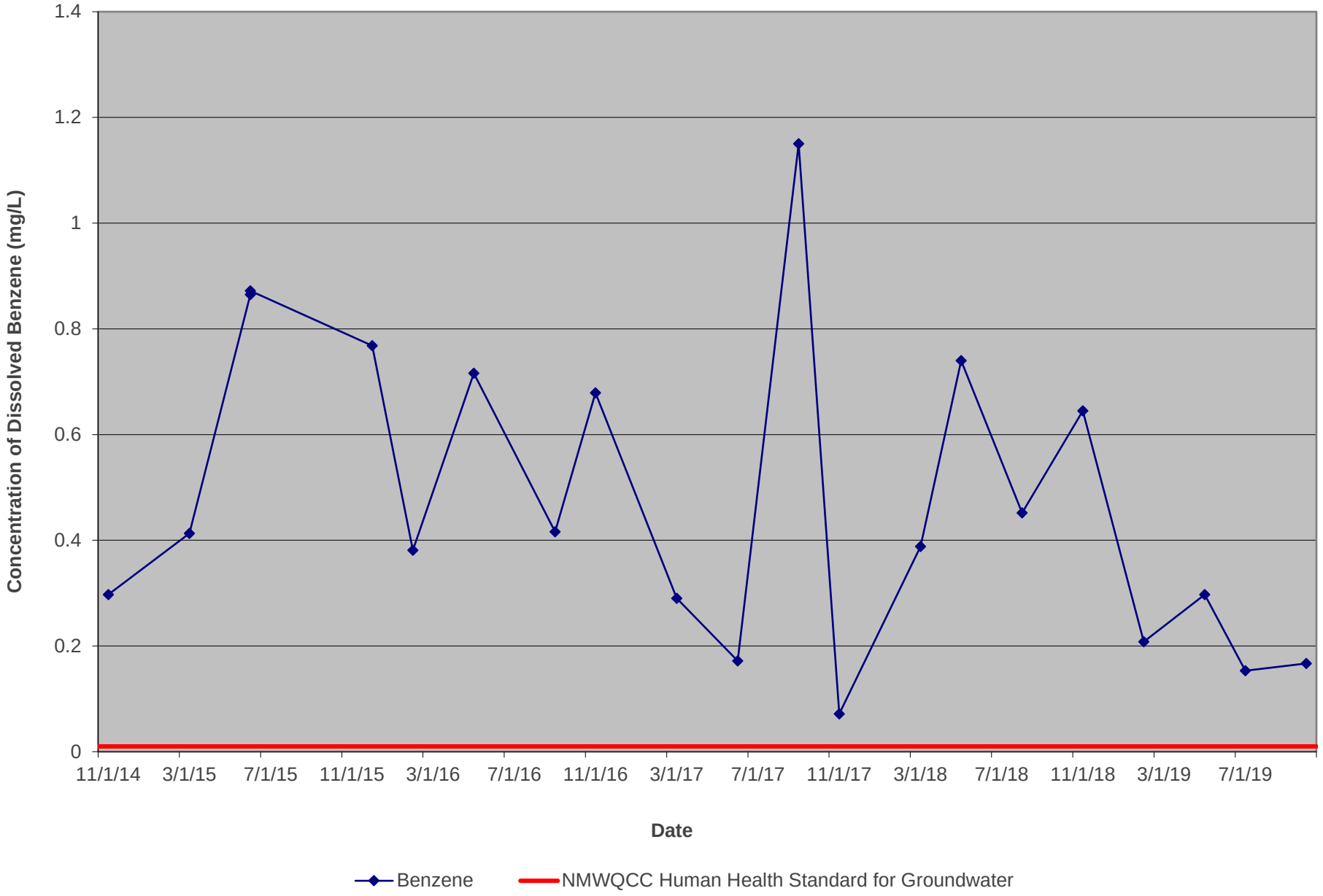


DENTON STATION, SRS 2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
LNAPL THICKNESS vs. TIME
MW-7

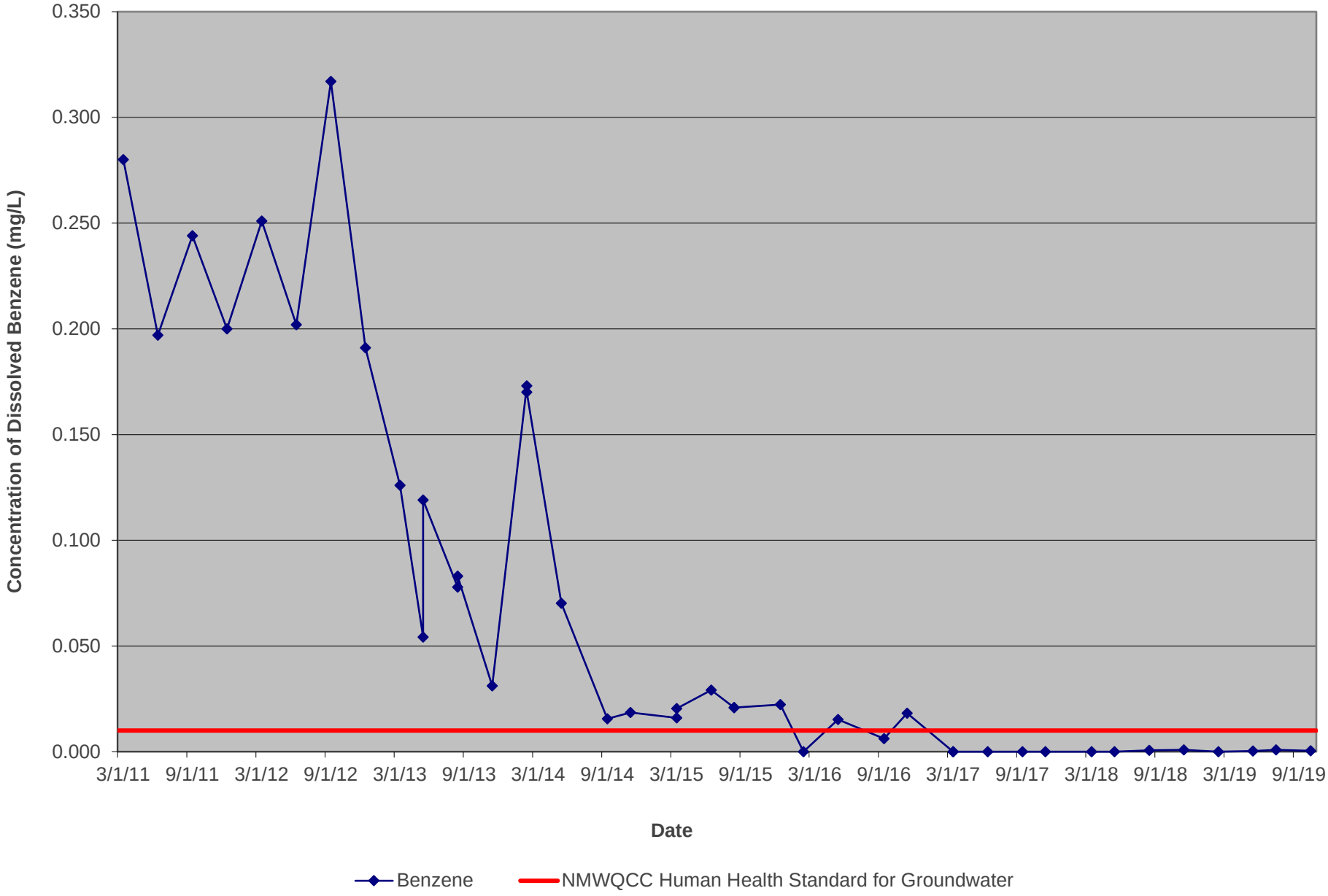


Appendix B
Charts of Concentrations of Dissolved Benzene in Monitor Wells vs. Time

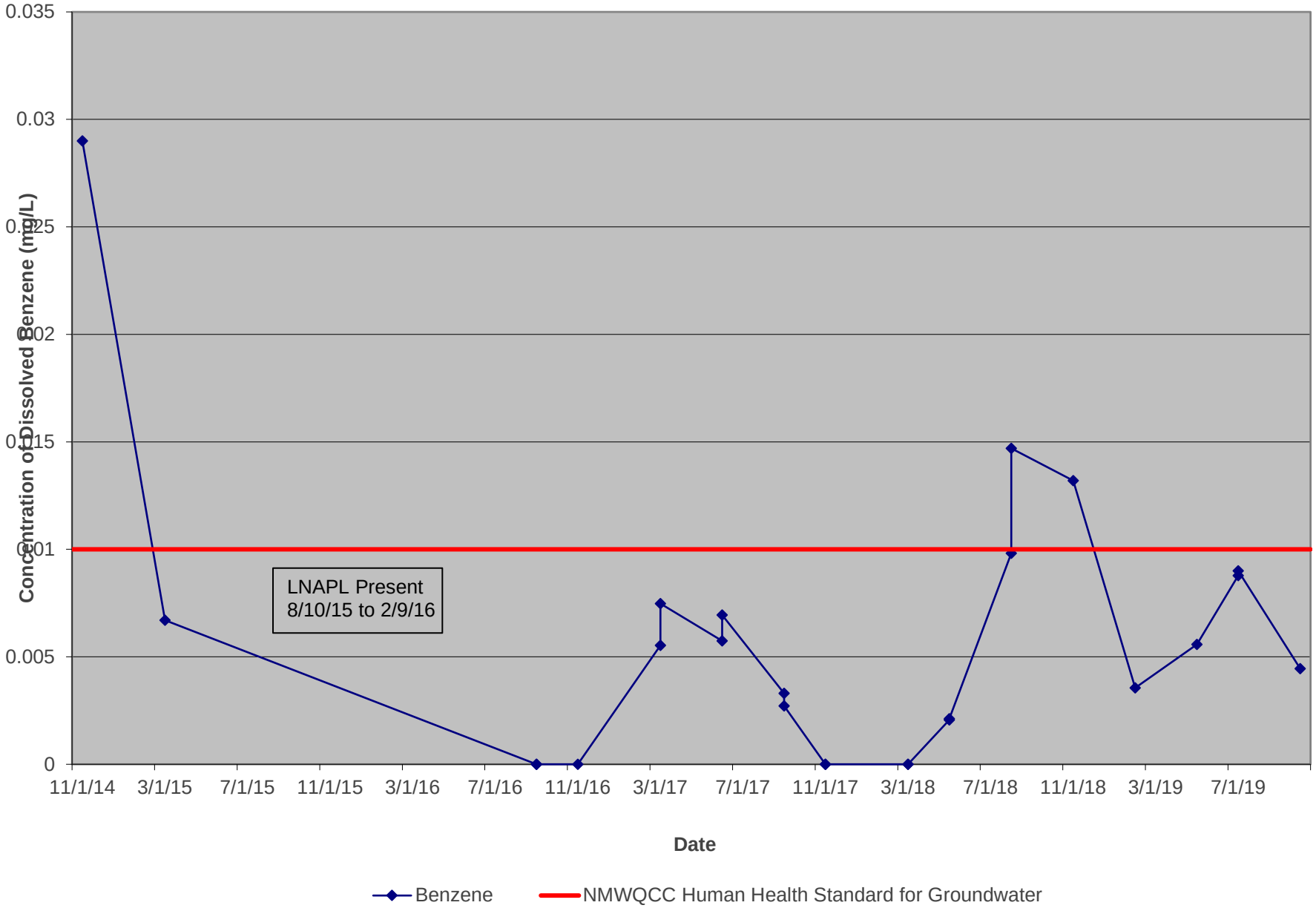
DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-1R



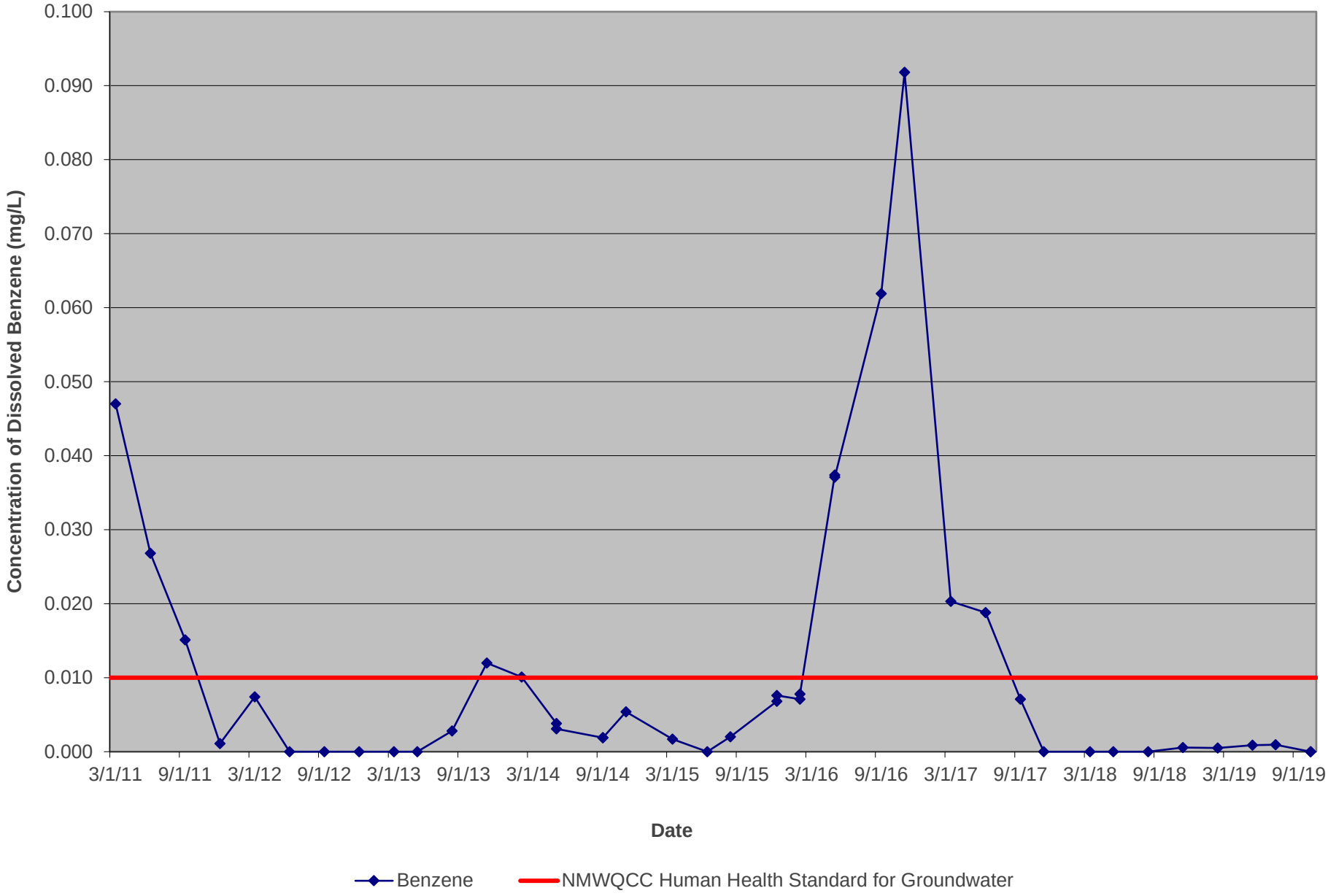
DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-4



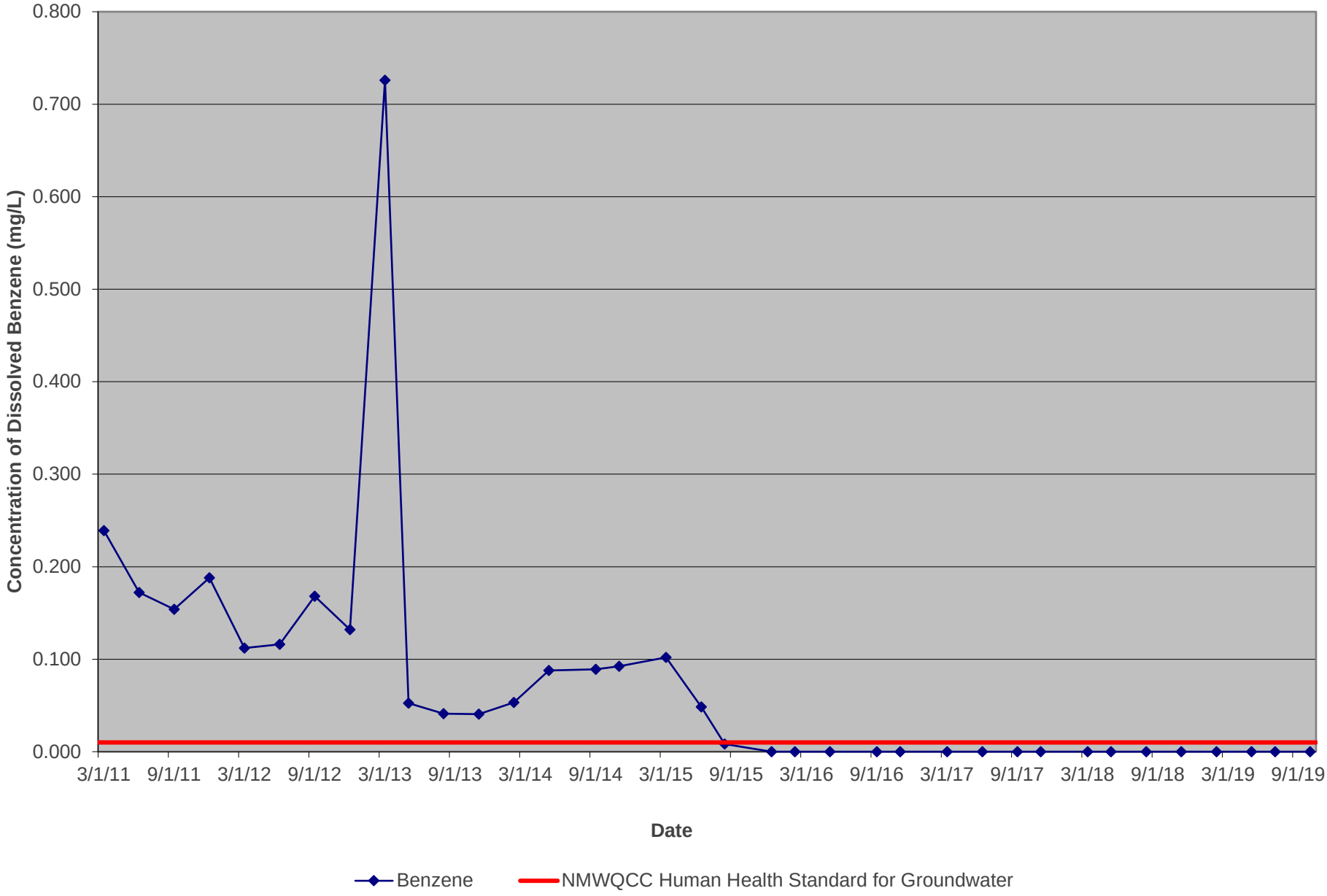
DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-5



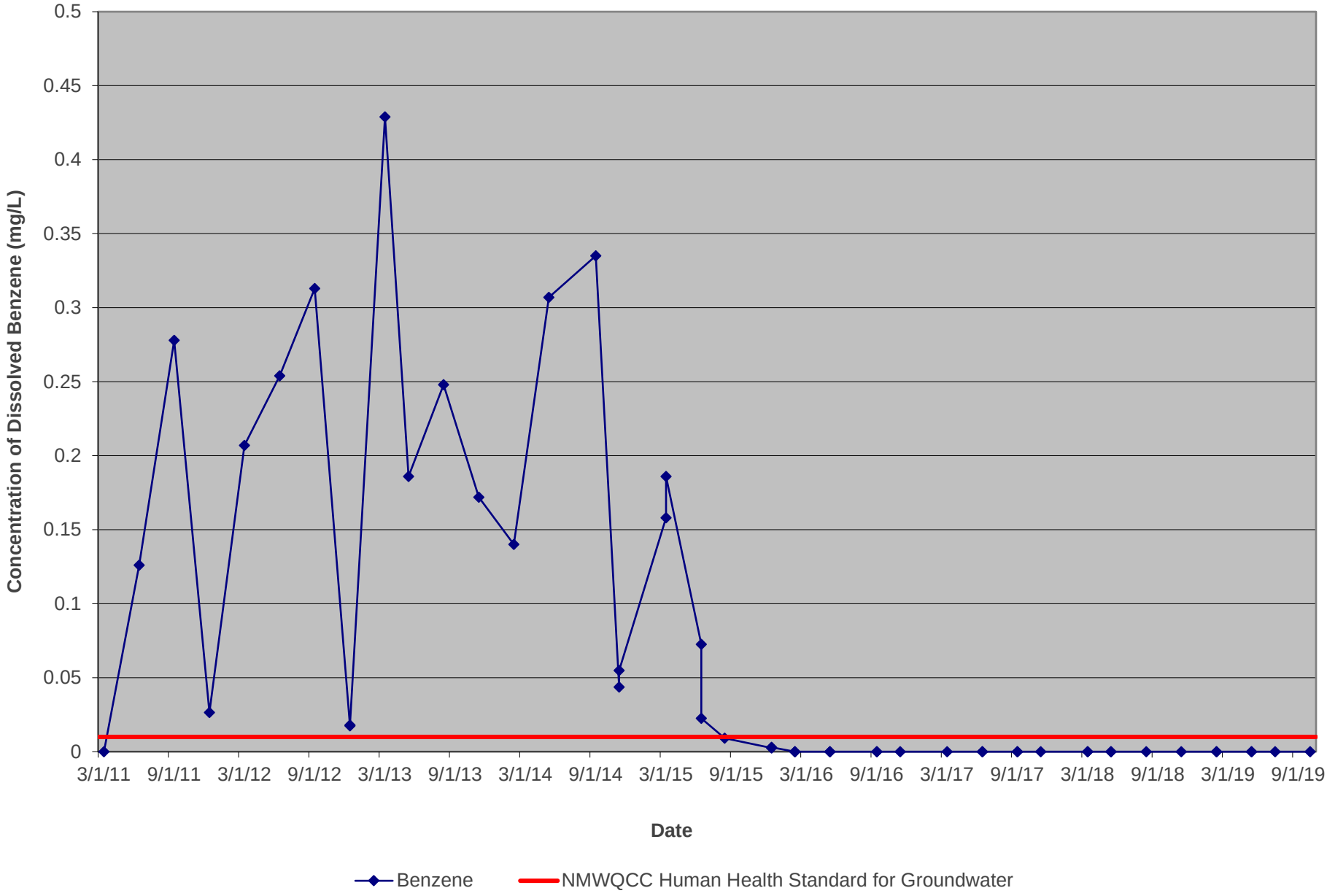
DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-6



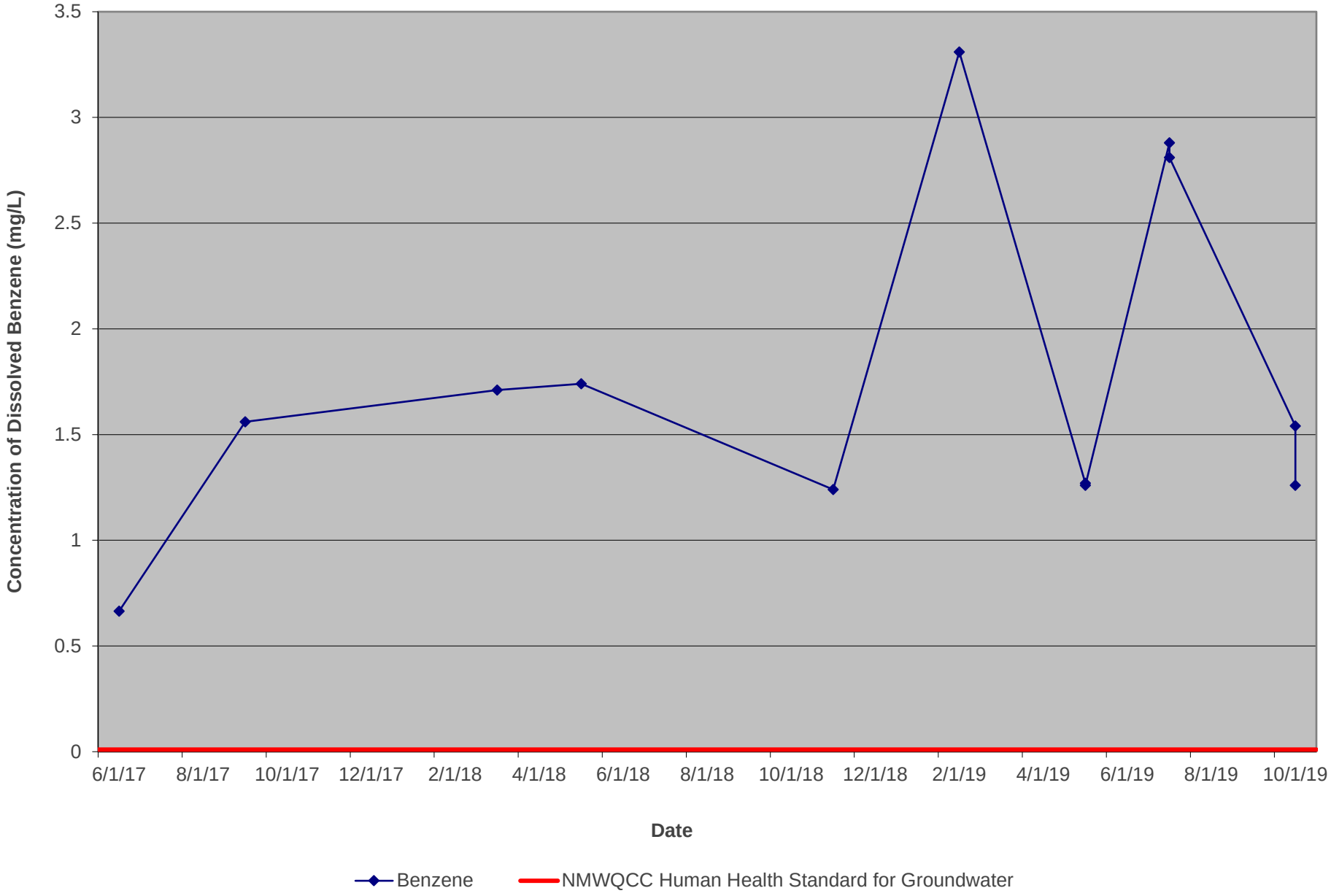
DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-10



DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-12



DENTON STATION, SRS #2003-00338
LEA COUNTY, NEW MEXICO
NMOCD 1RP-0234
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-17



Appendix C
Certified Laboratory Reports
(not included in draft or printed reports)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

March 08, 2019

Plains All American, LP - GHD

Sample Delivery Group:	L1074202
Samples Received:	02/28/2019
Project Number:	074682
Description:	Denton Station- Lea County, New Mexico
Site:	SRS#:2003-00338
Report To:	John Schnable 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

MW-8-022619 L1074202-01 GW

Collected by | Collected date/time 02/26/19 09:55 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 00:25	03/01/19 00:25	BMB	Mt. Juliet, TN

MW-6-022619 L1074202-02 GW

Collected by | Collected date/time 02/26/19 10:35 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 00:49	03/01/19 00:49	BMB	Mt. Juliet, TN

MW-5-022619 L1074202-03 GW

Collected by | Collected date/time 02/26/19 10:55 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 01:13	03/01/19 01:13	BMB	Mt. Juliet, TN

MW-17-022619 L1074202-04 GW

Collected by | Collected date/time 02/26/19 11:35 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 01:37	03/01/19 01:37	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	50	03/07/19 16:34	03/07/19 16:34	JAH	Mt. Juliet, TN

MW-10-022619 L1074202-05 GW

Collected by | Collected date/time 02/26/19 11:55 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 02:01	03/01/19 02:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 13:11	03/07/19 13:11	JAH	Mt. Juliet, TN

MW-9-022619 L1074202-06 GW

Collected by | Collected date/time 02/26/19 12:25 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 02:25	03/01/19 02:25	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 13:31	03/07/19 13:31	JAH	Mt. Juliet, TN

MW-1R-022619 L1074202-07 GW

Collected by | Collected date/time 02/26/19 12:40 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 02:49	03/01/19 02:49	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	10	03/07/19 16:55	03/07/19 16:55	JAH	Mt. Juliet, TN

TRIP BLANK L1074202-08 GW

Collected by | Collected date/time 02/26/19 00:00 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	02/28/19 23:37	02/28/19 23:37	BMB	Mt. Juliet, TN

MW-4-022619 L1074202-09 GW

Collected by | Collected date/time 02/26/19 13:05 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 03:13	03/01/19 03:13	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 14:12	03/07/19 14:12	JAH	Mt. Juliet, TN

MW-2R-022619 L1074202-10 GW

Collected by | Collected date/time 02/26/19 13:40 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 03:37	03/01/19 03:37	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 15:33	03/07/19 15:33	JAH	Mt. Juliet, TN

MW-12-022619 L1074202-11 GW

Collected by | Collected date/time 02/26/19 14:00 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 04:01	03/01/19 04:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 15:54	03/07/19 15:54	JAH	Mt. Juliet, TN

MW-13-022619 L1074202-12 GW

Collected by | Collected date/time 02/26/19 14:20 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 04:25	03/01/19 04:25	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1246242	1	03/07/19 16:14	03/07/19 16:14	JAH	Mt. Juliet, TN

MW-14-022619 L1074202-13 GW

Collected by | Collected date/time 02/26/19 14:40 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 04:49	03/01/19 04:49	BMB	Mt. Juliet, TN

MW-15-022619 L1074202-14 GW

Collected by | Collected date/time 02/26/19 15:00 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 05:13	03/01/19 05:13	BMB	Mt. Juliet, TN

DUP-01-022619 L1074202-15 GW

Collected by | Collected date/time 02/26/19 00:00 | Received date/time 02/28/19 08:45

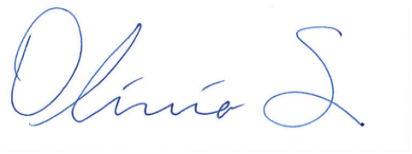
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 05:37	03/01/19 05:37	BMB	Mt. Juliet, TN

DUP-02-022619 L1074202-16 GW

Collected by | Collected date/time 02/26/19 00:00 | Received date/time 02/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1243720	1	03/01/19 06:00	03/01/19 06:00	BMB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Olivia Studebaker
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Olivia Studebaker
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2019 15:00
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1074202-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1243720 and WG1246242

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2019 15:00
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1074202-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1243720 and WG1246242

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2019 15:00
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1074202-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1243720 and WG1246242

ER #[1]	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2019 00:25	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 00:25	WG1243720
Ethylbenzene	0.000177	B J	0.000160	0.000500	0.000500	1	03/01/2019 00:25	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 00:25	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.5*				*79.0-125*		*03/01/2019 00:25*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000490	J	0.000190	0.000500	0.000500	1	03/01/2019 00:49	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 00:49	WG1243720
Ethylbenzene	0.00370		0.000160	0.000500	0.000500	1	03/01/2019 00:49	WG1243720
Total Xylene	0.00603		0.000510	0.00150	0.00150	1	03/01/2019 00:49	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.6*				*79.0-125*		*03/01/2019 00:49*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00355		0.000190	0.000500	0.000500	1	03/01/2019 01:13	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 01:13	WG1243720
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2019 01:13	WG1243720
Total Xylene	0.00368		0.000510	0.00150	0.00150	1	03/01/2019 01:13	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.1*				*79.0-125*		*03/01/2019 01:13*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	3.31		0.00950	0.000500	0.0250	50	03/07/2019 16:34	WG1246242
Toluene	0.0105		0.000412	0.00100	0.00100	1	03/01/2019 01:37	WG1243720
Ethylbenzene	0.230		0.000160	0.000500	0.000500	1	03/01/2019 01:37	WG1243720
Total Xylene	0.234		0.000510	0.00150	0.00150	1	03/01/2019 01:37	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*03/01/2019 01:37*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*98.9*				*79.0-125*		*03/07/2019 16:34*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/07/2019 13:11	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 02:01	WG1243720
Ethylbenzene	0.000763	B	0.000160	0.000500	0.000500	1	03/01/2019 02:01	WG1243720
Total Xylene	0.000675	J	0.000510	0.00150	0.00150	1	03/01/2019 02:01	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.7*				*79.0-125*		*03/01/2019 02:01*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*99.2*				*79.0-125*		*03/07/2019 13:11*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/07/2019 13:31	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 02:25	WG1243720
Ethylbenzene	0.000436	B J	0.000160	0.000500	0.000500	1	03/01/2019 02:25	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 02:25	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.1*				*79.0-125*		*03/01/2019 02:25*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*98.8*				*79.0-125*		*03/07/2019 13:31*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.208		0.00190	0.000500	0.00500	10	03/07/2019 16:55	WG1246242
Toluene	0.00300		0.000412	0.00100	0.00100	1	03/01/2019 02:49	WG1243720
Ethylbenzene	0.00664		0.000160	0.000500	0.000500	1	03/01/2019 02:49	WG1243720
Total Xylene	0.0249		0.000510	0.00150	0.00150	1	03/01/2019 02:49	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*03/01/2019 02:49*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*99.5*				*79.0-125*		*03/07/2019 16:55*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	02/28/2019 23:37	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	02/28/2019 23:37	WG1243720
Ethylbenzene	0.000385	B J	0.000160	0.000500	0.000500	1	02/28/2019 23:37	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	02/28/2019 23:37	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.6*				*79.0-125*		*02/28/2019 23:37*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/07/2019 14:12	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 03:13	WG1243720
Ethylbenzene	0.000328	B J	0.000160	0.000500	0.000500	1	03/01/2019 03:13	WG1243720
Total Xylene	0.00359		0.000510	0.00150	0.00150	1	03/01/2019 03:13	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.6*				*79.0-125*		*03/01/2019 03:13*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*98.4*				*79.0-125*		*03/07/2019 14:12*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000844		0.000190	0.000500	0.000500	1	03/07/2019 15:33	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 03:37	WG1243720
Ethylbenzene	0.000218	B J	0.000160	0.000500	0.000500	1	03/01/2019 03:37	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 03:37	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.9*				*79.0-125*		*03/01/2019 03:37*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*03/07/2019 15:33*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/07/2019 15:54	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 04:01	WG1243720
Ethylbenzene	0.000269	B J	0.000160	0.000500	0.000500	1	03/01/2019 04:01	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 04:01	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.3*				*79.0-125*		*03/01/2019 04:01*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*99.0*				*79.0-125*		*03/07/2019 15:54*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/07/2019 16:14	WG1246242
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 04:25	WG1243720
Ethylbenzene	0.000168	B J	0.000160	0.000500	0.000500	1	03/01/2019 04:25	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 04:25	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.5*				*79.0-125*		*03/01/2019 04:25*	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*03/07/2019 16:14*	WG1246242

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2019 04:49	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 04:49	WG1243720
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2019 04:49	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 04:49	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.4*				*79.0-125*		*03/01/2019 04:49*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2019 05:13	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 05:13	WG1243720
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2019 05:13	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 05:13	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.4*				*79.0-125*		*03/01/2019 05:13*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2019 05:37	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 05:37	WG1243720
Ethylbenzene	0.000162	B J	0.000160	0.000500	0.000500	1	03/01/2019 05:37	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 05:37	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.1*				*79.0-125*		*03/01/2019 05:37*	WG1243720

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2019 06:00	WG1243720
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2019 06:00	WG1243720
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2019 06:00	WG1243720
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2019 06:00	WG1243720
(S) a,a,a-Trifluorotoluene(PID)	*97.6*				*79.0-125*		*03/01/2019 06:00*	WG1243720

Method Blank (MB)

(MB) R3389294-2 02/28/19 22:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	0.000323	J	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*97.8*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3389294-1 02/28/19 21:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0564	113	77.0-122	
Toluene	0.0500	0.0519	104	80.0-121	
Ethylbenzene	0.0500	0.0543	109	80.0-123	
Total Xylene	0.150	0.159	106	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*100*	*79.0-125*	

Method Blank (MB)

(MB) R3389701-2 03/07/19 12:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
(S) a,a,a-Trifluorotoluene(PID)	*99.4*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3389701-1 03/07/19 12:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0492	98.4	77.0-122	
(S) a,a,a-Trifluorotoluene(PID)			*99.8*	*79.0-125*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

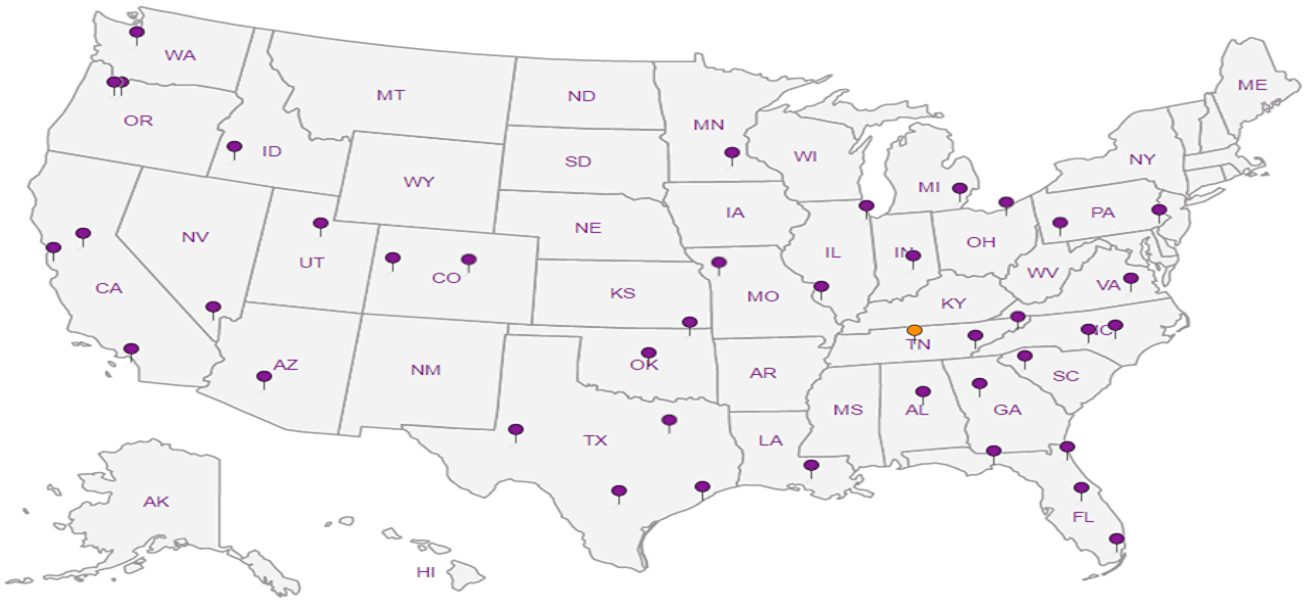
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: John Schnable

Email To: christopher.knight@ghd.com, john.schnable@ghd.com

Project Description: Denton Station- Lea County, New Mexico

City/State Collected:

Phone: 432-686-0086
Fax:

Client Project # 074682

Lab Project # PLAINSGHD-074682

Collected by (print):

Site/Facility ID # SRS#:2003-00338

P.O. #

Collected by (signature):
Immediately Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

BTEX 40ml Amb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs		Remarks	Sample # (lab only)
MW-8-022619	Grab	GW	DTW	2/26/19	0955	3	3		-01
MW-6-022619	Grab	GW		2/26/19	1035	3	3		02
MW-5-022619	Grab	GW		2/26/19	1055	3	3		03
MW-17-022619	Grab	GW		2/26/19	1135	3	3		04
MW-10-022619	Grab	GW		2/26/19	1155	3	3		05
MW-9-022619	Grab	GW		2/26/19	1225	3	3		06
MW-12-022619	Grab	GW		2/26/19	1240	3	3		07
TRIP BLANK		GW				1			08
MW-4-022619	Grab	GW		2/26/19	1305	3	3		09
MW-22-022619	Grab	GW		2/26/19	1340	3	3		10

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1074202

E095

Acctnum: PLAINSGHD
Template: T139740
Prelogin: P695140
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # Fedex 4430 3423 6421

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	2/27/19	0900			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.6 +0.2 °C	Bottles Received: 45
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/28/19	Time: 8:45

Hold: Condition: NCF / OK

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: **John Schnable**

Email To: **christopher.knight@ghd.com, john.schnable@ghd.com**

Project Description: **Denton Station- Lea County, New Mexico**

City/State Collected:

Phone: **432-686-0086**
Fax:

Client Project # **074682**

Lab Project # **PLAINSGHD-074682**

Collected by (print):

Site/Facility ID # **SRS#:2003-00338**

P.O. #

Collected by (signature):
Immediately
Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1074202

Table #

Acctnum: **PLAINSGHD**
Template: **T139740**
Prelogin: **P695140**
TSR: **134 - Mark W. Beasley**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40ml Amb-HCl	Remarks	Sample # (lab only)
MW-12-022619	Grab	GW	DTW	2/26/19	1400	3	3		-11
MW-13-022619	Grab	GW	DTW	2/26/19	1420	3	3		12
MW-14-022619	Grab	GW	DTW	2/26/19	1440	3	3		13
MW-15-022619	Grab	GW	DTW	2/26/19	1500	3	3		14
Dup-01-022619	Grab	GW	DTW	2/26/19	—	3	3		15
Dup-02-022619	Grab	GW	DTW	2/26/19	—	3	3		16
		GW							
		GW							
		GW							
		GW							

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

RAD SCREEN: <0.5 mR/hr

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
JB	2/27/19	0900		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.6 +0 °C PN AS	Bottles Received: 45	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/28/19	Time: 8:45	Hold:	Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 05, 2019

Plains All American, LP - GHD

Sample Delivery Group:	L1102353
Samples Received:	05/24/2019
Project Number:	074682
Description:	Denton Station- Lea County, New Mexico
Site:	SRS#:2003-00338
Report To:	James Ornelas 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

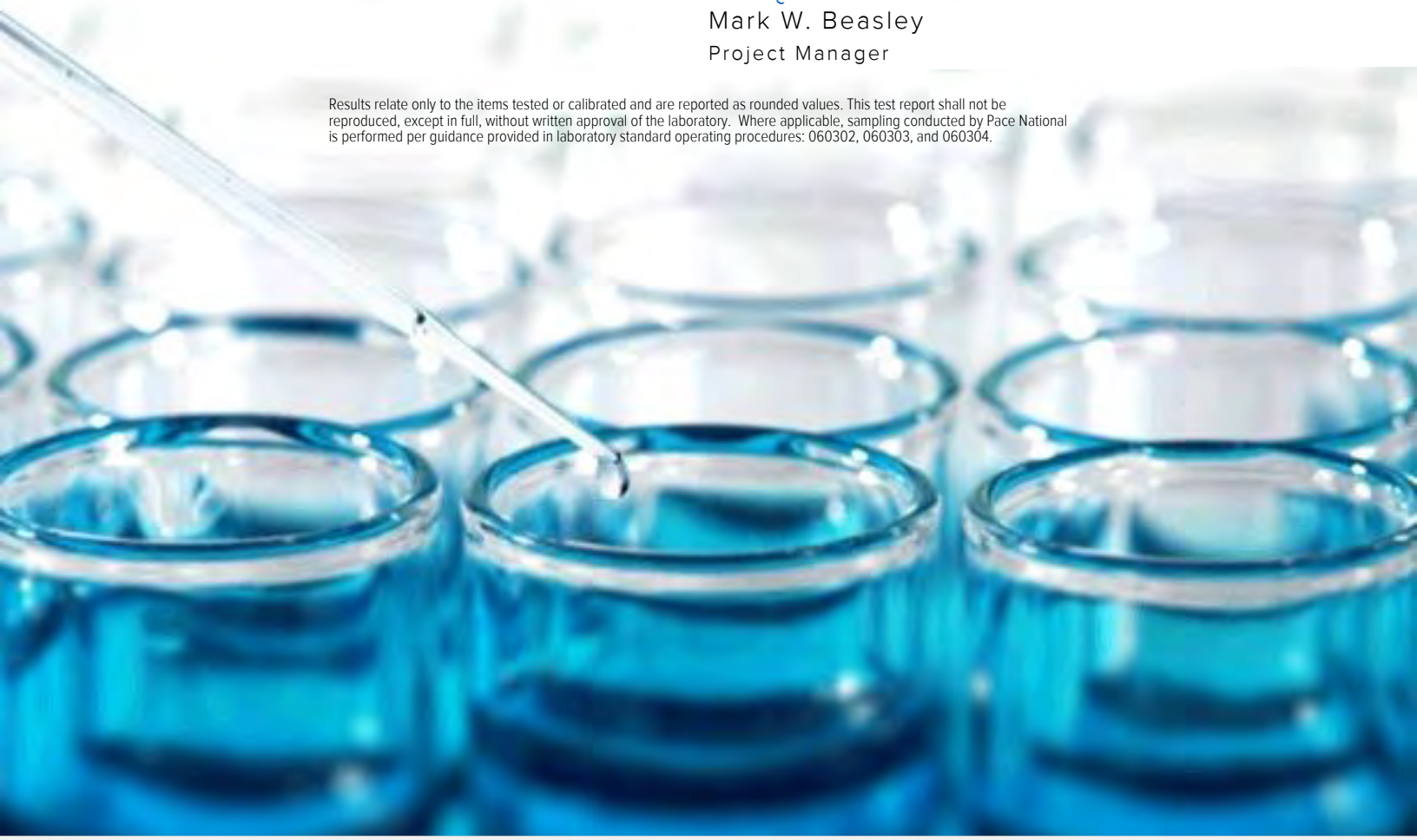


TABLE OF CONTENTS

MW-8-052119 L1102353-01 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 11:15 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 01:21	05/30/19 01:21	ACE	Mt. Juliet, TN

MW-6-052119 L1102353-02 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 11:15 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 01:42	05/30/19 01:42	ACE	Mt. Juliet, TN

MW-5--052119 L1102353-03 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 12:25 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 02:03	05/30/19 02:03	ACE	Mt. Juliet, TN

MW-17-052119 L1102353-04 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 13:15 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	20	05/30/19 02:23	05/30/19 02:23	ACE	Mt. Juliet, TN

MW-10-052119 L1102353-05 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 13:35 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 02:44	05/30/19 02:44	ACE	Mt. Juliet, TN

MW-9-052119 L1102353-06 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 14:10 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 03:04	05/30/19 03:04	ACE	Mt. Juliet, TN

MW-1R-052119 L1102353-07 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 14:35 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	5	05/30/19 03:25	05/30/19 03:25	ACE	Mt. Juliet, TN

MW-4-052119 L1102353-08 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 15:05 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 03:46	05/30/19 03:46	ACE	Mt. Juliet, TN

MW-2R-052119 L1102353-09 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 16:10 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 04:06	05/30/19 04:06	ACE	Mt. Juliet, TN

MW-12-052119 L1102353-10 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 16:20 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 04:27	05/30/19 04:27	ACE	Mt. Juliet, TN

MW-13-052119 L1102353-11 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 16:30 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 04:47	05/30/19 04:47	ACE	Mt. Juliet, TN

MW-14-052119 L1102353-12 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 16:40 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 05:08	05/30/19 05:08	ACE	Mt. Juliet, TN

MW-15-052119 L1102353-13 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 16:50 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 05:29	05/30/19 05:29	ACE	Mt. Juliet, TN

DUP-1-052119 L1102353-19 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 00:00 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 05:49	05/30/19 05:49	ACE	Mt. Juliet, TN

DUP-2-052119 L1102353-20 GW

Collected by: Justin Nixon | Collected date/time: 05/21/19 00:00 | Received date/time: 05/24/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1288289	1	05/30/19 06:10	05/30/19 06:10	ACE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1290327	10	06/04/19 14:37	06/04/19 14:37	JAH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 06/05/2019 09:20
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1102353-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1288289 and WG1290327

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 06/05/2019 09:20
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1102353-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1288289 and WG1290327

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 06/05/2019 09:20
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1102353-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1288289 and WG1290327

ER #[1]	Description
1	8021B WG1288289 Total Xylene L1102353-03, 07 and 08: Concentration in the Blank >MQL.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 01:21	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 01:21	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 01:21	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 01:21	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*95.5*				*79.0-125*		*05/30/2019 01:21*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000883		0.000190	0.000500	0.000500	1	05/30/2019 01:42	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 01:42	WG1288289
Ethylbenzene	0.00160		0.000160	0.000500	0.000500	1	05/30/2019 01:42	WG1288289
Total Xylene	0.00362		0.000510	0.00150	0.00150	1	05/30/2019 01:42	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.3*				*79.0-125*		*05/30/2019 01:42*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00558		0.000190	0.000500	0.000500	1	05/30/2019 02:03	WG1288289
Toluene	0.00117		0.000412	0.00100	0.00100	1	05/30/2019 02:03	WG1288289
Ethylbenzene	0.00855		0.000160	0.000500	0.000500	1	05/30/2019 02:03	WG1288289
Total Xylene	0.00273	B	0.000510	0.00150	0.00150	1	05/30/2019 02:03	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.2*				*79.0-125*		*05/30/2019 02:03*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	1.27		0.00380	0.000500	0.0100	20	05/30/2019 02:23	WG1288289
Toluene	0.0219		0.00824	0.00100	0.0200	20	05/30/2019 02:23	WG1288289
Ethylbenzene	0.168		0.00320	0.000500	0.0100	20	05/30/2019 02:23	WG1288289
Total Xylene	0.258		0.0102	0.00150	0.0300	20	05/30/2019 02:23	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*92.5*				*79.0-125*		*05/30/2019 02:23*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 02:44	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 02:44	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 02:44	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 02:44	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*93.5*				*79.0-125*		*05/30/2019 02:44*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 03:04	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 03:04	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 03:04	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 03:04	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*96.3*				*79.0-125*		*05/30/2019 03:04*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.297		0.000950	0.000500	0.00250	5	05/30/2019 03:25	WG1288289
Toluene	U		0.00206	0.00100	0.00500	5	05/30/2019 03:25	WG1288289
Ethylbenzene	0.00248	J	0.000800	0.000500	0.00250	5	05/30/2019 03:25	WG1288289
Total Xylene	0.00851	B	0.00255	0.00150	0.00750	5	05/30/2019 03:25	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.0*				*79.0-125*		*05/30/2019 03:25*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000286	J	0.000190	0.000500	0.000500	1	05/30/2019 03:46	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 03:46	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 03:46	WG1288289
Total Xylene	0.00272	B	0.000510	0.00150	0.00150	1	05/30/2019 03:46	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.7*				*79.0-125*		*05/30/2019 03:46*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 04:06	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 04:06	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 04:06	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 04:06	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.6*				*79.0-125*		*05/30/2019 04:06*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 04:27	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 04:27	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 04:27	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 04:27	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*93.9*				*79.0-125*		*05/30/2019 04:27*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 04:47	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 04:47	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 04:47	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 04:47	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.6*				*79.0-125*		*05/30/2019 04:47*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 05:08	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 05:08	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 05:08	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 05:08	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*94.9*				*79.0-125*		*05/30/2019 05:08*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 05:29	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 05:29	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 05:29	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 05:29	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*95.7*				*79.0-125*		*05/30/2019 05:29*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2019 05:49	WG1288289
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2019 05:49	WG1288289
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2019 05:49	WG1288289
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2019 05:49	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*96.7*				*79.0-125*		*05/30/2019 05:49*	WG1288289

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	1.26		0.00190	0.000500	0.00500	10	06/04/2019 14:37	WG1290327
Toluene	0.0229		0.000412	0.00100	0.00100	1	05/30/2019 06:10	WG1288289
Ethylbenzene	0.164		0.000160	0.000500	0.000500	1	05/30/2019 06:10	WG1288289
Total Xylene	0.253		0.000510	0.00150	0.00150	1	05/30/2019 06:10	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*82.7*				*79.0-125*		*05/30/2019 06:10*	WG1288289
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*06/04/2019 14:37*	WG1290327

Method Blank (MB)

(MB) R3417366-2 05/30/19 01:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*95.5*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3417366-1 05/30/19 00:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0475	94.9	77.0-122	
Toluene	0.0500	0.0470	94.0	80.0-121	
Ethylbenzene	0.0500	0.0480	96.0	80.0-123	
Total Xylene	0.150	0.150	99.9	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*95.9*	*79.0-125*	

L1102353-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1102353-01 05/30/19 01:21 • (MS) R3417366-3 05/30/19 08:40 • (MSD) R3417366-4 05/30/19 09:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	U	0.0494	0.0452	98.7	90.4	1	10.0-160			8.81	21
Toluene	0.0500	U	0.0560	0.0471	112	94.2	1	12.0-148			17.2	21
Ethylbenzene	0.0500	U	0.0494	0.0459	98.9	91.8	1	22.0-149			7.42	21
Total Xylene	0.150	U	0.158	0.143	105	95.3	1	13.0-155			9.97	21
(S) a,a,a-Trifluorotoluene(PID)					*94.7*	*93.8*		*79.0-125*				

Method Blank (MB)

(MB) R3417675-5 06/04/19 11:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3417675-1 06/04/19 09:52 • (LCSD) R3417675-2 06/04/19 10:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0443	0.0488	88.7	97.7	77.0-122			9.65	20
(S) a,a,a-Trifluorotoluene(PID)				*102*	*101*	*79.0-125*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

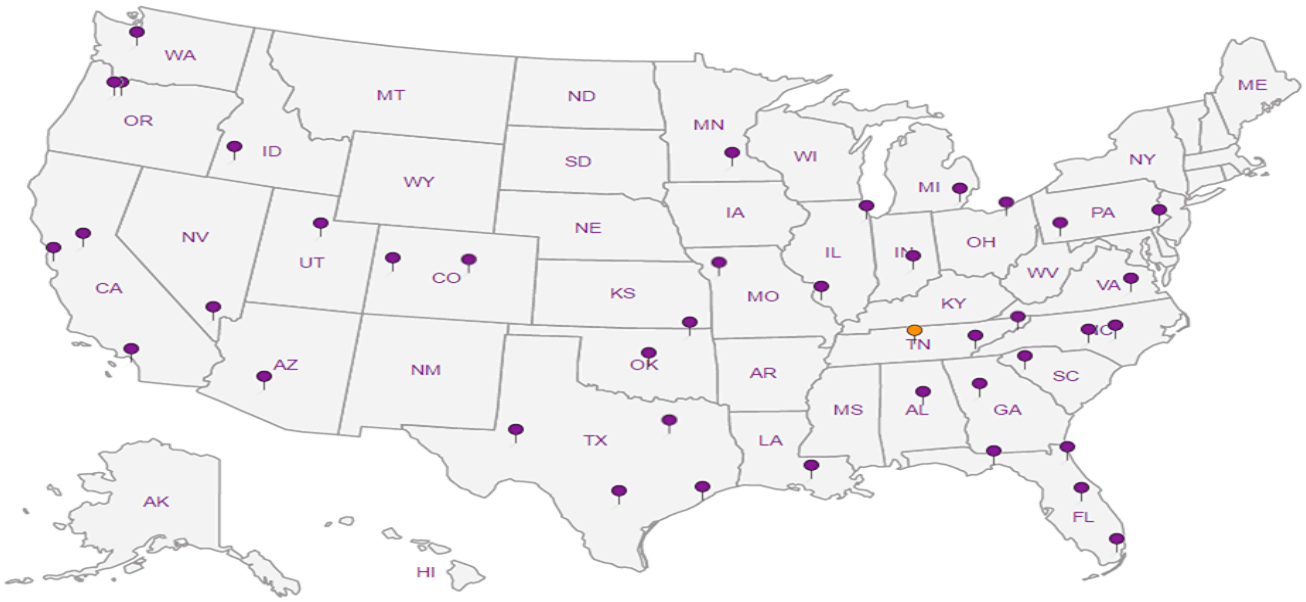
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: John Schnable

Email To: christopher.knight@ghd.com, john.schnable@ghd.com

Project Description: Denton Station- Lea County, New Mexico

City/State Collected:

Phone: 432-686-0086
Fax:

Client Project # 074682

Lab Project # PLAINSGHD-074682

Collected by (print): Justin Nixon

Site/Facility ID # SRS#:2003-00338

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40ml Amb-HCl	Remarks	Sample # (lab only)
MW-13-052119	G	GW		5-21-19	1630	3	X		-11
MW-14-052119		GW			1640		X		-12
MW-15-052119		GW			1650		X		-13
Dup-1-052119		GW			-		X		-14
Dup-2-052119		GW			-		X		~~-15~~ PW
		GW							~~-16~~ PW
		GW							
TRIP BLANK	G	GW		5-21-19	-		X		

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1102353

Table #

Acctnum: PLAINSGHD

Template: T139740

Prelogin: P708910

TSR: 134 - Mark W. Beasley

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Report SDL's
Flag estimated concentrations

RAD SCREEN: <0.5 mR/hr

Temp _____ Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	5-23-19	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: +1 °C 1.4 1.5 Bottles Received: 45	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: TOAS 5/24/19 Time: 0830	Hold: Condition: NCF / OK

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: John Schnable

Email To: christopher.knight@ghd.com, john.schnable@ghd.com

Project Description: Denton Station- Lea County, New Mexico

City/State Collected:

Phone: 432-686-0086
Fax:

Client Project # 074682

Lab Project # PLAINSGHD-074682

Collected by (print): Justin Nixon

Site/Facility ID # SRS#:2003-00338

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1102353
B061

Acctnum: PLAINSGHD
Template: T139740
Prelogin: P708910
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
mw8-052119	6	GW		5-21-19	1115	3	X		-01
mw-6-052119		GW			1155				-02
mw5-052119		GW			1225				-03
mw-17-052119		GW			1315				-04
mw-10-052119		GW			1335				-05
mw-9-052119		GW			1410				-06
mw-11R-052119		GW			1435				-07
mw-4-052119		GW			1505				-08
mw-2R-052119		GW			1610				-09
mw-12-052119		GW			1620				-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: report SPLP
flag estimated concentrations
RAD SCREEN: <0.5 mR/hr

Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 488286312344/2311

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	5-23-19	1400	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.1 °C 1.4 1.5 Bottles Received: 43

Date: TOA 5/24/19 Time: 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Troy Dunlap

Pace Analytical®
National Center for Testing & Innovation

Login #: L1102353	Client: PLAINSGHD	Date: 05/24/19	Evaluated by: PN

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courier
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: 1.) Did not receive DUP-2. Received 6 containers for DUP-1. Should have only received 3 containers for DUP-1. So it looks like the client labeled DUP-2 sample as DUP-1
2.) Did not receive Trip Blank.

Client informed by:		Call		Email		Voice Mail		Date: 5/24/19	Time: 1830
TSR Initials: MB	Client Contact:								

Login Instructions:

1) Log Dup-01 as Dup-2

2) Client notified

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 06, 2019

Plains All American, LP - GHD

Sample Delivery Group:	L1123080
Samples Received:	07/27/2019
Project Number:	074682
Description:	Denton Station- Lea County, New Mexico
Site:	SRS#:2003-00338
Report To:	James Ornelas 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

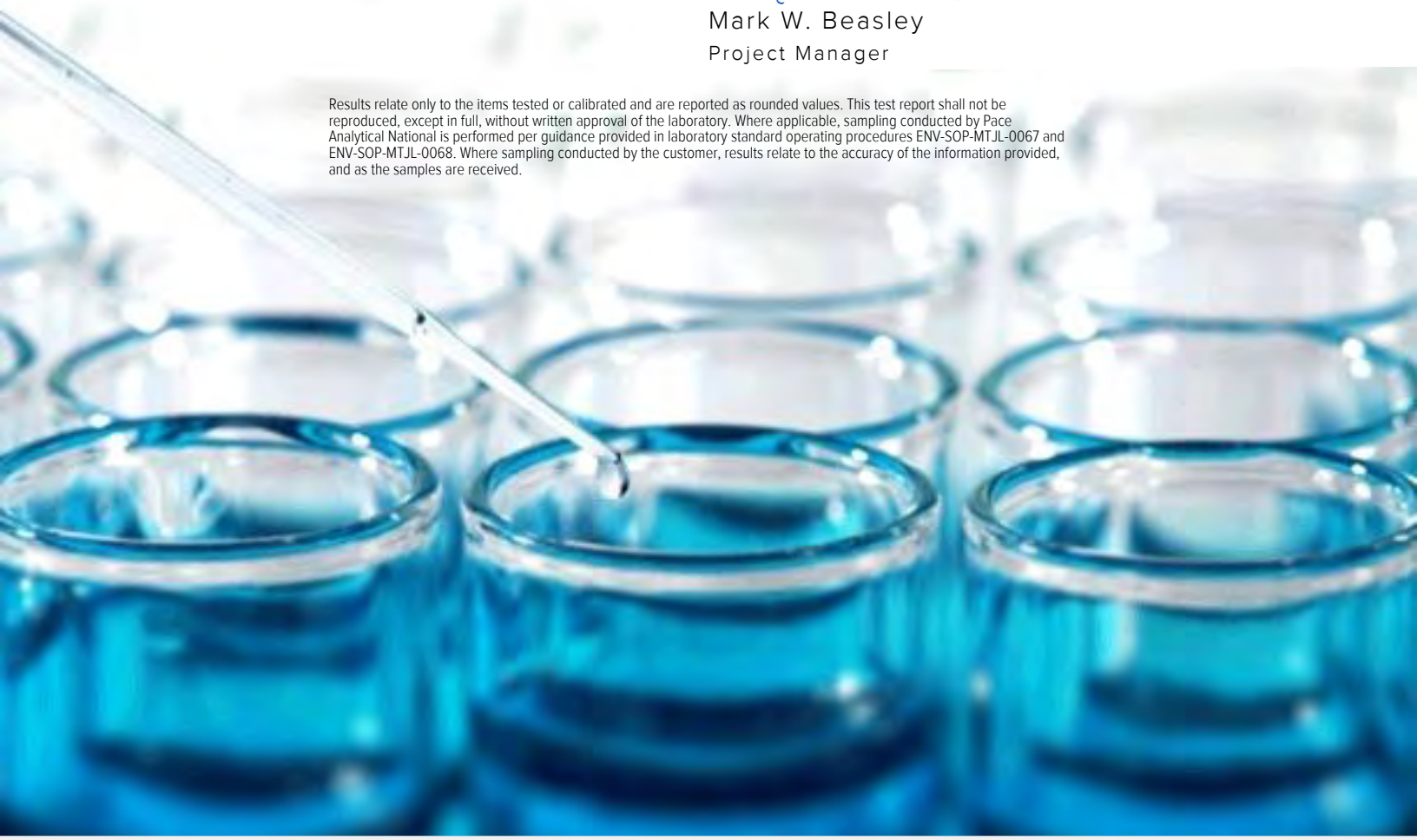


TABLE OF CONTENTS

MW-2R-072619 L1123080-01 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 09:00 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 13:09	08/05/19 13:09	JAH	Mt. Juliet, TN

MW-8-072619 L1123080-02 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 09:45 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 13:33	08/05/19 13:33	JAH	Mt. Juliet, TN

MW-9-072619 L1123080-03 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 10:30 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 14:08	08/05/19 14:08	JAH	Mt. Juliet, TN

MW-10-072619 L1123080-04 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 10:50 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 14:32	08/05/19 14:32	JAH	Mt. Juliet, TN

MW-12-072619 L1123080-05 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 11:15 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 14:56	08/05/19 14:56	JAH	Mt. Juliet, TN

MW-13-072619 L1123080-06 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 11:35 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322844	1	08/05/19 15:20	08/05/19 15:20	JAH	Mt. Juliet, TN

MW-14-072619 L1123080-07 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 11:50 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	1	08/03/19 18:20	08/03/19 18:20	DWR	Mt. Juliet, TN

MW-6-072619 L1123080-08 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 12:05 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	1	08/03/19 18:44	08/03/19 18:44	DWR	Mt. Juliet, TN

MW-4-072619 L1123080-09 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 12:15 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	1	08/03/19 19:07	08/03/19 19:07	DWR	Mt. Juliet, TN

MW-5-072619 L1123080-10 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 12:30 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	1	08/03/19 19:31	08/03/19 19:31	DWR	Mt. Juliet, TN

MW-1R-072619 L1123080-11 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 12:45 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	5	08/03/19 19:55	08/03/19 19:55	DWR	Mt. Juliet, TN

MW-17-072619 L1123080-12 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 13:05 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	20	08/03/19 20:19	08/03/19 20:19	DWR	Mt. Juliet, TN

DUP-1-072619 L1123080-13 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 00:00 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	1	08/03/19 20:43	08/03/19 20:43	DWR	Mt. Juliet, TN

DUP-2-072619 L1123080-14 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 00:00 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322518	10	08/03/19 21:07	08/03/19 21:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1323179	100	08/05/19 17:20	08/05/19 17:20	BMB	Mt. Juliet, TN

TRIP BLANK L1123080-15 GW

Collected by: Justin Nixon | Collected date/time: 07/26/19 00:00 | Received date/time: 07/27/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1322226	1	08/03/19 00:56	08/03/19 00:56	DWR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 08/06/2019 23:48
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1123080-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 and 15
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1322226, WG1322518, WG1322844 and WG1323179

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 08/06/2019 23:48
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1123080-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 and 15
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1322226, WG1322518, WG1322844 and WG1323179

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 08/06/2019 23:48
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1123080-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 and 15
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1322226, WG1322518, WG1322844 and WG1323179

ER #[1]	Description
1	8021B WG1322518 Total Xylene L1123080-07, 10, 11 and 13: Concentration in the Blank >MQL.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 13:09	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 13:09	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 13:09	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 13:09	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/05/2019 13:09*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 13:33	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 13:33	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 13:33	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 13:33	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/05/2019 13:33*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 14:08	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 14:08	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 14:08	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 14:08	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/05/2019 14:08*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 14:32	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 14:32	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 14:32	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 14:32	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/05/2019 14:32*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 14:56	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 14:56	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 14:56	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 14:56	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/05/2019 14:56*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/05/2019 15:20	WG1322844
Toluene	U		0.000412	0.00100	0.00100	1	08/05/2019 15:20	WG1322844
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/05/2019 15:20	WG1322844
Total Xylene	U		0.000510	0.00150	0.00150	1	08/05/2019 15:20	WG1322844
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/05/2019 15:20*	WG1322844

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/03/2019 18:20	WG1322518
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 18:20	WG1322518
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/03/2019 18:20	WG1322518
Total Xylene	U	B	0.000510	0.00150	0.00150	1	08/03/2019 18:20	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/03/2019 18:20*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000931		0.000190	0.000500	0.000500	1	08/03/2019 18:44	WG1322518
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 18:44	WG1322518
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/03/2019 18:44	WG1322518
Total Xylene	U		0.000510	0.00150	0.00150	1	08/03/2019 18:44	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/03/2019 18:44*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000875		0.000190	0.000500	0.000500	1	08/03/2019 19:07	WG1322518
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 19:07	WG1322518
Ethylbenzene	0.000161	B J	0.000160	0.000500	0.000500	1	08/03/2019 19:07	WG1322518
Total Xylene	U		0.000510	0.00150	0.00150	1	08/03/2019 19:07	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/03/2019 19:07*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00878		0.000190	0.000500	0.000500	1	08/03/2019 19:31	WG1322518
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 19:31	WG1322518
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/03/2019 19:31	WG1322518
Total Xylene	0.00183	B	0.000510	0.00150	0.00150	1	08/03/2019 19:31	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/03/2019 19:31*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.153		0.000950	0.000500	0.00250	5	08/03/2019 19:55	WG1322518
Toluene	U		0.00206	0.00100	0.00500	5	08/03/2019 19:55	WG1322518
Ethylbenzene	0.00244	B J	0.000800	0.000500	0.00250	5	08/03/2019 19:55	WG1322518
Total Xylene	0.0124	B	0.00255	0.00150	0.00750	5	08/03/2019 19:55	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/03/2019 19:55*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	2.88		0.00380	0.000500	0.0100	20	08/03/2019 20:19	WG1322518
Toluene	U		0.00824	0.00100	0.0200	20	08/03/2019 20:19	WG1322518
Ethylbenzene	0.252		0.00320	0.000500	0.0100	20	08/03/2019 20:19	WG1322518
Total Xylene	0.208		0.0102	0.00150	0.0300	20	08/03/2019 20:19	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/03/2019 20:19*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00900		0.000190	0.000500	0.000500	1	08/03/2019 20:43	WG1322518
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 20:43	WG1322518
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/03/2019 20:43	WG1322518
Total Xylene	0.00174	B	0.000510	0.00150	0.00150	1	08/03/2019 20:43	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/03/2019 20:43*	WG1322518

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	2.81		0.0190	0.000500	0.0500	100	08/05/2019 17:20	WG1323179
Toluene	U		0.00412	0.00100	0.0100	10	08/03/2019 21:07	WG1322518
Ethylbenzene	0.264		0.00160	0.000500	0.00500	10	08/03/2019 21:07	WG1322518
Total Xylene	0.189		0.00510	0.00150	0.0150	10	08/03/2019 21:07	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*08/03/2019 21:07*	WG1322518
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/05/2019 17:20*	WG1323179

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/03/2019 00:56	WG1322226
Toluene	U		0.000412	0.00100	0.00100	1	08/03/2019 00:56	WG1322226
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/03/2019 00:56	WG1322226
Total Xylene	U		0.000510	0.00150	0.00150	1	08/03/2019 00:56	WG1322226
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/03/2019 00:56*	WG1322226

Method Blank (MB)

(MB) R3437237-2 08/03/19 00:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3437237-1 08/02/19 23:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0443	88.6	77.0-122	
Toluene	0.0500	0.0432	86.5	80.0-121	
Ethylbenzene	0.0500	0.0470	94.0	80.0-123	
Total Xylene	0.150	0.139	92.5	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*103*	*79.0-125*	

Method Blank (MB)

(MB) R3437383-3 08/03/19 13:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	0.000191	J	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3437383-1 08/03/19 11:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0507	101	77.0-122	
Toluene	0.0500	0.0495	99.0	80.0-121	
Ethylbenzene	0.0500	0.0542	108	80.0-123	
Total Xylene	0.150	0.159	106	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*103*	*79.0-125*	

Method Blank (MB)

(MB) R3437582-3 08/05/19 11:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3437582-1 08/05/19 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0525	105	77.0-122	
Toluene	0.0500	0.0515	103	80.0-121	
Ethylbenzene	0.0500	0.0566	113	80.0-123	
Total Xylene	0.150	0.167	111	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*79.0-125*	

Method Blank (MB)

(MB) R3437604-3 08/05/19 11:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3437604-1 08/05/19 09:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0525	105	77.0-122	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*79.0-125*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

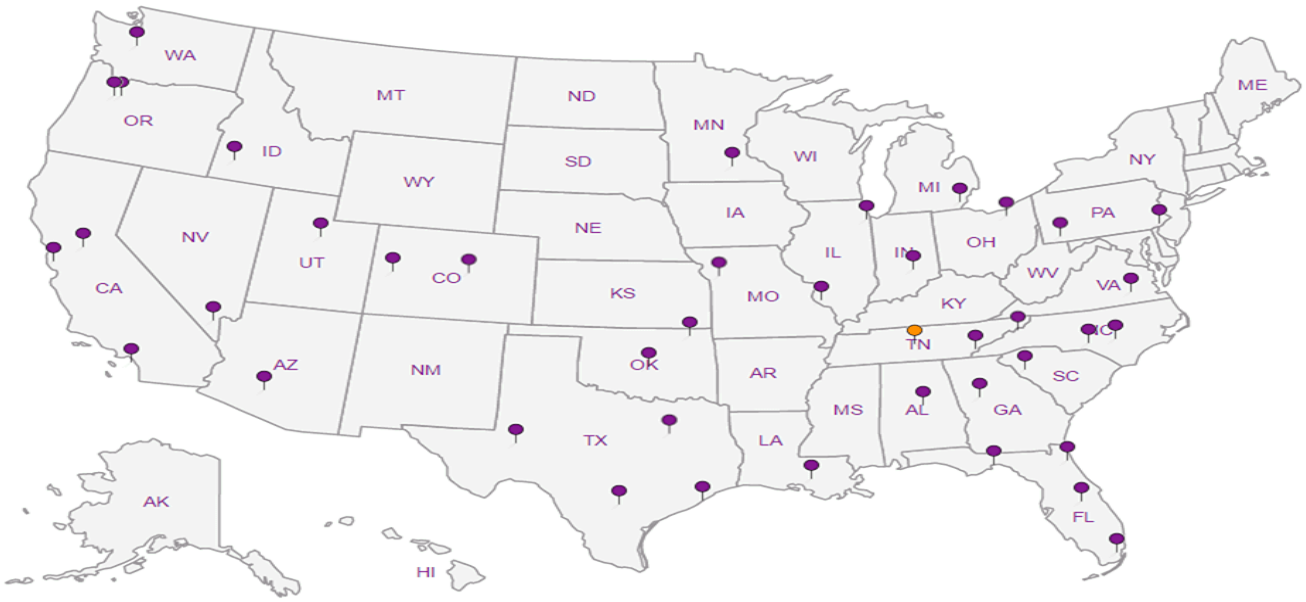
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1123080
B076

Acctnum: PLAIN
Template: T139740
Prelogin: P719645
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: James Ornelas

Email To: christopher.knight@ghd.com, james.ornelas@ghd.com

Project Description: Denton Station- Lea County, New Mexico

City/State Collected:

Phone: 432-686-0086
Fax:

Client Project # 074682

Lab Project # PLAINSGHD-074682

Collected by (print): Justin Mixon

Site/Facility ID # SRS#:2003-00338

P.O. #

Collected by (signature): [signature]

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y X

Analysis / Container / Preservative: BTEX 40mlAmb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
mw-2R-072619	G	GW		7-26-19	900	3	X		-01
mw-8-072619	↓	GW		↓	945	↓	↓		-02
mw-9-072619	↓	GW		↓	1030	↓	↓		-03
mw-10-072619	↓	GW		↓	1050	↓	↓		-04
mw-12-072619	↓	GW		↓	1115	↓	↓		-05
mw-13-072619	↓	GW		↓	1135	↓	↓		-06
mw-14-072619	↓	GW		↓	1150	↓	↓		-07
mw-6-072619	↓	GW		↓	1205	↓	↓		-08
mw-4-072619	↓	GW		↓	1215	↓	↓		-09
mw-5-072619	↓	GW		↓	1230	↓	↓		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks: Report to SDLS
Flag estimated concentrations

pH ______ Temp ______
RAD SCREEN: <0.5 mR/hr Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx X Courier __ ______

Tracking # 4510 1659 6479

Sample Receipt Checklist
COC Seal Present/Intact: NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: ✓Y _N
Preservation Correct/Checked: _Y _N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	
[signature]	7-26-19	1500		Trip Blank Received: (Yes) / No — (HCL) / MeoH — TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: ASP °C 1.3+.1=1.4 — Bottles Received: 42
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Hailey [signature]	Date: 7/27/19 — Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Page 2 of 2

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Report to: **James Ornelas**

Email To: **christopher.knight@ghd.com, james.ornelas@ghd.com**

Project Description: **Denton Station- Lea County, New Mexico**

City/State Collected:

Phone: **432-686-0086**
Fax:

Client Project # **074682**

Lab Project # **PLAINSGHD-074682**

Collected by (print): Justin Lisenbee

Site/Facility ID # **SRS#:2003-00338**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Chain of Custody

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1123080

Table #

Acctnum: **PLAINSGHD**
Template: **T139740**
Prelogin: **P719645**
TSR: **134 - Mark W. Beasley**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40ml Amb-HCl	Remarks	Sample # (lab only)
mw-1R-072619	G	GW		7-26-19	1245	3	X		-11
mw-17-072619	G	GW		7-26-19	1305	3	X		-12
Dup-1-072619	G	GW		7-26-19	—	3	X		-13
Dup-2-072619	G	GW		7-26-19	—	3	X		-14
		GW							
		GW							
		GW							
TRIP BLANK		GW		7-26-19		1			-15

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Report to SDLS
Flag estimated concentrations

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS __FedEx X Courier _____

Tracking # 4510 1659 6479

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	7-26-19	1540		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.5°C 1.3+.1=1.4	Bottles Received: 42
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7/27/19	Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 07, 2019

Plains All American, LP - GHD

Sample Delivery Group:	L1154393
Samples Received:	10/26/2019
Project Number:	074682
Description:	Denton Station- Lea County, New Mexico
Site:	SRS#:2003-00338
Report To:	John Schnable 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

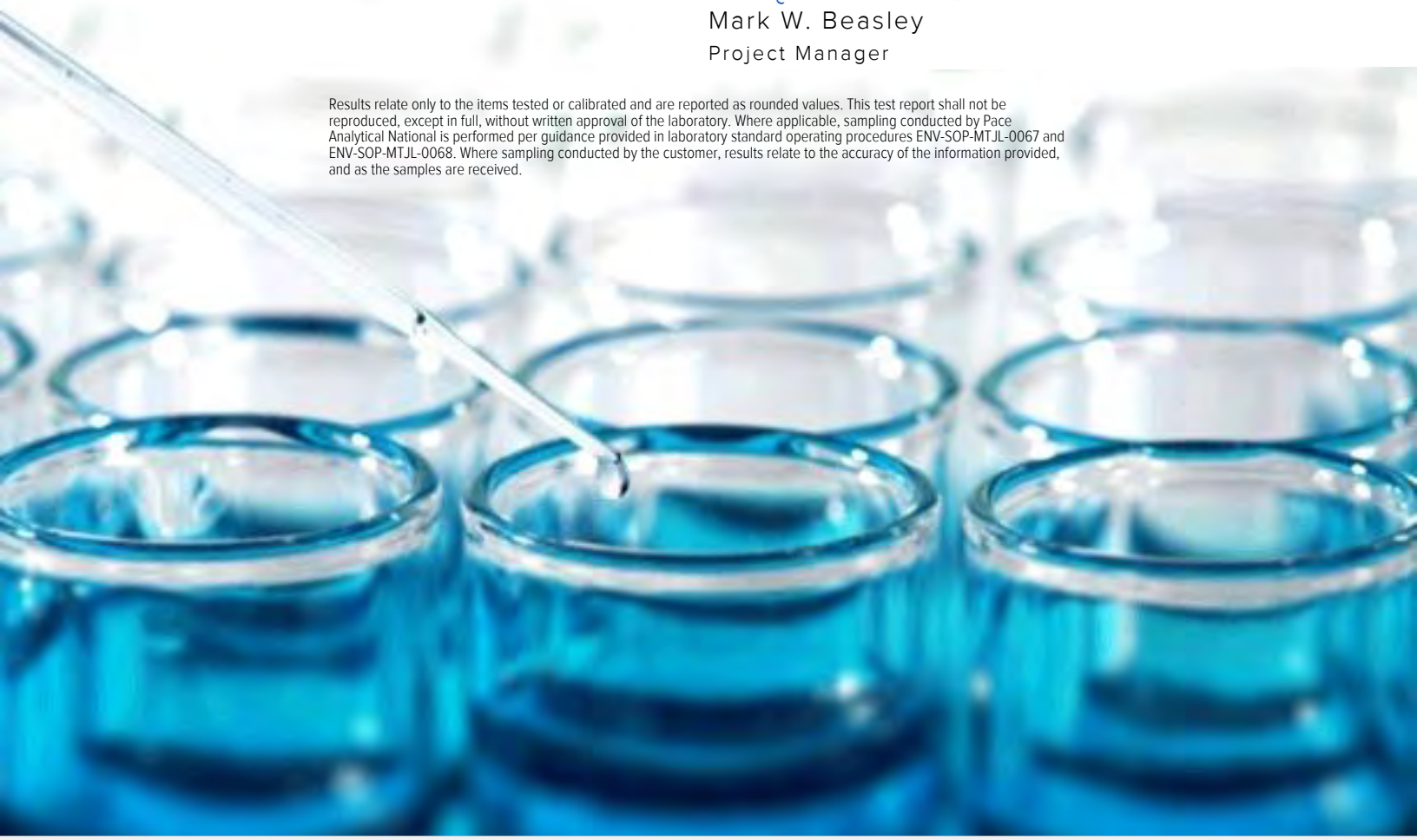


TABLE OF CONTENTS

MW-2R-102319 L1154393-01 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 10:05 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 15:20	11/05/19 15:20	ACG	Mt. Juliet, TN

MW-8-102319 L1154393-02 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 10:30 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 15:43	11/05/19 15:43	ACG	Mt. Juliet, TN

MW-9-102319 L1154393-03 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 10:55 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 16:05	11/05/19 16:05	ACG	Mt. Juliet, TN

MW-10-102319 L1154393-04 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 11:15 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 16:27	11/05/19 16:27	ACG	Mt. Juliet, TN

MW-12-102319 L1154393-05 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 11:30 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 16:49	11/05/19 16:49	ACG	Mt. Juliet, TN

MW-13-102319 L1154393-06 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 11:45 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 17:12	11/05/19 17:12	ACG	Mt. Juliet, TN

MW-14-102319 L1154393-07 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 12:00 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 17:33	11/05/19 17:33	ACG	Mt. Juliet, TN

MW-15-102319 L1154393-08 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 12:20 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375505	1	11/06/19 06:44	11/06/19 06:44	ACG	Mt. Juliet, TN

MW-4-102319 L1154393-09 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 12:50 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375505	1	11/06/19 07:04	11/06/19 07:04	ACG	Mt. Juliet, TN

MW-6-102319 L1154393-10 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 13:30 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 18:41	11/05/19 18:41	ACG	Mt. Juliet, TN

DUP-1-102319 L1154393-11 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 00:00 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375198	1	11/05/19 19:03	11/05/19 19:03	ACG	Mt. Juliet, TN

MW-5-102319 L1154393-12 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 14:00 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375310	1	11/06/19 03:55	11/06/19 03:55	DWR	Mt. Juliet, TN

MW-1R-102319 L1154393-13 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 14:25 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375310	5	11/06/19 04:17	11/06/19 04:17	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1370550	1	10/29/19 17:41	10/30/19 03:12	AAT	Mt. Juliet, TN

MW-17-102319 L1154393-14 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 15:05 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375310	20	11/06/19 04:40	11/06/19 04:40	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1370550	1	10/29/19 17:41	10/30/19 03:33	AAT	Mt. Juliet, TN

DUP-2-102319 L1154393-15 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 00:00 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375310	100	11/06/19 05:24	11/06/19 05:24	DWR	Mt. Juliet, TN

TRIP BLANK L1154393-16 GW

Collected by: Justin Nixon | Collected date/time: 10/23/19 00:00 | Received date/time: 10/26/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1375310	1	11/06/19 02:25	11/06/19 02:25	DWR	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

Sample Delivery Group (SDG) Narrative

VOC pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1154393-06	MW-13-102319	8021B
L1154393-07	MW-14-102319	8021B
L1154393-10	MW-6-102319	8021B

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 11/07/2019 14:18
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1154393-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1370550, WG1375198, WG1375505 and WG1375310

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?		X			2
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 11/07/2019 14:18
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1154393-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1370550, WG1375198, WG1375505 and WG1375310

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/07/2019 14:18
Project Name: Denton Station- Lea County, New Mexico	Laboratory Job Number: L1154393-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1370550, WG1375198, WG1375505 and WG1375310

ER #[1]	Description
1	8270C-SIM WG1370550 Nitrobenzene-d5 L1154393-14: Percent Recovery is outside of established control limits.
2	8021B WG1375198 L1154393-06, 07 and 10: VOC pH outside of method requirement.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 15:20	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 15:20	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 15:20	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 15:20	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/05/2019 15:20*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 15:43	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 15:43	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 15:43	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 15:43	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/05/2019 15:43*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 16:05	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 16:05	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 16:05	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 16:05	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/05/2019 16:05*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 16:27	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 16:27	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 16:27	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 16:27	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*11/05/2019 16:27*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 16:49	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 16:49	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 16:49	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 16:49	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*11/05/2019 16:49*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 17:12	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 17:12	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 17:12	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 17:12	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*11/05/2019 17:12*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 17:33	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 17:33	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 17:33	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 17:33	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*11/05/2019 17:33*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/06/2019 06:44	WG1375505
Toluene	U		0.000412	0.00100	0.00100	1	11/06/2019 06:44	WG1375505
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/06/2019 06:44	WG1375505
Total Xylene	U		0.000510	0.00150	0.00150	1	11/06/2019 06:44	WG1375505
(S) a,a,a-Trifluorotoluene(PID)	*95.0*				*79.0-125*		*11/06/2019 06:44*	WG1375505

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000455	J	0.000190	0.000500	0.000500	1	11/06/2019 07:04	WG1375505
Toluene	0.000423	J	0.000412	0.00100	0.00100	1	11/06/2019 07:04	WG1375505
Ethylbenzene	0.000220	J	0.000160	0.000500	0.000500	1	11/06/2019 07:04	WG1375505
Total Xylene	U		0.000510	0.00150	0.00150	1	11/06/2019 07:04	WG1375505
(S) a,a,a-Trifluorotoluene(PID)	*92.4*				*79.0-125*		*11/06/2019 07:04*	WG1375505

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 18:41	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 18:41	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 18:41	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 18:41	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/05/2019 18:41*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/05/2019 19:03	WG1375198
Toluene	U		0.000412	0.00100	0.00100	1	11/05/2019 19:03	WG1375198
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/05/2019 19:03	WG1375198
Total Xylene	U		0.000510	0.00150	0.00150	1	11/05/2019 19:03	WG1375198
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/05/2019 19:03*	WG1375198

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00445		0.000190	0.000500	0.000500	1	11/06/2019 03:55	WG1375310
Toluene	U		0.000412	0.00100	0.00100	1	11/06/2019 03:55	WG1375310
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/06/2019 03:55	WG1375310
Total Xylene	U		0.000510	0.00150	0.00150	1	11/06/2019 03:55	WG1375310
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/06/2019 03:55*	WG1375310

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.167		0.000950	0.000500	0.00250	5	11/06/2019 04:17	WG1375310
Toluene	U		0.00206	0.00100	0.00500	5	11/06/2019 04:17	WG1375310
Ethylbenzene	0.00269		0.000800	0.000500	0.00250	5	11/06/2019 04:17	WG1375310
Total Xylene	0.0124		0.00255	0.00150	0.00750	5	11/06/2019 04:17	WG1375310
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/06/2019 04:17*	WG1375310

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0000404	J	0.0000140	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Acenaphthene	0.0000581		0.0000100	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Acenaphthylene	U		0.0000120	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Benzo(a)anthracene	U		0.00000410	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Benzo(a)pyrene	U		0.0000116	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Benzo(b)fluoranthene	U		0.00000212	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Benzo(k)fluoranthene	U		0.0000136	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Chrysene	U		0.0000108	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Dibenzofuran	0.000413		0.00000105	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Fluoranthene	U		0.0000157	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Fluorene	0.000335		0.00000850	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Naphthalene	0.00264		0.0000198	0.000250	0.000250	1	10/30/2019 03:12	WG1370550
Phenanthrene	0.000193		0.00000820	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
Pyrene	0.0000121	J	0.0000117	0.0000500	0.0000500	1	10/30/2019 03:12	WG1370550
1-Methylnaphthalene	0.00163		0.00000821	0.000250	0.000250	1	10/30/2019 03:12	WG1370550
2-Methylnaphthalene	0.000991		0.00000902	0.000250	0.000250	1	10/30/2019 03:12	WG1370550
(S) Nitrobenzene-d5	*141*				*31.0-160*		*10/30/2019 03:12*	WG1370550
(S) 2-Fluorobiphenyl	*112*				*48.0-148*		*10/30/2019 03:12*	WG1370550
(S) p-Terphenyl-d14	*121*				*37.0-146*		*10/30/2019 03:12*	WG1370550

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	1.54		0.00380	0.000500	0.0100	20	11/06/2019 04:40	WG1375310
Toluene	U		0.00824	0.00100	0.0200	20	11/06/2019 04:40	WG1375310
Ethylbenzene	0.171		0.00320	0.000500	0.0100	20	11/06/2019 04:40	WG1375310
Total Xylene	0.293		0.0102	0.00150	0.0300	20	11/06/2019 04:40	WG1375310
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*11/06/2019 04:40*	WG1375310

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000380		0.0000140	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Acenaphthene	0.000463		0.0000100	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Acenaphthylene	U		0.0000120	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Benzo(a)anthracene	U		0.00000410	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Benzo(a)pyrene	0.0000125	J	0.0000116	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Benzo(b)fluoranthene	0.0000211	J	0.00000212	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Benzo(g,h,i)perylene	0.0000143	J	0.00000227	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Benzo(k)fluoranthene	U		0.0000136	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Chrysene	0.0000639		0.0000108	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Dibenzofuran	0.00186		0.00000105	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Fluoranthene	0.0000518		0.0000157	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Fluorene	0.00168		0.00000850	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Naphthalene	0.0682		0.0000198	0.000250	0.000250	1	10/30/2019 03:33	WG1370550
Phenanthrene	0.00223		0.00000820	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
Pyrene	0.000174		0.0000117	0.0000500	0.0000500	1	10/30/2019 03:33	WG1370550
1-Methylnaphthalene	0.0501		0.00000821	0.000250	0.000250	1	10/30/2019 03:33	WG1370550
2-Methylnaphthalene	0.0576		0.00000902	0.000250	0.000250	1	10/30/2019 03:33	WG1370550
(S) Nitrobenzene-d5	*171*	J1			*31.0-160*		*10/30/2019 03:33*	WG1370550
(S) 2-Fluorobiphenyl	*107*				*48.0-148*		*10/30/2019 03:33*	WG1370550
(S) p-Terphenyl-d14	*132*				*37.0-146*		*10/30/2019 03:33*	WG1370550

Sample Narrative:

L1154393-14 WG1370550: Surrogate failure due to matrix interference

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	1.26		0.0190	0.000500	0.0500	100	11/06/2019 05:24	WG1375310
Toluene	U		0.0412	0.00100	0.100	100	11/06/2019 05:24	WG1375310
Ethylbenzene	0.201		0.0160	0.000500	0.0500	100	11/06/2019 05:24	WG1375310
Total Xylene	0.201		0.0510	0.00150	0.150	100	11/06/2019 05:24	WG1375310
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*11/06/2019 05:24*	WG1375310

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/06/2019 02:25	WG1375310
Toluene	U		0.000412	0.00100	0.00100	1	11/06/2019 02:25	WG1375310
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/06/2019 02:25	WG1375310
Total Xylene	U		0.000510	0.00150	0.00150	1	11/06/2019 02:25	WG1375310
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/06/2019 02:25*	WG1375310

Method Blank (MB)

(MB) R3468897-2 11/05/19 11:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3468897-1 11/05/19 10:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0597	119	77.0-122	
Toluene	0.0500	0.0595	119	80.0-121	
Ethylbenzene	0.0500	0.0575	115	80.0-123	
Total Xylene	0.150	0.169	113	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*104*	*79.0-125*	

Method Blank (MB)

(MB) R3469177-2 11/06/19 02:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*103*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3469177-1 11/06/19 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0462	92.4	77.0-122	
Toluene	0.0500	0.0470	94.0	80.0-121	
Ethylbenzene	0.0500	0.0440	88.0	80.0-123	
Total Xylene	0.150	0.133	88.7	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*79.0-125*	

Method Blank (MB)

(MB) R3469174-3 11/06/19 06:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*94.9*			*79.0-125*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3469174-1 11/06/19 05:01 • (LCSD) R3469174-2 11/06/19 05:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0534	0.0540	107	108	77.0-122			1.12	20
Toluene	0.0500	0.0492	0.0494	98.4	98.8	80.0-121			0.406	20
Ethylbenzene	0.0500	0.0513	0.0514	103	103	80.0-123			0.195	20
Total Xylene	0.150	0.141	0.142	94.0	94.7	47.0-154			0.707	20
(S) a,a,a-Trifluorotoluene(PID)				*106*	*104*	*79.0-125*				

L1154391-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1154391-14 11/06/19 13:33 • (MS) R3469174-4 11/06/19 13:54 • (MSD) R3469174-5 11/06/19 14:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0649	0.105	0.104	80.2	78.2	1	10.0-160			0.957	21
Toluene	0.0500	0.000664	0.0449	0.0438	88.5	86.3	1	12.0-148			2.48	21
Ethylbenzene	0.0500	0.00157	0.0463	0.0450	89.5	86.9	1	22.0-149			2.85	21
Total Xylene	0.150	0.00622	0.135	0.132	85.9	83.9	1	13.0-155			2.25	21
(S) a,a,a-Trifluorotoluene(PID)					*110*	*110*		*79.0-125*				

Method Blank (MB)

(MB) R3466490-3 10/29/19 21:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
1-Methylnaphthalene	0.0000124	J	0.00000821	0.000250
2-Methylnaphthalene	0.0000200	J	0.00000902	0.000250
Dibenzofuran	0.00000719	J	0.00000105	0.0000500
(S) Nitrobenzene-d5	*131*			*31.0-160*
(S) 2-Fluorobiphenyl	*114*			*48.0-148*
(S) p-Terphenyl-d14	*138*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3466490-1 10/29/19 20:58 • (LCSD) R3466490-2 10/29/19 21:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00210	0.00207	105	103	67.0-134			1.44	20
Anthracene	0.00200	0.00206	0.00207	103	103	67.0-150			0.484	20
Acenaphthene	0.00200	0.00209	0.00206	105	103	65.0-138			1.45	20
Acenaphthylene	0.00200	0.00231	0.00224	115	112	66.0-140			3.08	20
Benzo(a)anthracene	0.00200	0.00223	0.00214	111	107	61.0-140			4.12	20
Benzo(a)pyrene	0.00200	0.00223	0.00220	111	110	60.0-143			1.35	20
Benzo(b)fluoranthene	0.00200	0.00216	0.00205	108	102	58.0-141			5.23	20
Benzo(g,h,i)perylene	0.00200	0.00222	0.00218	111	109	52.0-153			1.82	20
Benzo(k)fluoranthene	0.00200	0.00224	0.00230	112	115	58.0-148			2.64	20
Chrysene	0.00200	0.00216	0.00214	108	107	64.0-144			0.930	20
Dibenz(a,h)anthracene	0.00200	0.00217	0.00214	108	107	52.0-155			1.39	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3466490-1 10/29/19 20:58 • (LCSD) R3466490-2 10/29/19 21:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluoranthene	0.00200	0.00231	0.00226	115	113	69.0-153			2.19	20
Fluorene	0.00200	0.00214	0.00210	107	105	64.0-136			1.89	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00224	0.00220	112	110	54.0-153			1.80	20
Naphthalene	0.00200	0.00191	0.00192	95.5	96.0	61.0-137			0.522	20
Phenanthrene	0.00200	0.00214	0.00211	107	105	62.0-137			1.41	20
Pyrene	0.00200	0.00229	0.00222	114	111	60.0-142			3.10	20
1-Methylnaphthalene	0.00200	0.00199	0.00201	99.5	100	66.0-142			1.00	20
2-Methylnaphthalene	0.00200	0.00189	0.00188	94.5	94.0	62.0-136			0.531	20
(S) Nitrobenzene-d5				*121*	*119*	*31.0-160*				
(S) 2-Fluorobiphenyl				*105*	*108*	*48.0-148*				
(S) p-Terphenyl-d14				*125*	*121*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

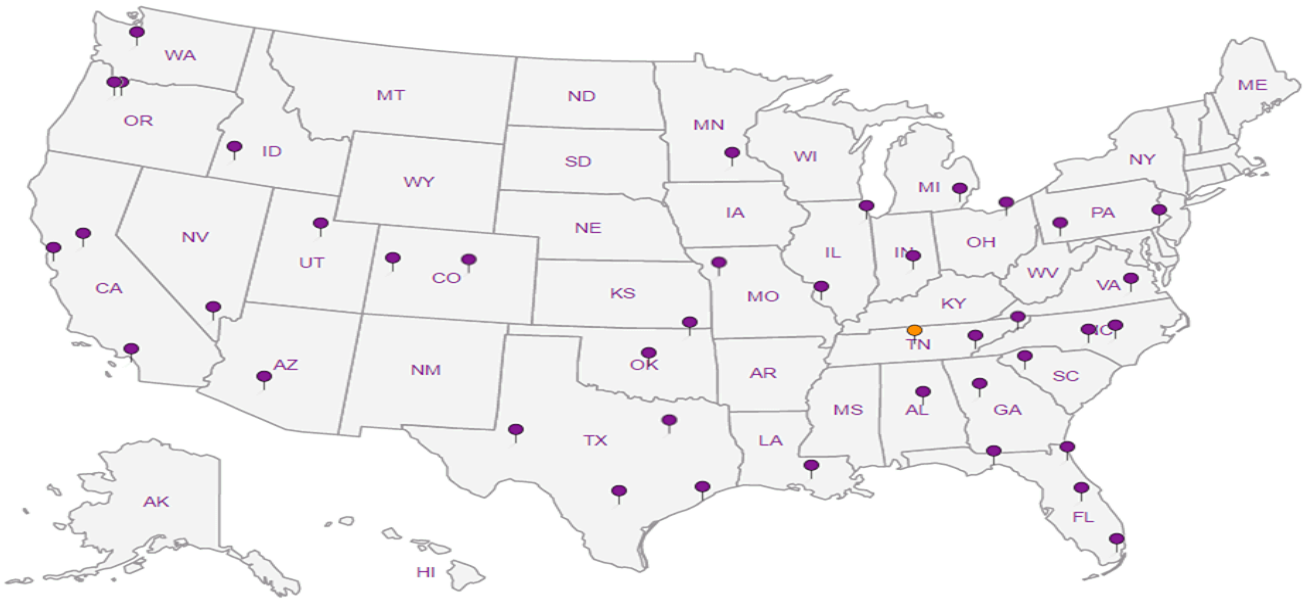
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Report to: John Schnable

Email To: john.schnable@ghd.com, christopher.knight@ghd.com,

Project Description: Denton Station- Lea County, Ne

City/State Collected:

Please Circle: PT MT CT ET

Phone: 432-686-0086
Fax:

Client Project # 074682

Lab Project # PLAINSGHD-074682

Collected by (print): John Nixon

Site/Facility ID # SRS#:2003-00338

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1154393

E244

Acctnum: PLAINSGHD
Template: T139740
Prelogin: P736585
PM: 134 - Mark W. Beasley
PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	PAHSIMLVI 40mlAmb-NoPres-WT	Pres Chk	Remarks	Sample # (lab only)
MW-2R-102319	G	GW		10-23-19	1005	3	X				-01
MW-8-102319		GW		10-23-19	10:30	3	X				02
MW-9-102319		GW		10-23-19	10:55	3	X				03
MW-10-102319		GW		10-23-19	11:15	3	X				04
MW-12-102319		GW		10-23-19	11:30	3	X				05
MW-13-102319		GW		10-23-19	11:45	3	X				06
MW-14-102319		GW		10-23-19	12:00	3	X				07
MW-15-102319		GW		10-23-19	12:20	3	X				08
MW-4-102319		GW		10-23-19	12:50	3	X				09
MW-6-102319		GW		10-23-19	13:30	3	X				10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Report to SDLS
Flag estimated concentrations

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	X NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date: 10-25-19	Time: 14:00	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	
Relinquished by : (Signature)	Date: 10.25.19	Time: 17:00	Received by: (Signature)	Temp: 2.8+0=2.8 °C	Bottles Received: 49
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/26/19	Time: 820

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

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Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	PAHSIMLVI 40mlAmb-NoPres-WT	Remarks	Sample # (lab only)
Dup-1-102319	G	GW		10-23-19	N/A	3	X			-11
MW-5-102319		GW		10-23-19	14:00	3	X			12
MW-1R-102319		GW		10-23-19	14:25	5	X	X		13
MW-17-102319		GW		10-23-19	15:05	5	X	X		14
Dup-2-102319		GW		10-23-19	N/A	3	X			15
Trip Blank	G	GW		10-23-19	N/A	1	X			16
		GW								
TRIP BLANK		GW								
		GW								
		GW								

Chain of Custody Page 2 of 2

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COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD Screen <0.5 mR/hr: ___Y ___N

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	10-25-19	14:00		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.8-0.2=2.8 °C	Bottles Received: 49
	10-25-19	17:00			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/26/19	Time: 8:10

Hold: Condition: NCF / OK

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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