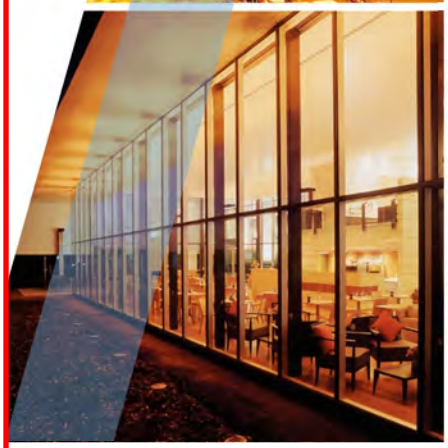
2021 Annual Groundwater Monitoring Report

Darr Angell #4
Lea County, New Mexico
SRS #2001-10876
NMOCD Abatement Plan Number AP-007
Incident ID #: nAPP2108856592



Plains Pipeline LP

Review of 2021 ANNUAL GROUNDWATER MONITORING REPORT: **Content satisfactory**

Contractor recommendations approved and are as follows;

1. Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis. Repair the third pump and re-install into RW-16.
2. Conduct LNAPL abatement via hand-bailing on a weekly basis for recovery wells that have a measurable amount of LNAPL, but no pump installed.
3. Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site.
4. Continue NMOCD-approved annual GWSE for PAH by Method 8270C for RW-7, RW-9, and RW-13 as applicable.
5. MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R, and RW-19 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore NMOCD approves the removal from the annual PAH sampling schedule unless they are re-impacted by LNAPL.
6. Continue to monitor RW-9 for measurable amount of LNAPL.
7. Continue to monitor RW-7 and RW-13 and sample once a significant amount of groundwater is re-introduced.
8. Submit annual report to NMOCD no later than March 31,2023.

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FIGURES

TABLES

APPENDICES

1. Introduction

GHD Services, Inc. (GHD), on behalf of Plains All American Pipeline, L.P. (Plains), submits this 2021 Annual Groundwater Monitoring Report (Report) in compliance with New Mexico Oil Conservation Division (NMOCD) requirements. This Report provides the results of quarterly groundwater sampling events (GWSEs) and remediation activities completed at Darr Angell #4 SRS #2001-10876 (Site) during 2021.

The Site is located in NW ¼, NE ¼, Section 11, Township 15 South, Range 37 East; and SW ¼, SE ¼, Section 2, Township 15 South, Range 37 East, in Lea County, New Mexico. The GPS coordinates are 33.038571° N latitude and 103.167629° W longitude. A Site Location Map is provided as Figure 1. The remediation area and site details are depicted on Figure 2, Site Details Map.

1.1 Site History

The Site was formerly the responsibility of Enron Oil Trading and Transportation (EOTT); however, the Site is currently the responsibility of Plains. There were two separate pipeline releases at the Site. The first release occurred on November 9, 1999, and the second on February 2, 2001. The second release was discovered by EOTT, who notified NMOCD immediately. Details of the release were submitted on a Release Notification and Corrective Action Form (C-141) to the NMOCD on May 21, 2005. The C-141 reported the release of 150 barrels (bbls) of crude oil with 95 bbls recovered. The release was reported to have occurred from an 8-inch EOTT pipeline and was attributed to internal pipeline corrosion.

Beginning on May 29, 2004, project management responsibilities were performed by NOVA. GHD was given project management responsibilities on May 2, 2011.

Recovery well RW-4 was plugged and abandoned with NMOCD approval on October 9, 2014. Recovery well RW-4R was drilled and constructed on October 9, 2014. Recovery well RW-3R, RW-14, and RW-15 were drilled and constructed on October 14, 2014. Monitoring wells MW-3, MW-12, and recovery well RW-3 were plugged and abandoned with NMOCD approval on October 15, 2014. Replacement monitoring wells MW-3R and MW-12R were drilled and constructed on October 15, 2014. Monitor wells MW-4, MW-8, MW-10, and recovery wells RW-5 and RW-6 were plugged and abandoned on February 23, 2017. Monitor wells MW-4R, MW-8R, MW-10R, MW-17, and recovery wells RW-5R, RW-16, and RW-17 were drilled and constructed in February and March 2017.

On February 19, 2020, MW-1A, MW-2, MW-5 through MW-7, MW-9, MW-11, MW-13, RW-1, RW-2, RW-8, RW-10, and RW-12 were plugged and abandoned. On March 10, 2020, RW-10R, RW-18, and RW-19 were installed. MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, and MW-18 were installed on April 13 and 14, 2020.

Locations of new wells were professionally surveyed on November 11, 2014, June 29, 2017, and September 17, 2020.

There are currently 16 groundwater monitor wells (MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-7R, MW-8R, MW-10R, MW-11R, MW-12R, MW-13R, MW-14, MW-15, MW-16, MW-17 and MW-18)

and 14 recovery wells (RW-3R, RW-4R, RW-5R, RW-7, RW-9, RW-10R, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18 and RW-19) on site.

2. Regulatory Framework

The Site was assigned Remediation Permit Number AP-007 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, which provide Human Health Standards for Groundwater. The constituents of concern (COCs) in affected groundwater at the Site are benzene, toluene, ethylbenzene, and total xylenes (BTEX); benzo(a)pyrene; and combined naphthalene and monomethylnapthalenes. NMWQCC standards as shown in Table 2.1 are used to guide assessment and remediation of the Site:

Table 2.1 NMWQCC Human Health Standards

Analyte	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
Combined Naphthalene and Monomethylnaphthalenes	0.03 mg/L

3. 2021 Groundwater Sampling Events

GHD conducted quarterly GWSEs for 16 monitor wells and 14 recovery wells located on-site. Sample locations can be viewed in the Site Details Map provided on Figure 2. All on-site monitor and recovery wells were sampled in accordance with the following groundwater sampling schedule as approved by the NMOCD:

Table 3.1 NMOCD-Approved Groundwater Sampling Schedule

Sample Location ID	Groundwater Sampling Schedule
MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-7R, MW-8R, MW-10R, MW-11R, MW-12R, MW-13R, MW-14, MW-15, MW-16, MW-17, MW-18, RW-3R, RW-4R, RW-5R, RW-7, RW-9, RW-10R, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, RW-19	Quarterly

MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R, RW-7, RW-9, RW-13, and RW-19 were sampled in accordance with the NMOCD's email correspondence to Plains, dated December 12, 2012, regarding polycyclic aromatic hydrocarbons (PAH) which provided the following directive:

> *"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 0.001 mg/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)."*

3.1 Groundwater Sampling Methodology

Static fluid levels were gauged with an oil-water interface probe to the nearest hundredth of a foot for all on-site monitor and recovery wells. If the well was sampleable, then 3 well casing volumes of groundwater were purged prior to sample collection. Hand-bailing, using clean disposable polyvinyl chloride (PVC) bailers, was the method used for groundwater purging. The purged groundwater was stored into an above-ground storage tank (AST) located at the Site.

Laboratory-supplied containers were filled with groundwater directly from the PVC bailer used for purging, then placed on ice and chilled to a temperature of approximately 4° C. All groundwater samples were analyzed for BTEX by Method 8021B. A duplicate sample was generally collected for every 12 wells and analyzed for BTEX by Method 8021B. During the fourth quarter of 2021, select sample locations were analyzed for polycyclic aromatic hydrocarbons (PAH) by Method 8270C-SIM. All groundwater samples were analyzed by Pace Analytical Laboratory in Mt. Juliet, Tennessee. Certified Laboratory Reports and Chain-of-Custody are provided in Appendix C. Monitor and recovery wells containing measurable amount of light-aqueous phase liquids (LNAPL) were not sampled.

3.2 Laboratory Analytical Results Summary

BTEX analytical results for GWSEs conducted during 2020 and 2021 are included in Table 2. BTEX concentrations for the quarterly GWSEs conducted in 2021 are shown on Figure 7, Figure 8, Figure 9, and Figure 10. A summary of PAH analytical results is shown in Table 3. All analytical results are summarized using the NMWQCC Human Health Standards found in Table 2.1.

3.2.1 First Quarter Summary

On February 23, 2021, GHD collected groundwater samples for 14 monitor wells and 4 recovery wells. Approximately 195 gallons (gals) of groundwater were purged and stored in the on-site AST. Analytical results indicated benzene concentrations above 0.01 mg/L in MW-8R, with no other Site wells exceeding the benzene standard. None of the Site wells exhibited toluene, ethylbenzene or xylenes concentrations above the NMWQCC criteria. Results for the analyses of the initial and field duplicate groundwater samples collected at MW-2R and MW-4R were within acceptable ranges.

No groundwater samples were collected at RW-3R, RW-4R, RW-9, RW-10R, RW-16, RW-17, and RW-18 due to measurable amounts of LNAPL gauged in the wells. MW-14, MW-15, RW-7, RW-11, and RW-13 were not sampled due to having an insufficient amount of groundwater.

3.2.2 Second Quarter Summary

On May 21, 2021, GHD collected groundwater samples for 13 monitor wells and 4 recovery wells. Approximately 179 gals of groundwater were purged and stored in the on-site AST. Analytical results indicated benzene concentrations above 0.01 mg/L standard in MW-8R, with no other Site wells exceeding the benzene standard. None of the Site wells exhibited toluene, ethylbenzene, or total xylenes concentrations above the NMWQCC criteria. Results of the analyses of the initial and field duplicate groundwater samples collected at MW-1R and RW-19 were within acceptable ranges.

No groundwater samples were collected at RW-3R, RW-4R, RW-9, RW-10R, RW-16, RW-17, and RW-18 due to measurable amounts of LNAPL gauged in the wells. MW-14, MW-15, MW-16, RW-7, RW-11, and RW-13 were not sampled due to having an insufficient amount of groundwater.

3.2.3 Third Quarter Summary

On August 13, 2021, GHD collected groundwater samples for 13 monitor wells and 4 recovery wells. Approximately 184 gals of groundwater were purged and stored in the on-site AST. Analytical results indicated that the benzene concentrations in MW-8R was 0.0573 mg/L and was the only well to have concentrations above the regulatory level. None of the groundwater samples analyzed exhibited toluene, ethylbenzene, or total xylenes concentrations above the NMWQCC criteria. Results of the analyses of the initial and field duplicate groundwater samples collected at MW-2R and MW-10R were within acceptable ranges.

No groundwater samples were collected at RW-3R, RW-4R, RW-9, RW-10R, RW-16, RW-17, and RW-18 due to measurable amounts of LNAPL gauged in the wells. MW-14, MW-15, MW-16, RW-7, RW-11, and RW-13 were not sampled due to having and insufficient amount of groundwater.

3.2.4 Fourth Quarter Summary

On November 12, 2021, GHD collected groundwater samples for 13 monitor wells and 4 recovery wells. Approximately 178 gals of groundwater were purged and disposed into the on-site AST. None of the groundwater samples exhibited BTEX, benzo(a)pyrene, or combined naphthalene and monomethylnapthalenes concentrations above the NMWQCC criteria. Results for the analyses of the initial and field duplicate groundwater samples collected at MW-8R and MW-13R were within acceptable ranges.

No groundwater samples were collected at RW-3R, RW-4R, RW-9, RW-10R, RW-16, RW-17, and RW-18 due to measurable amounts of LNAPL gauged in the wells. MW-14, MW-15, MW-16, RW-7, RW-11, and RW-13 were not sampled due having an insufficient amount of groundwater.

4. Potentiometric Surface and Gradient Summary

During the quarterly GWSEs, GHD conducted gauging events prior to groundwater sample collection. Groundwater flow is generally toward the northeast, which is consistent with historical

data. The average gradient of the potentiometric surface during 2021 is 0.0010 feet per foot (ft./ft.). The annual elevation of the potentiometric surface indicates an average decline of 0.27 ft. during 2021. Monthly gauging and elevation of the potentiometric surface data for 2020-2021 are provided in Table 1. Quarterly groundwater gradient maps are provided in Figure 3, Figure 4, Figure 5, and Figure 6.

5. Remediation Activities

GHD conducts routine operation and maintenance for the on-site pneumatic LNAPL-only skimmer pump system (system). LNAPL thicknesses for the quarterly gauging events conducted in 2021 are shown on Figure 7, Figure 8, Figure 9, and Figure 10. The system operates two pumps which are moved between various wells on a quarterly basis based on an assessment of LNAPL thicknesses during gauging events. During 2021, pumps operated in RW-3R, RW-16, RW-17 and RW-18. The system operated for 218 days in 2021, and approximately 200.18 gals of LNAPL and 568.94 gals of groundwater were removed from the monitor and recovery wells in 2021. All fluids recovered from the pumps were transferred to the on-site AST and later disposed at a licensed disposal facility as directed by Plains.

6. Summary of Findings

Based on GWSE and remedial activities performed at the Site in 2021, the following summary of findings is presented:

- LNAPL was present in ten (10) recovery wells (RW-3R, RW-4R, RW-9, RW-10R, RW-13, RW-14, RW-15, RW-16, RW-17 and RW-18). The average LNAPL thickness is 0.73 ft. The maximum LNAPL thickness was at RW-18 in February 2021, which was 3.22 ft. The minimum LNAPL thickness was at RW-10R and RW-16 in February 2021, which was 0.07 ft. at both wells. Charts of LNAPL Thickness Versus Time are provided in Appendix A.
- Pumps are currently operating in RW-17 and RW-18 due to having the highest LNAPL thicknesses. A third pump historically operates in RW-16, but it has been inoperable since February 2021 due to damaged parts.
    - Approximately 17,964.83 gals (427.73 bbls) of LNAPL have been recovered by the system since the start of the LNAPL abatement program in 2001.
- Benzene concentrations are consistently above NMWQCC criteria for MW-8R. Charts of Dissolved Benzene Concentrations Versus Time are provided in Appendix B.
    - Historically, RW-10R has exhibited benzene concentrations exceeding NMWQCC criteria but started exhibiting measurable amounts of LNAPL. The LNAPL thicknesses have been increasing since August 2020 and is currently at 0.22 ft.
    - Historically, RW-13 has exhibited benzene concentrations exceeding NMWQCC criteria. Since May 2019 there has been an insufficient amount of water to sample the well.

- MW-14, MW-15, MW-16, RW-7, and RW-11 are dry wells.
- Fluctuations in the elevation of the potentiometric surface can be attributed to the on-site removal of groundwater and LNAPL.

7. Recommendations

Based upon the data and conclusions presented in this Report, the following are recommended for 2022:

- Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis. Repair the third pump and re-install into RW-16.
- Conduct LNAPL abatement via hand-bailing on a weekly basis for recovery wells that have a measurable amount of LNAPL, but no pump installed.
- Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site.
- Continue NMOCD-approved annual GWSE for PAH by Method 8270C for RW-7, RW-9, and RW-13 as applicable.
- MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R, and RW-19 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore these wells will be removed from the annual PAH sampling schedule unless they are re-impacted by LNAPL. RW-9 cannot be sampled due to measurable amount of LNAPL being present. RW-7 and RW-13 cannot be sampled due to being dry or having insignificant amounts of groundwater to sample.

All of which is Respectfully Submitted,

GHD

Rebecca Haskell
Senior Project Manager

Tom Larson
Midland Operations Manager

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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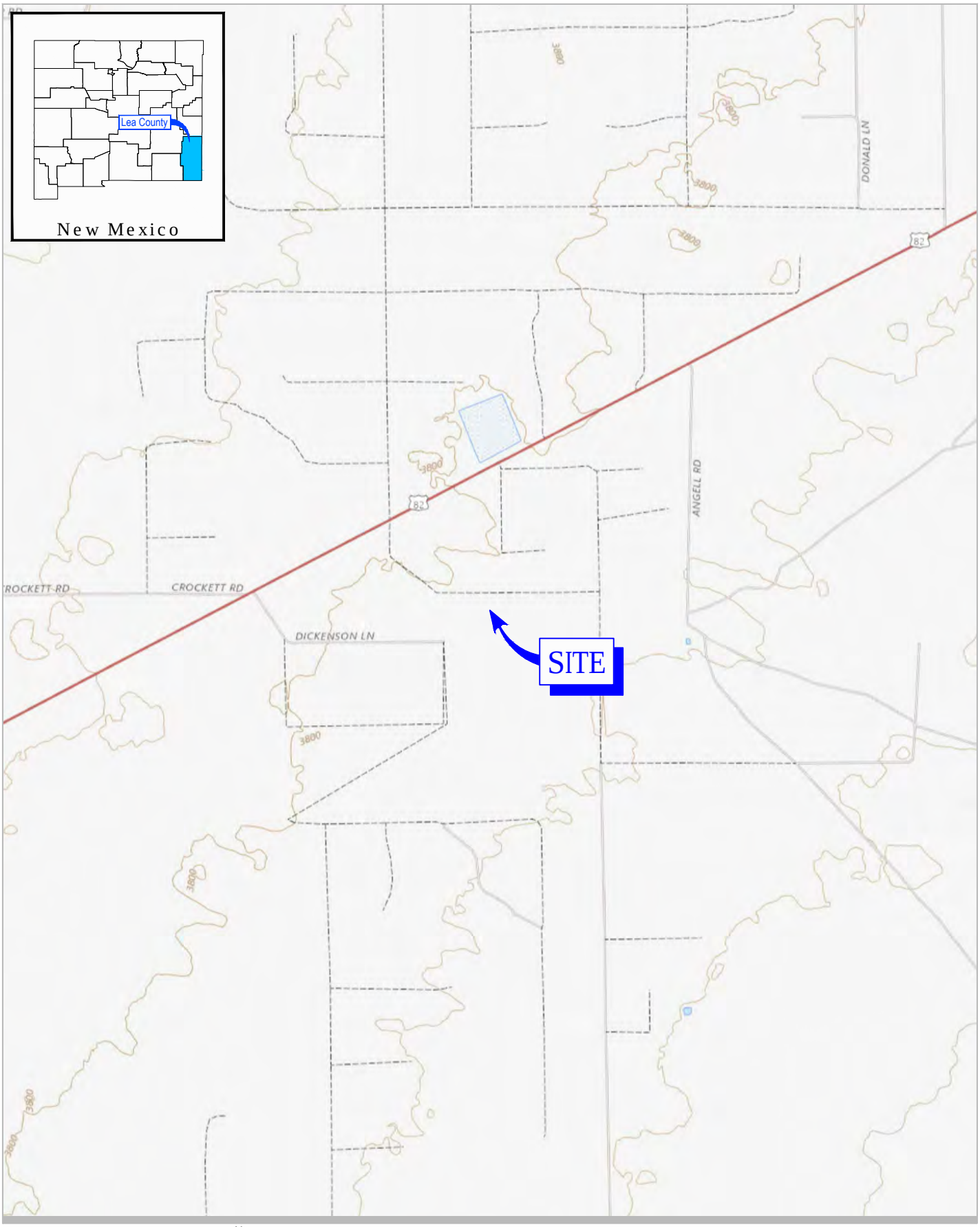
Figures



0 1000 2000 ft

N

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

Project No. 11209899
Date May 2021

SITE LOCATION MAP

FIGURE 1

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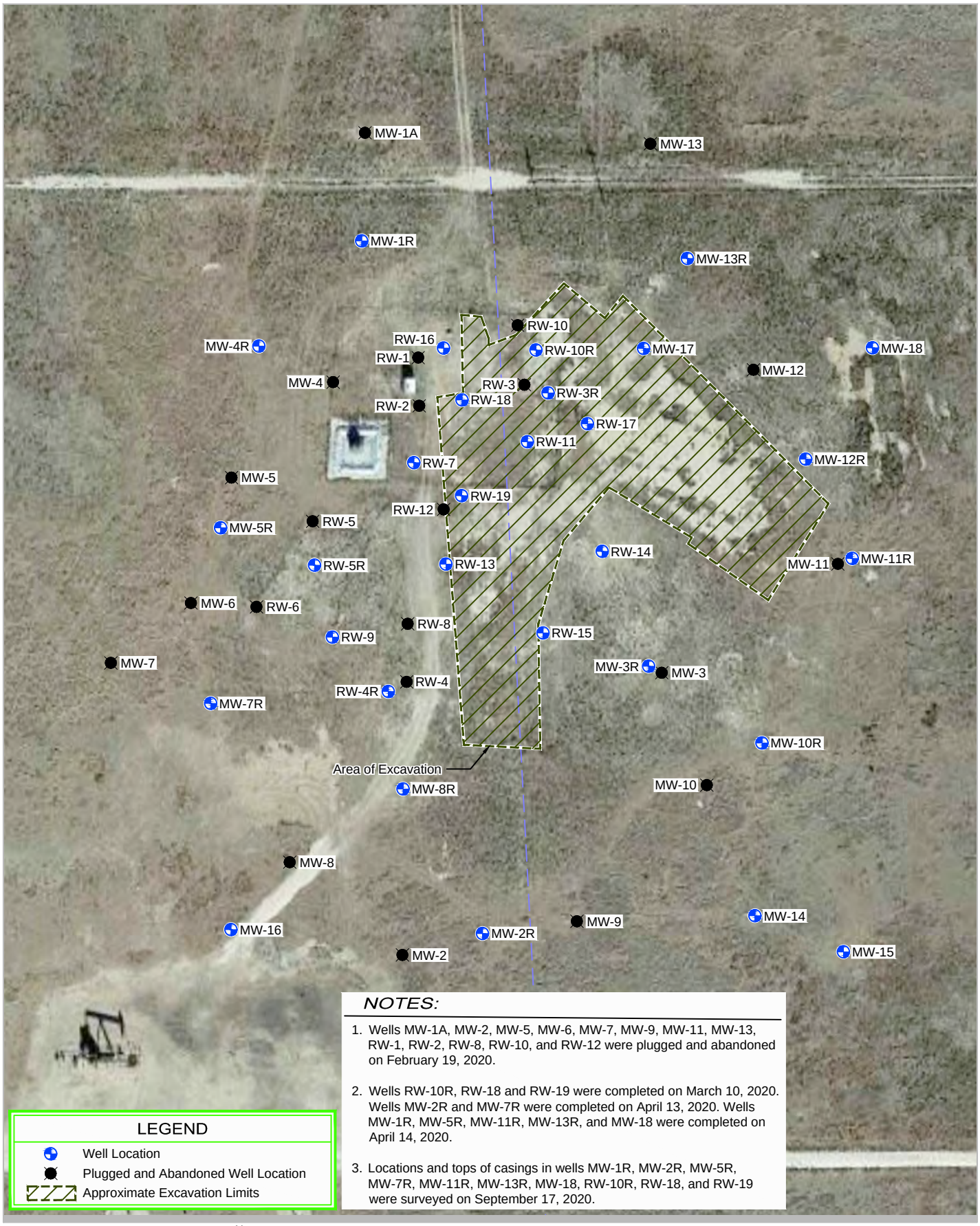

NOTES:

1. Wells MW-1A, MW-2, MW-5, MW-6, MW-7, MW-9, MW-11, MW-13, RW-1, RW-2, RW-8, RW-10, and RW-12 were plugged and abandoned on February 19, 2020.
2. Wells RW-10R, RW-18 and RW-19 were completed on March 10, 2020. Wells MW-2R and MW-7R were completed on April 13, 2020. Wells MW-1R, MW-5R, MW-11R, MW-13R, and MW-18 were completed on April 14, 2020.
3. Locations and tops of casings in wells MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18, and RW-19 were surveyed on September 17, 2020.

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Approximate Excavation Limits

0 50 100 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

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PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

Project No. 11209899
Date May 2021

SITE DETAILS MAP

FIGURE 2

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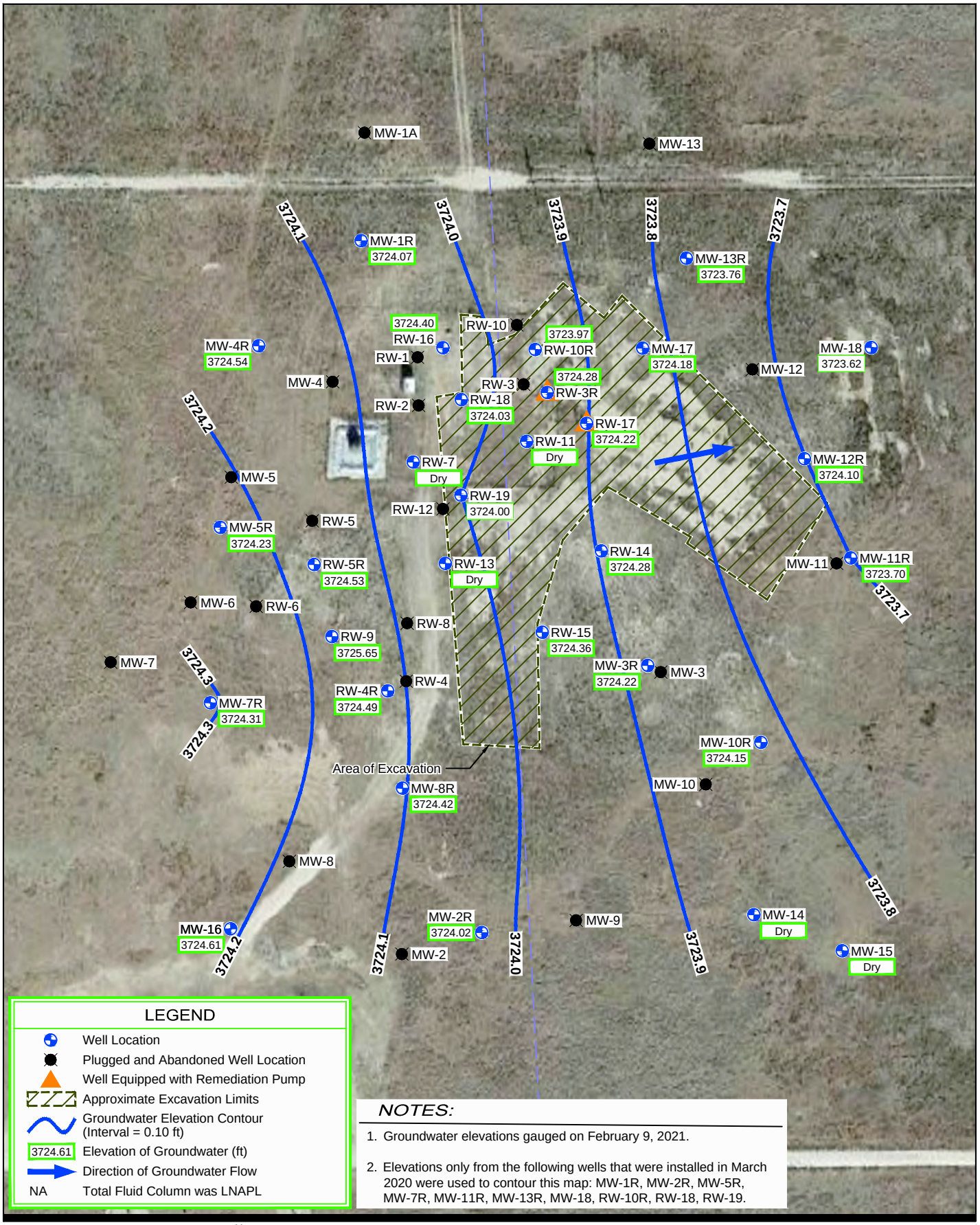

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.10 ft)
- 3724.61 Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA Total Fluid Column was LNAPL

NOTES:

1. Groundwater elevations gauged on February 9, 2021.
2. Elevations only from the following wells that were installed in March 2020 were used to contour this map: MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18, RW-19.

0 50 100 ft

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

Project No. 11209899
Date February 2022

GROUNDWATER GRADIENT MAP
FEBRUARY 9, 2021

FIGURE 3

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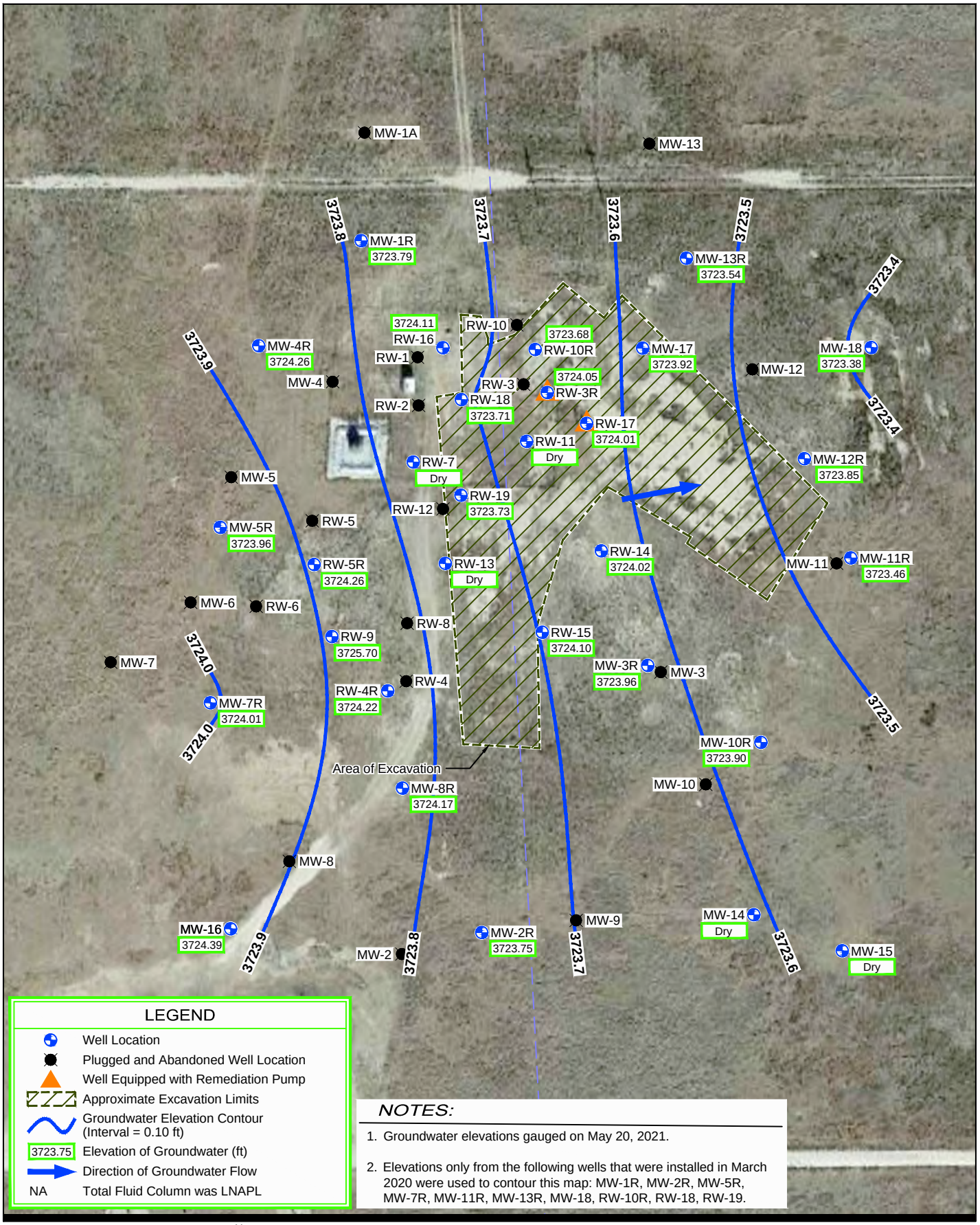

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.10 ft)
- 3723.75 Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA Total Fluid Column was LNAPL

NOTES:

1. Groundwater elevations gauged on May 20, 2021.
2. Elevations only from the following wells that were installed in March 2020 were used to contour this map: MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18, RW-19.

0 50 100 ft

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

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GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

GROUNDWATER GRADIENT MAP
MAY 20, 2021

Project No. 11209899
Date February 2022

FIGURE 4

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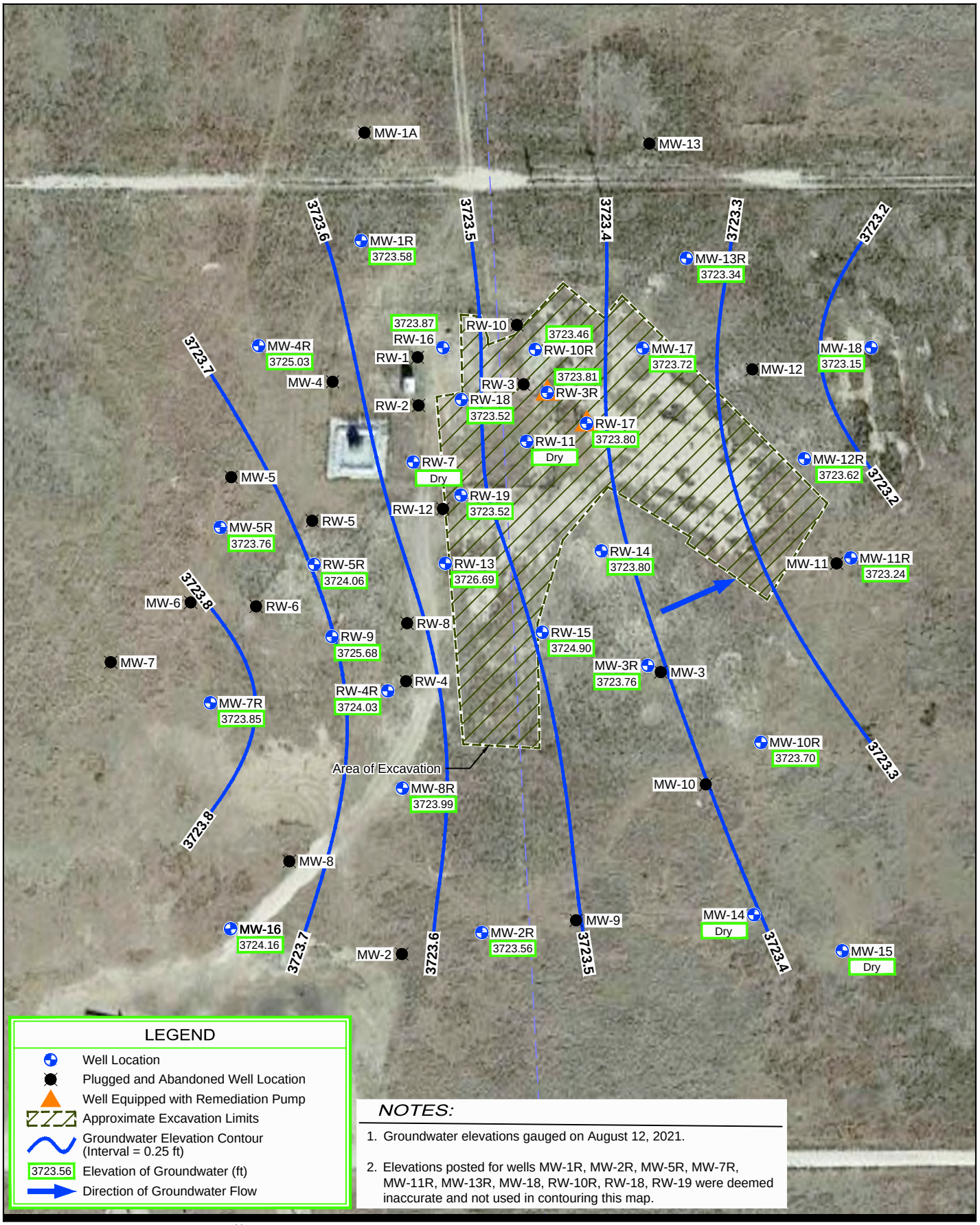

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.25 ft)
- 3723.56 Elevation of Groundwater (ft)
- Direction of Groundwater Flow

NOTES:

1. Groundwater elevations gauged on August 12, 2021.
2. Elevations posted for wells MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18, RW-19 were deemed inaccurate and not used in contouring this map.

0 50 100 ft

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

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GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

GROUNDWATER GRADIENT MAP
AUGUST 12, 2021

Project No. 11209899
Date February 2022

FIGURE 5

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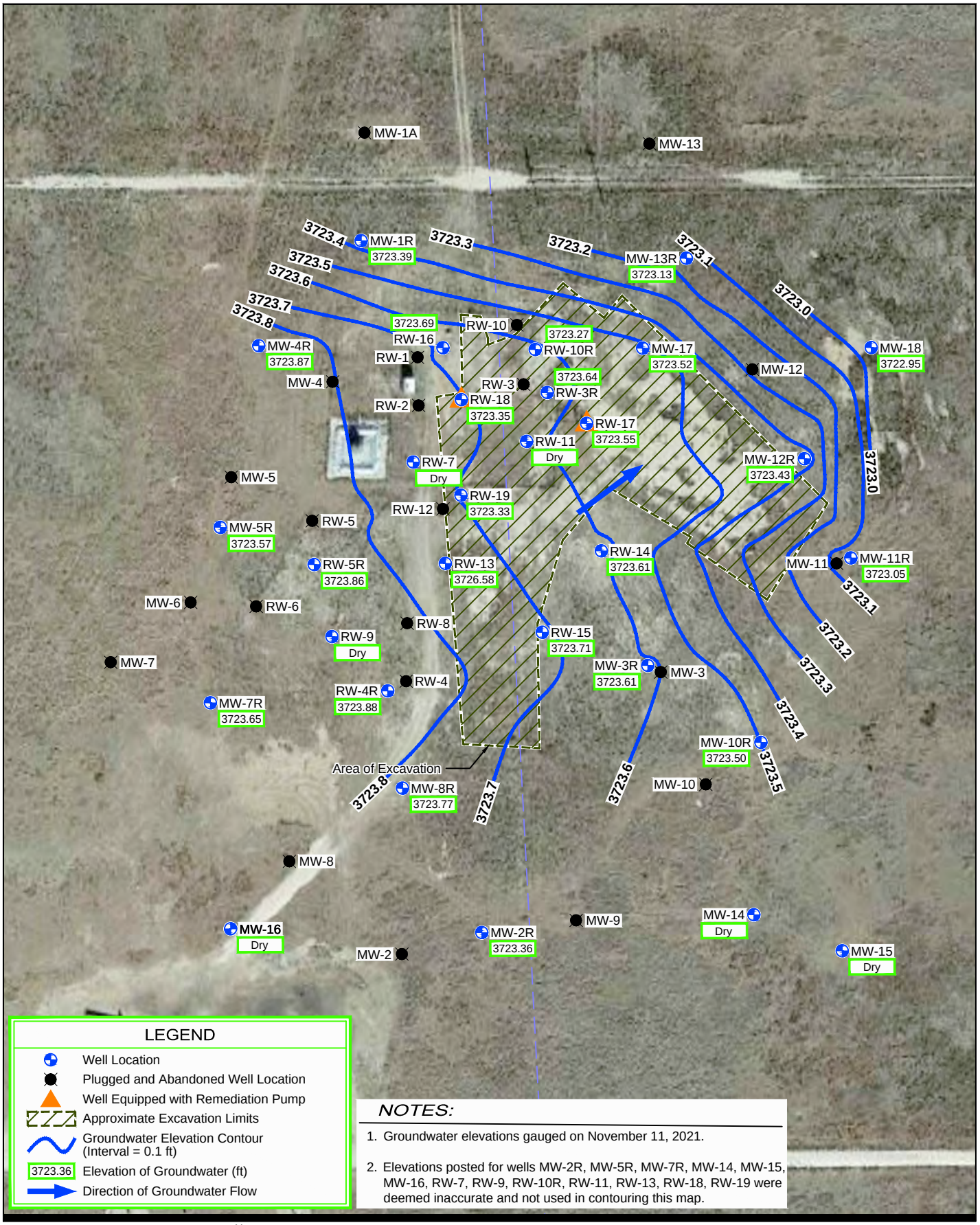

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.1 ft)
- 3723.36 Elevation of Groundwater (ft)
- Direction of Groundwater Flow

NOTES:

1. Groundwater elevations gauged on November 11, 2021.
2. Elevations posted for wells MW-2R, MW-5R, MW-7R, MW-14, MW-15, MW-16, RW-7, RW-9, RW-10R, RW-11, RW-13, RW-18, RW-19 were deemed inaccurate and not used in contouring this map.

0 50 100 ft

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

GROUNDWATER GRADIENT MAP
NOVEMBER 11, 2021

Project No. 11209899
Date February 2022

FIGURE 6

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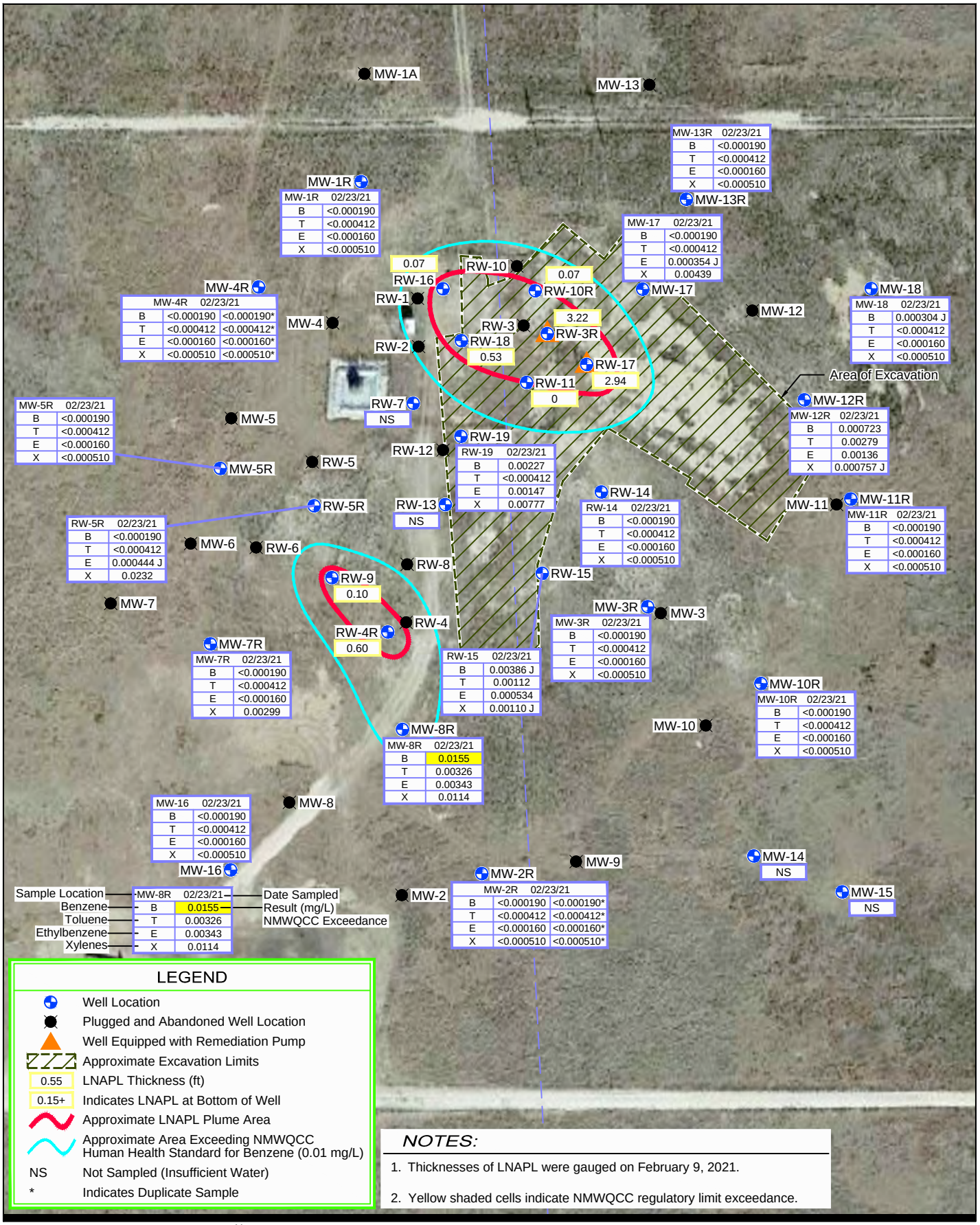

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Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

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GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

LNAPL THICKNESS AND GROUNDWATER
BTEX CONCENTRATION MAP
FEBRUARY 23, 2021

Project No. 11209899
Date February 2022

FIGURE 7

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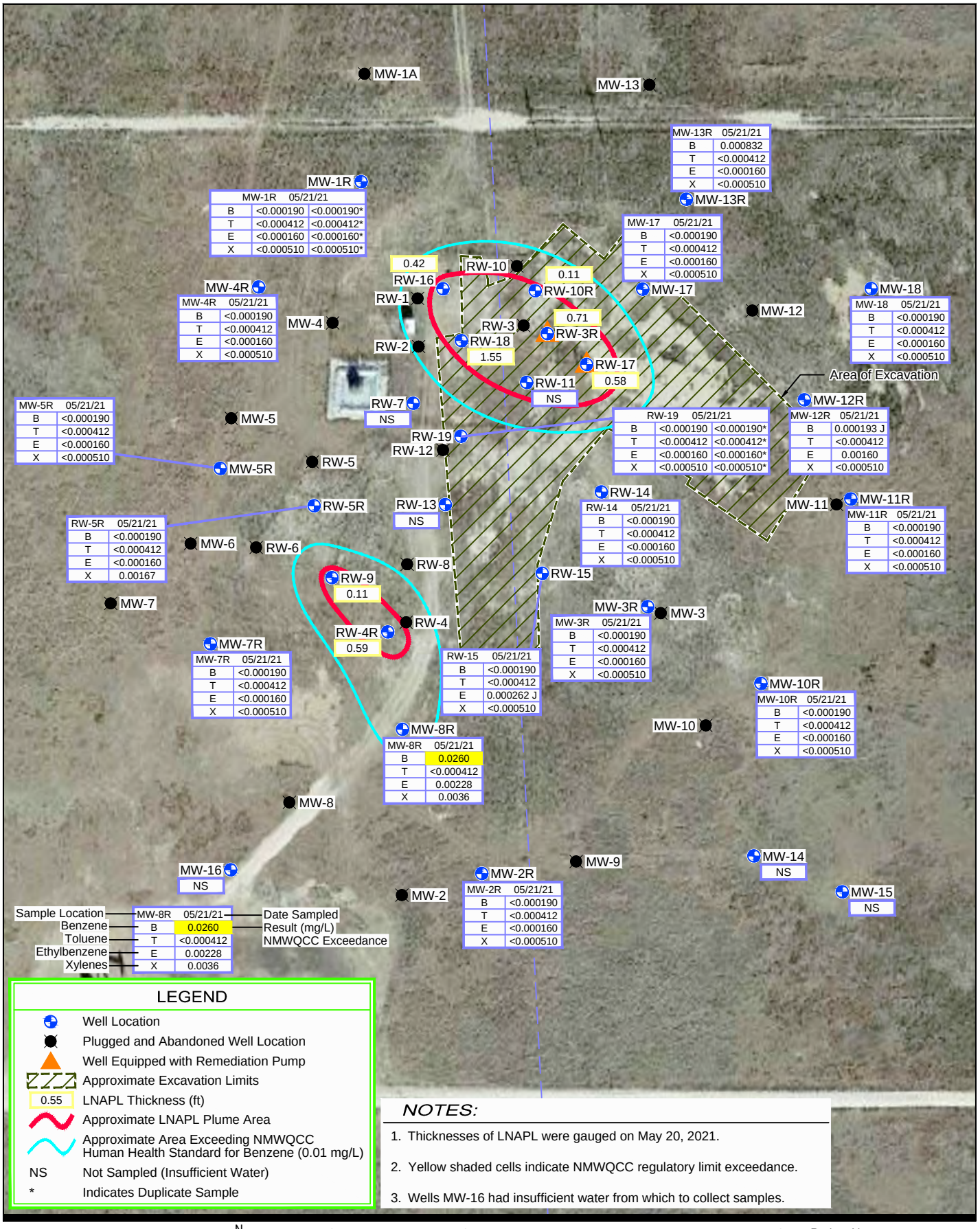


GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

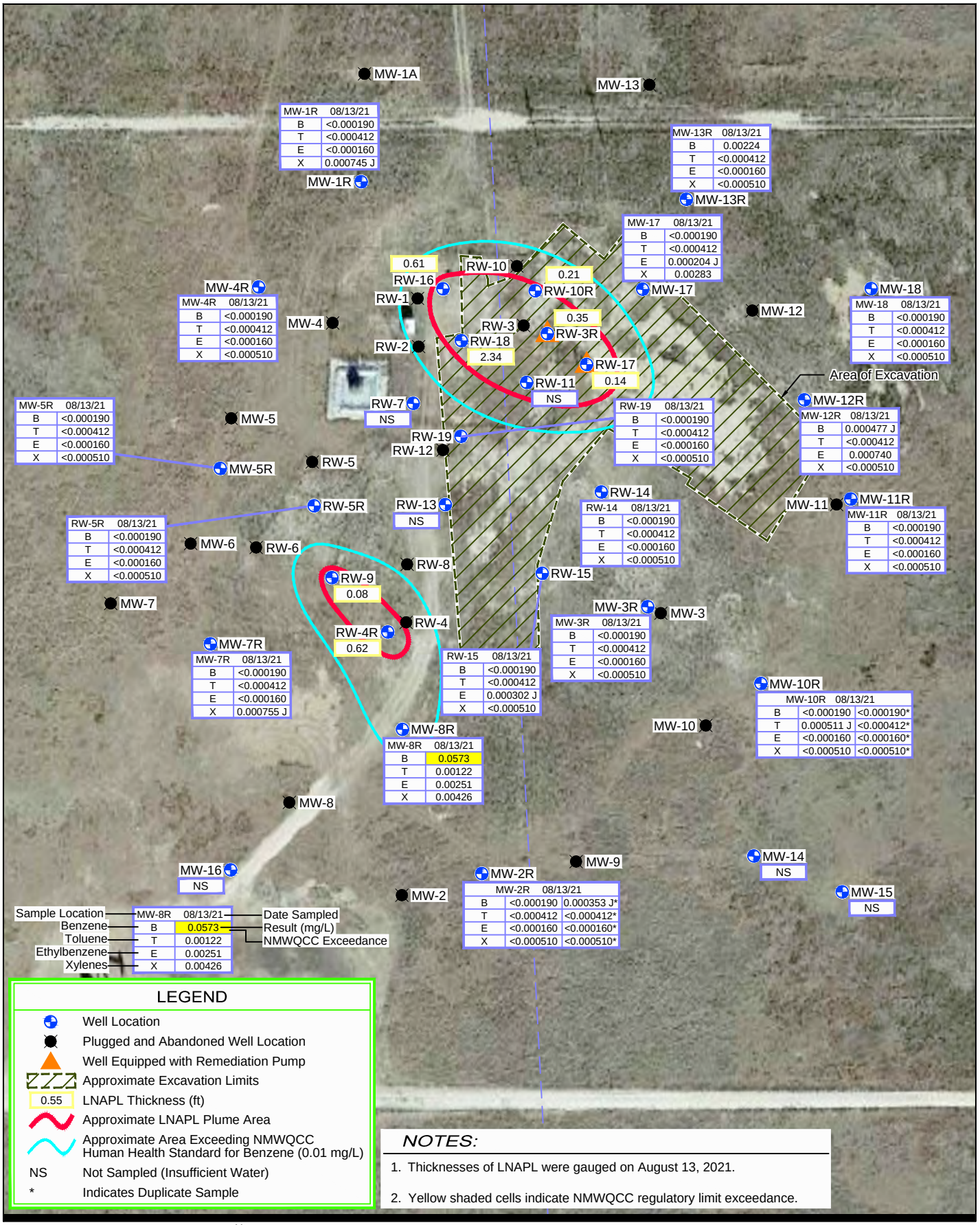
LNAPL THICKNESS AND GROUNDWATER
BTEX CONCENTRATION MAP
MAY 21, 2021

Project No. 11209899
Date February 2022

FIGURE 8

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209899\Digital_Design\ACAD 2017\Figures\11209899(GWR 2021)\11209899 GHD 0000 RPT EN 0101_DL 001.dwg
Plot Date: 09 February 2022 2:54 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West



0 50 100 ft

Coordinate System: NAD 1983 (2011) StatePlane- New Mexico East (US Feet)

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

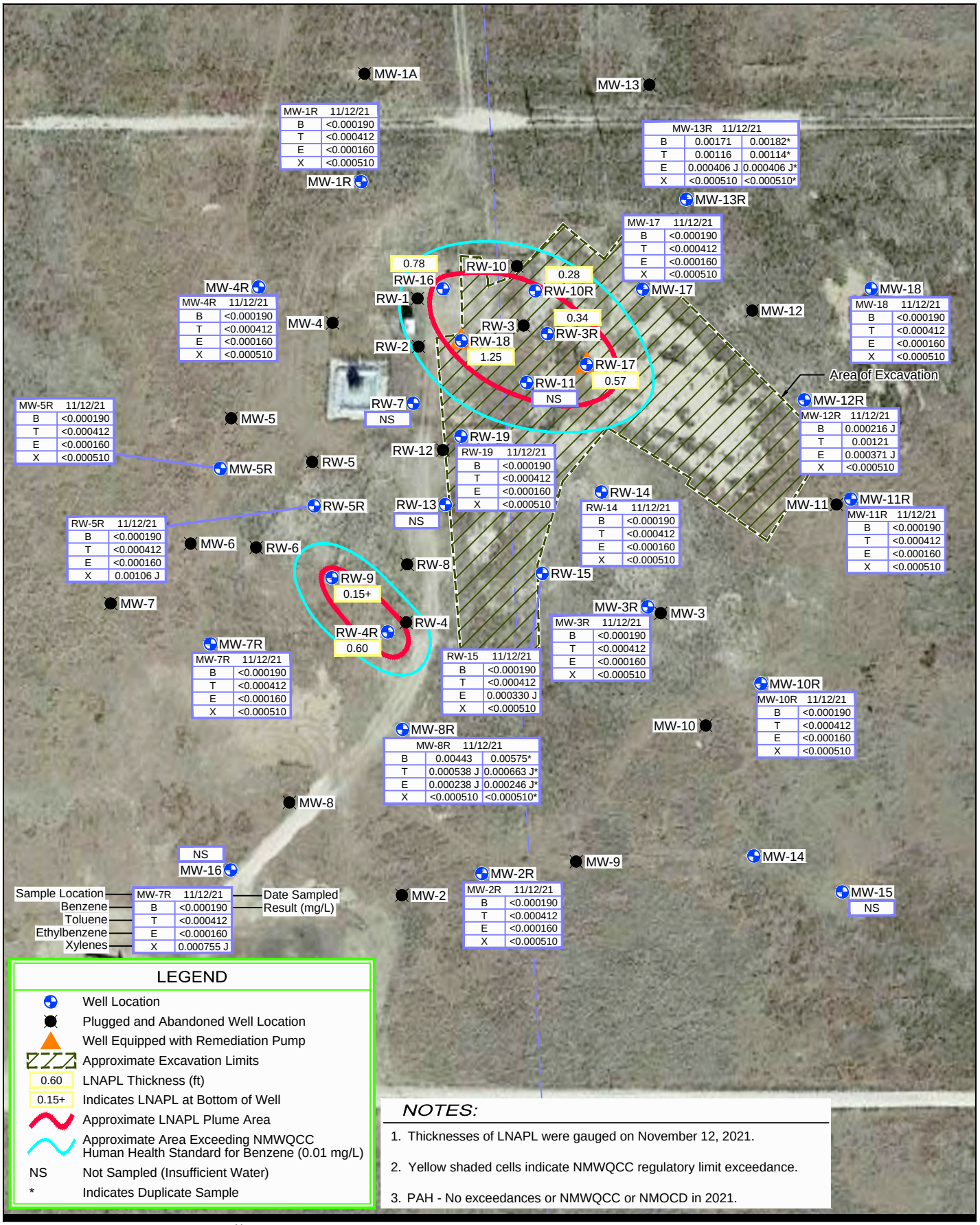
LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP
AUGUST 13, 2021

Project No. 11209899
Date February 2022

FIGURE 9

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209899\Digital_Design\ACAD 2017\Figures\11209899(GWR 2021)\11209899 GHD 0000 RPT EN 0101_DL 001.dwg
Plot Date: 09 February 2022 2:54 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West



0 50 100 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

LNAPL THICKNESS AND GROUNDWATER
BTEX CONCENTRATION MAP
NOVEMBER 12, 2021

Project No. 11209899
Date February 2022

FIGURE 10

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209899\Digital_Design\ACAD 2017\Figures\11209899(GWR 2021)\11209899 GHD 0000 RPT EN 0101_DL 001.dwg
Plot Date: 09 February 2022 2:53 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West

Tables

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-1A	P&A	2/19/20								
MW-1R	3800.69	4/16/20	75.77	-	0.00	3724.92	93.03	60-90 (2 in.)	-	-
MW-1R	3800.69	5/1/20	75.89	-	0.00	3724.80	-	-	-	-
MW-1R	3800.69	5/12/20	75.90	-	0.00	3724.79	-	-	9.0	-
MW-1R	3800.69	6/19/20	76.01	-	0.00	3724.68	-	-	-	-
MW-1R	3800.69	7/29/20	76.12	-	0.00	3724.57	-	-	-	-
MW-1R	3800.69	8/24/20	76.17	-	0.00	3724.52	-	-	-	-
MW-1R	3800.69	9/14/20	76.25	-	0.00	3724.44	-	-	9.0	-
MW-1R	3800.69	11/2/20	76.37	-	0.00	3724.32	-	-	8.5	-
MW-1R	3800.69	12/11/20	76.48	-	0.00	3724.21	-	-	-	-
MW-1R	3800.69	1/26/21	76.62	-	0.00	3724.07	-	-	-	-
MW-1R	3800.69	2/9/21	76.62	-	0.00	3724.07	92.72	-	8.0	-
MW-1R	3800.69	3/25/21	76.75	-	0.00	3723.94	-	-	-	-
MW-1R	3800.69	4/28/21	76.83	-	0.00	3723.86	-	-	-	-
MW-1R	3800.69	5/20/21	76.90	-	0.00	3723.79	-	-	8.0	-
MW-1R	3800.69	7/26/21	77.06	-	0.00	3723.63	-	-	-	-
MW-1R	3800.69	8/12/21	77.11	-	0.00	3723.58	92.75	-	8.0	-
MW-1R	3800.69	9/28/21	77.22	-	0.00	3723.47	92.72	-	-	-
MW-1R	3800.69	10/25/21	77.26	-	0.00	3723.43	92.72	-	-	-
MW-1R	3800.69	11/11/21	77.30	-	0.00	3723.39	92.72	-	7.5	-
MW-1R	3800.69	12/22/21	77.39	-	0.00	3723.30	92.72	-	-	-
MW-2	P&A	2/19/20								
MW-2R	-	4/13/20	-	-	-	-	-	-	15.0	-
MW-2R	3796.94	4/16/20	72.07	-	0.00	3724.87	92.55	60-90 (2 in.)	-	-
MW-2R	3796.94	5/1/20	72.20	-	0.00	3724.74	-	-	-	-
MW-2R	3796.94	5/12/20	72.20	-	0.00	3724.74	-	-	10.0	-
MW-2R	3796.94	6/19/20	72.31	-	0.00	3724.63	-	-	-	-
MW-2R	3796.94	7/29/20	72.42	-	0.00	3724.52	-	-	-	-
MW-2R	3796.94	8/24/20	72.50	-	0.00	3724.44	-	-	-	-
MW-2R	3796.94	9/14/20	72.55	-	0.00	3724.39	-	-	10.0	-
MW-2R	3796.94	11/2/20	72.68	-	0.00	3724.26	-	-	9.0	-
MW-2R	3796.94	12/11/20	72.77	-	0.00	3724.17	-	-	-	-
MW-2R	3796.94	1/26/21	72.93	-	0.00	3724.01	-	-	-	-
MW-2R	3796.94	2/9/21	72.92	-	0.00	3724.02	92.64	-	10.0	-
MW-2R	3796.94	3/25/21	73.05	-	0.00	3723.89	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-2R	3796.94	4/28/21	73.12	-	0.00	3723.82	-	-	-	-
MW-2R	3796.94	5/20/21	73.19	-	0.00	3723.75	-	-	10.0	-
MW-2R	3796.94	7/26/21	73.33	-	0.00	3723.61	-	-	-	-
MW-2R	3796.94	8/12/21	73.38	-	0.00	3723.56	92.63	-	9.5	-
MW-2R	3796.94	9/28/21	73.49	-	0.00	3723.45	92.64	-	-	-
MW-2R	3796.94	10/25/21	73.54	-	0.00	3723.40	92.64	-	-	-
MW-2R	3796.94	11/11/21	73.58	-	0.00	3723.36	92.64	-	10.0	-
MW-2R	3796.94	12/22/21	73.67	-	0.00	3723.27	92.64	-	-	-
MW-3R	3799.85	2/12/20	74.73	-	0.00	3725.12	84.29	61.5-81.5 (2 in.)	4.0	-
MW-3R	3799.85	5/1/20	74.91	-	0.00	3724.94	-	-	-	-
MW-3R	3799.85	5/12/20	74.90	-	0.00	3724.95	-	-	4.5	-
MW-3R	3799.85	6/19/20	75.00	-	0.00	3724.85	-	-	-	-
MW-3R	3799.85	7/29/20	75.11	-	0.00	3724.74	-	-	-	-
MW-3R	3799.85	8/24/20	75.18	-	0.00	3724.67	-	-	-	-
MW-3R	3799.85	9/14/20	75.23	-	0.00	3724.62	-	-	4.5	-
MW-3R	3799.85	11/2/20	75.35	-	0.00	3724.50	-	-	5.0	-
MW-3R	3799.85	12/11/20	75.44	-	0.00	3724.41	-	-	-	-
MW-3R	3799.85	1/26/21	75.59	-	0.00	3724.26	-	-	-	-
MW-3R	3799.85	2/9/21	75.63	-	0.00	3724.22	84.45	-	4.5	-
MW-3R	3799.85	3/25/21	75.74	-	0.00	3724.11	-	-	-	-
MW-3R	3799.85	4/28/21	75.81	-	0.00	3724.04	-	-	-	-
MW-3R	3799.85	5/20/21	75.89	-	0.00	3723.96	-	-	4.5	-
MW-3R	3799.85	7/26/21	76.03	-	0.00	3723.82	-	-	-	-
MW-3R	3799.85	8/12/21	76.09	-	0.00	3723.76	84.72	-	4.5	-
MW-3R	3799.85	9/28/21	76.18	-	0.00	3723.67	84.45	-	-	-
MW-3R	3799.85	10/25/21	76.20	-	0.00	3723.65	84.45	-	-	-
MW-3R	3799.85	11/11/21	76.24	-	0.00	3723.61	84.45	-	4.0	-
MW-3R	3799.85	12/22/21	76.37	-	0.00	3723.48	84.45	-	-	-
MW-4R	3799.39	2/12/20	73.94	-	0.00	3725.45	89.89	-	7.3	-
MW-4R	3799.39	5/1/20	74.12	-	0.00	3725.27	-	-	-	-
MW-4R	3799.39	5/12/20	74.14	-	0.00	3725.25	-	-	7.5	-
MW-4R	3799.39	6/19/20	74.21	-	0.00	3725.18	-	-	-	-
MW-4R	3799.39	7/29/20	74.34	-	0.00	3725.05	-	-	-	-
MW-4R	3799.39	8/24/20	74.40	-	0.00	3724.99	-	-	-	-
MW-4R	3799.39	9/14/20	74.49	-	0.00	3724.90	-	-	7.5	-
MW-4R	3799.39	11/2/20	74.59	-	0.00	3724.80	-	-	6.0	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-4R	3799.39	12/11/20	74.70	-	0.00	3724.69	-	-	-	-
MW-4R	3799.39	1/26/21	74.50	-	0.00	3724.89	-	-	-	-
MW-4R	3799.39	2/9/21	74.85	-	0.00	3724.54	90.22	-	8.0	-
MW-4R	3799.39	3/25/21	74.98	-	0.00	3724.41	-	-	-	-
MW-4R	3799.39	4/28/21	75.06	-	0.00	3724.33	-	-	-	-
MW-4R	3799.39	5/20/21	75.13	-	0.00	3724.26	-	-	8.0	-
MW-4R	3799.39	7/26/21	76.29	-	0.00	3723.10	-	-	-	-
MW-4R	3799.39	8/12/21	74.36	-	0.00	3725.03	90.23	-	8.0	-
MW-4R	3799.39	9/28/21	74.45	-	0.00	3724.94	90.22	-	-	-
MW-4R	3799.39	10/25/21	74.48	-	0.00	3724.91	90.22	-	-	-
MW-4R	3799.39	11/11/21	75.52	-	0.00	3723.87	90.22	-	7.5	-
MW-4R	3799.39	12/22/21	75.64	-	0.00	3723.75	90.22	-	-	-
MW-5	P&A	2/19/20								
MW-5R	3798.50	4/16/20	73.50	-	0.00	3725.00	92.85	60-90 (2 in.)	-	-
MW-5R	3798.50	5/1/20	73.53	-	0.00	3724.97	-	-	-	-
MW-5R	3798.50	5/12/20	73.56	-	0.00	3724.94	-	-	9.5	-
MW-5R	3798.50	6/19/20	73.64	-	0.00	3724.86	-	-	-	-
MW-5R	3798.50	7/29/20	73.77	-	0.00	3724.73	-	-	-	-
MW-5R	3798.50	8/24/20	73.81	-	0.00	3724.69	-	-	-	-
MW-5R	3798.50	9/14/20	73.90	-	0.00	3724.60	-	-	9.5	-
MW-5R	3798.50	11/2/20	74.01	-	0.00	3724.49	-	-	9.0	-
MW-5R	3798.50	12/11/20	74.11	-	0.00	3724.39	-	-	-	-
MW-5R	3798.50	1/26/21	74.26	-	0.00	3724.24	-	-	-	-
MW-5R	3798.50	2/9/21	74.27	-	0.00	3724.23	92.72	-	10.0	-
MW-5R	3798.50	3/25/21	74.39	-	0.00	3724.11	-	-	-	-
MW-5R	3798.50	4/28/21	74.48	-	0.00	3724.02	-	-	-	-
MW-5R	3798.50	5/20/21	74.54	-	0.00	3723.96	-	-	10.0	-
MW-5R	3798.50	7/26/21	74.70	-	0.00	3723.80	-	-	-	-
MW-5R	3798.50	8/12/21	74.74	-	0.00	3723.76	92.75	-	9.0	-
MW-5R	3798.50	9/28/21	74.87	-	0.00	3723.63	92.72	-	-	-
MW-5R	3798.50	10/25/21	74.89	-	0.00	3723.61	90.72	-	-	-
MW-5R	3798.50	11/11/21	74.93	-	0.00	3723.57	90.72	-	8.0	-
MW-5R	3798.50	12/22/21	75.04	-	0.00	3723.46	90.72	-	-	-
MW-6	P&A	2/19/20								

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-7	P&A	2/19/20								
MW-7R	3798.04	4/16/20	72.87	-	0.00	3725.17	92.65	60-90 (2 in.)	-	-
MW-7R	3798.04	5/1/20	72.99	-	0.00	3725.05	-	-	-	-
MW-7R	3798.04	5/12/20	73.91	-	0.00	3724.13	-	-	9.5	-
MW-7R	3798.04	6/19/20	73.10	-	0.00	3724.94	-	-	-	-
MW-7R	3798.04	7/29/20	73.22		0.00	3724.82	-	-	-	-
MW-7R	3798.04	8/24/20	73.27	-	0.00	3724.77	-	-	-	-
MW-7R	3798.04	9/14/20	73.36	-	0.00	3724.68	-	-	9.5	-
MW-7R	3798.04	11/2/20	73.48	-	0.00	3724.56	-	-	9.0	-
MW-7R	3798.04	12/11/20	73.58	-	0.00	3724.46	-	-	-	-
MW-7R	3798.04	1/26/21	73.73	-	0.00	3724.31	-	-	-	-
MW-7R	3798.04	2/9/21	73.73	-	0.00	3724.31	92.93	-	10.0	-
MW-7R	3798.04	3/25/21	73.86	-	0.00	3724.18	-	-	-	-
MW-7R	3798.04	4/28/21	73.92	-	0.00	3724.12	-	-	-	-
MW-7R	3798.04	5/20/21	74.03	-	0.00	3724.01	-	-	10.0	-
MW-7R	3798.04	7/26/21	74.13	-	0.00	3723.91	-	-	-	-
MW-7R	3798.04	8/12/21	74.19	-	0.00	3723.85	92.73	-	9.0	-
MW-7R	3798.04	9/28/21	74.31	-	0.00	3723.73	92.93	-	-	-
MW-7R	3798.04	10/25/21	74.36	-	0.00	3723.68	92.93	-	-	-
MW-7R	3798.04	11/11/21	74.39	-	0.00	3723.65	92.93	-	9.0	-
MW-7R	3798.04	12/22/21	74.50	-	0.00	3723.54	92.93	-	-	-
MW-8R	3798.47	2/12/20	73.14	-	0.00	3725.33	88.95	-	7.0	-
MW-8R	3798.47	3/18/20	-	-	-	-	-	-	3.0	-
MW-8R	3798.47	4/8/20	75.12	-	0.00	3723.35	-	-	7.5	-
MW-8R	3798.47	5/1/20	73.30	-	0.00	3725.17	-	-	-	-
MW-8R	3798.47	5/12/20	73.32	-	0.00	3725.15	-	-	7.5	-
MW-8R	3798.47	6/19/20	73.38	-	0.00	3725.09	-	-	-	-
MW-8R	3798.47	7/29/20	73.54	-	0.00	3724.93	-	-	-	-
MW-8R	3798.47	8/24/20	73.57	-	0.00	3724.90	-	-	-	-
MW-8R	3798.47	9/14/20	73.68	-	0.00	3724.79	-	-	7.5	-
MW-8R	3798.47	11/2/20	73.75	-	0.00	3724.72	-	-	7.0	-
MW-8R	3798.47	12/11/20	73.86	-	0.00	3724.61	-	-	-	-
MW-8R	3798.47	1/26/21	74.03	-	0.00	3724.44	-	-	-	-
MW-8R	3798.47	2/9/21	74.05	-	0.00	3724.42	88.77	-	7.0	-
MW-8R	3798.47	3/25/21	74.15	-	0.00	3724.32	-	-	-	-
MW-8R	3798.47	4/28/21	74.20	-	0.00	3724.27	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-8R	3798.47	5/20/21	74.30	-	0.00	3724.17	-	-	7.0	-
MW-8R	3798.47	7/26/21	74.43	-	0.00	3724.04	-	-	-	-
MW-8R	3798.47	8/12/21	74.48	-	0.00	3723.99	88.90	-	7.0	-
MW-8R	3798.47	9/28/21	74.60	-	0.00	3723.87	88.77	-	-	-
MW-8R	3798.47	10/25/21	74.65	-	0.00	3723.82	88.77	-	-	-
MW-8R	3798.47	11/11/21	74.70	-	0.00	3723.77	88.77	-	7.0	-
MW-8R	3798.47	12/22/21	74.75	-	0.00	3723.72	88,77	-	-	-
MW-9	P&A	2/19/20								
MW-10R	3797.99	2/12/20	72.95	-	0.00	3725.04	79.30	-	3.3	-
MW-10R	3797.99	5/1/20	73.12	-	0.00	3724.87	-	-		-
MW-10R	3797.99	5/12/20	73.15	-	0.00	3724.84	-	-	3.0	-
MW-10R	3797.99	6/19/20	73.21	-	0.00	3724.78	-	-	-	-
MW-10R	3797.99	7/29/20	73.35	-	0.00	3724.64	-	-	-	-
MW-10R	3797.99	8/24/20	73.41	-	0.00	3724.58	-	-	-	-
MW-10R	3797.99	9/14/20	73.47	-	0.00	3724.52	-	-	3.0	-
MW-10R	3797.99	11/2/20	73.57	-	0.00	3724.42	-	-	3.0	-
MW-10R	3797.99	12/11/20	73.66	-	0.00	3724.33	-	-	-	-
MW-10R	3797.99	1/26/21	73.82	-	0.00	3724.17	-	-	-	-
MW-10R	3797.99	2/9/21	73.84	-	0.00	3724.15	89.09	-	9.0	-
MW-10R	3797.99	3/25/21	73.95	-	0.00	3724.04	-	-	-	-
MW-10R	3797.99	4/28/21	74.02	-	0.00	3723.97	-	-	-	-
MW-10R	3797.99	7/26/21	74.25	-	0.00	3723.74	-	-	-	-
MW-10R	3797.99	5/20/21	74.09	-	0.00	3723.90	-	-	9.0	-
MW-10R	3797.99	8/12/21	74.29	-	0.00	3723.70	89.09	-	7.5	-
MW-10R	3797.99	9/28/21	74.39	-	0.00	3723.60	89.09	-	-	-
MW-10R	3797.99	10/25/21	74.44	-	0.00	3723.55	89.09	-	-	-
MW-10R	3797.99	11/11/21	74.49	-	0.00	3723.50	89.09	-	7.5	-
MW-10R	3797.99	12/22/21	74.59	-	0.00	3723.40	89.09	-	-	-
MW-11	P&A	2/19/20								
MW-11R	3798.21	4/16/20	73.66	-	0.00	3724.55	92.80	60-90 (2 in.)	-	-
MW-11R	3798.21	5/1/20	73.77	-	0.00	3724.44	-	-	-	-
MW-11R	3798.21	5/12/20	73.80	-	0.00	3724.41	-	-	9.5	-
MW-11R	3798.21	6/19/20	73.91	-	0.00	3724.30	-	-	-	-
MW-11R	3798.21	7/29/20	74.00	-	0.00	3724.21	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-11R	3798.21	8/24/20	74.07	-	0.00	3724.14	-	-	-	-
MW-11R	3798.21	9/14/20	74.13	-	0.00	3724.08	-	-	9.5	-
MW-11R	3798.21	11/2/20	74.25	-	0.00	3723.96	-	-	9.0	-
MW-11R	3798.21	12/11/20	74.35	-	0.00	3723.86	-	-	-	-
MW-11R	3798.21	1/26/21	74.49	-	0.00	3723.72	-	-	-	-
MW-11R	3798.21	2/9/21	74.51	-	0.00	3723.70	92.84	-	9.0	-
MW-11R	3798.21	3/25/21	74.63	-	0.00	3723.58	-	-	-	-
MW-11R	3798.21	4/28/21	74.69	-	0.00	3723.52	-	-	-	-
MW-11R	3798.21	5/20/21	74.75	-	0.00	3723.46	-	-	9.0	-
MW-11R	3798.21	7/26/21	74.92	-	0.00	3723.29	-	-	-	-
MW-11R	3798.21	8/12/21	74.97	-	0.00	3723.24	92.88	-	9.0	-
MW-11R	3798.21	9/28/21	75.08	-	0.00	3723.13	92.84	-	-	-
MW-11R	3798.21	10/25/21	75.11	-	0.00	3723.10	92.84	-	-	-
MW-11R	3798.21	11/11/21	75.16	-	0.00	3723.05	92.84	-	8.5	-
MW-11R	3798.21	12/22/21	75.26	-	0.00	3722.95	92.84	-	-	-
MW-12R	3800.06	2/12/20	75.09	-	0.00	3724.97	80.11	-	2.0	-
MW-12R	3800.06	5/1/20	75.22	-	0.00	3724.84	-	-	-	-
MW-12R	3800.06	5/12/20	75.24	-	0.00	3724.82	-	-	2.5	-
MW-12R	3800.06	6/19/20	75.32	-	0.00	3724.74	-	-	-	-
MW-12R	3800.06	7/29/20	75.44	-	0.00	3724.62	-	-	-	-
MW-12R	3800.06	8/24/20	75.50	-	0.00	3724.56	-	-	-	-
MW-12R	3800.06	9/14/20	75.55	-	0.00	3724.51	-	-	2.5	-
MW-12R	3800.06	11/2/20	75.72	-	0.00	3724.34	-	-	2.0	-
MW-12R	3800.06	12/11/20	75.78	-	0.00	3724.28	-	-	-	-
MW-12R	3800.06	1/26/21	75.93	-	0.00	3724.13	-	-	-	-
MW-12R	3800.06	2/9/21	75.96	-	0.00	3724.10	79.56	-	2.0	-
MW-12R	3800.06	3/25/21	76.08	-	0.00	3723.98	-	-	-	-
MW-12R	3800.06	4/28/21	74.38	-	0.00	3725.68	-	-	-	-
MW-12R	3800.06	5/20/21	76.21	-	0.00	3723.85	-	-	2.0	-
MW-12R	3800.06	7/26/21	76.39	-	0.00	3723.67	79.42	-	-	-
MW-12R	3800.06	8/12/21	76.44	-	0.00	3723.62	79.48	-	1.5	-
MW-12R	3800.06	9/28/21	76.55	-	0.00	3723.51	79.56	-	-	-
MW-12R	3800.06	10/25/21	76.58	-	0.00	3723.48	79.56	-	-	-
MW-12R	3800.06	11/11/21	76.63	-	0.00	3723.43	79.56	-	0.5	-
MW-12R	3800.06	12/22/21	76.73	-	0.00	3723.33	79.56	-	-	-
MW-13	P&A	2/19/20								

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-13R	3800.21	4/16/20	75.56	-	0.00	3724.65	92.70	-	-	-
MW-13R	3800.21	5/1/20	75.68	-	0.00	3724.53	-	-	-	-
MW-13R	3800.21	5/12/20	75.70	-	0.00	3724.51	-	-	8.5	-
MW-13R	3800.21	6/19/20	75.82	-	0.00	3724.39	-	-	-	-
MW-13R	3800.21	7/29/20	75.90	-	0.00	3724.31	-	-	-	-
MW-13R	3800.21	8/24/20	75.98	-	0.00	3724.23	-	-	-	-
MW-13R	3800.21	9/14/20	76.04	-	0.00	3724.17	-	-	8.5	-
MW-13R	3800.21	11/2/20	75.15	-	0.00	3725.06	-	-	7.5	-
MW-13R	3800.21	12/11/20	76.26	-	0.00	3723.95	-	-	-	-
MW-13R	3800.21	1/26/21	76.41	-	0.00	3723.80	-	-	-	-
MW-13R	3800.21	2/9/21	76.45	-	0.00	3723.76	92.50	-	8.0	-
MW-13R	3800.21	3/25/21	76.55	-	0.00	3723.66	-	-	-	-
MW-13R	3800.21	4/28/21	76.62	-	0.00	3723.59	-	-	-	-
MW-13R	3800.21	5/20/21	76.67	-	0.00	3723.54	-	-	8.0	-
MW-13R	3800.21	7/26/21	76.82	-	0.00	3723.39				
MW-13R	3800.21	8/12/21	76.87	-	0.00	3723.34	92.52	-	8.0	-
MW-13R	3800.21	9/28/21	76.98	-	0.00	3723.23	92.50	-	-	-
MW-13R	3800.21	10/25/21	77.01	-	0.00	3723.20	92.50	-	-	-
MW-13R	3800.21	11/11/21	77.08	-	0.00	3723.13	92.50	-	7.5	-
MW-13R	3800.21	12/22/21	77.14	-	0.00	3723.07	92.50	-	-	-
MW-14	3798.18	2/12/20	72.94	-	-	3725.24	73.15	-	-	-
MW-14	3798.18	5/1/20	-	-	-	Dry	-	-	-	-
MW-14	3798.18	5/12/20	-	-	-	Dry	-	-	-	-
MW-14	3798.18	6/19/20	-	-	-	Dry	-	-	-	-
MW-14	3798.18	7/29/20	-	-	-	Dry	73.04	-	-	-
MW-14	3798.18	8/24/20	-	-	-	Dry	72.97	-	-	-
MW-14	3798.18	9/14/20	73.00	-	0.00	3725.18	-	-	-	-
MW-14	3798.18	11/2/20	-	-	-	Dry	72.99	-	-	-
MW-14	3798.18	12/11/20	-	-	-	Dry	73.00	-	-	-
MW-14	3798.18	1/26/21	-	-	-	Dry	72.98	-	-	-
MW-14	3798.18	2/9/21	-	-	-	Dry	73.10	-	-	-
MW-14	3798.18	3/25/21	-	-	-	Dry	72.98	-	-	-
MW-14	3798.18	4/28/21	-	-	-	Dry	73.05	-	-	-
MW-14	3798.18	5/20/21	-	-	-	Dry	72.96	-	-	-
MW-14	3798.18	7/26/21	-	-	-	Dry	72.48	-	-	-
MW-14	3798.18	8/12/21	-	-	-	Dry	73.03	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-14	3798.18	9/28/21	-	-	-	Dry	73.10	-	-	-
MW-14	3798.18	10/25/21	-	-	-	Dry	73.10	-	-	-
MW-14	3798.18	11/11/21	-	-	-	Dry	73.10	-	-	-
MW-14	3798.18	12/22/21	-	-	-	Dry	73.10	-	-	-
MW-15	3798.04	2/12/20	73.11	-	0.00	3724.93	74.45	-	-	-
MW-15	3798.04	5/1/20	73.44	-	0.00	3724.60	-	-	-	-
MW-15	3798.04	5/12/20	73.28	-	0.00	3724.76	-	-	-	-
MW-15	3798.04	6/19/20	73.38	-	0.00	3724.66	-	-	-	-
MW-15	3798.04	7/29/20	73.46	-	0.00	3724.58	-	-	-	-
MW-15	3798.04	8/24/20	73.52	-	0.00	3724.52	-	-	-	-
MW-15	3798.04	9/14/20	73.59	-	0.00	3724.45	-	-	-	-
MW-15	3798.04	11/2/20	-	-	-	Dry	73.65	-	-	-
MW-15	3798.04	12/11/20	-	-	-	Dry	73.67	-	-	-
MW-15	3798.04	1/26/21	-	-	-	Dry	73.62	-	-	-
MW-15	3798.04	2/9/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	3/25/21	-	-	-	Dry	73.63	-	-	-
MW-15	3798.04	4/28/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	5/20/21	-	-	-	Dry	73.62	-	-	-
MW-15	3798.04	7/26/21	-	-	-	Dry	73.62	-	-	-
MW-15	3798.04	8/12/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	9/28/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	10/25/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	11/11/21	-	-	-	Dry	73.70	-	-	-
MW-15	3798.04	12/22/21	-	-	-	Dry	73.70	-	-	-
MW-16	3798.01	2/12/20	72.48	-	0.00	3725.53	74.66	(2 in.)	0.4	-
MW-16	3798.01	5/1/20	72.70	-	0.00	3725.31	-	-	-	-
MW-16	3798.01	5/12/20	72.68	-	0.00	3725.33	-	-	0.6	-
MW-16	3798.01	6/19/20	72.83	-	0.00	3725.18	-	-	-	-
MW-16	3798.01	7/29/20	72.88	-	0.00	3725.13	-	-	-	-
MW-16	3798.01	8/24/20	72.95	-	0.00	3725.06	-	-	-	-
MW-16	3798.01	9/14/20	73.00	-	0.00	3725.01	-	-	0.0	-
MW-16	3798.01	11/2/20	73.14	-	0.00	3724.87	-	-	0.3	-
MW-16	3798.01	12/11/20	73.23	-	0.00	3724.78	-	-	-	-
MW-16	3798.01	1/26/21	73.38	-	0.00	3724.63	-	-	-	-
MW-16	3798.01	2/9/21	73.40	-	0.00	3724.61	73.97	-	0.0	-
MW-16	3798.01	3/25/21	73.52	-	0.00	3724.49	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-16	3798.01	4/28/21	73.57	-	0.00	3724.44	-	-	-	-
MW-16	3798.01	5/20/21	73.62	-	0.00	3724.39	-	-	-	-
MW-16	3798.01	7/26/21	73.76	-	0.00	3724.25	73.90	-	-	-
MW-16	3798.01	8/12/21	73.85	-	0.00	3724.16	73.90	-	-	-
MW-16	3798.01	9/28/21	-	-	-	Dry	73.97	-	-	-
MW-16	3798.01	10/25/21	-	-	-	Dry	73.97	-	-	-
MW-16	3798.01	11/11/21	-	-	-	Dry	73.97	-	-	-
MW-16	3798.01	12/22/21	-	-	-	Dry	73.97	-	-	-
MW-17	3800.10	2/12/20	75.00	-	0.00	3725.10	91.01	-	8.0	-
MW-17	3800.10	4/8/20	73.25	-	0.00	3726.85	-	-	7.5	-
MW-17	3800.10	5/1/20	75.18	-	0.00	3724.92	-	-	-	-
MW-17	3800.10	5/12/20	75.19	-	0.00	3724.91	-	-	8.0	-
MW-17	3800.10	6/19/20	75.27	-	0.00	3724.83	-	-	-	-
MW-17	3800.10	7/29/20	75.40	-	0.00	3724.70	-	-	-	-
MW-17	3800.10	8/24/20	75.45	-	0.00	3724.65	-	-	-	-
MW-17	3800.10	9/14/20	75.51	-	0.00	3724.59	-	-	8.0	-
MW-17	3800.10	11/2/20	75.66	-	0.00	3724.44	-	-	8.0	-
MW-17	3800.10	12/11/20	75.73	-	0.00	3724.37	-	-	-	-
MW-17	3800.10	1/26/21	75.90	-	0.00	3724.20	-	-	-	-
MW-17	3800.10	2/9/21	75.92	-	0.00	3724.18	91.17	-	8.0	-
MW-17	3800.10	3/25/21	76.06	-	0.00	3724.04	-	-	-	-
MW-17	3800.10	4/28/21	76.08	-	0.00	3724.02	-	-	-	-
MW-17	3800.10	5/20/21	76.18	-	0.00	3723.92	-	-	8.0	-
MW-17	3800.10	7/26/21	76.33	-	0.00	3723.77	-	-	-	-
MW-17	3800.10	8/12/21	76.38	-	0.00	3723.72	91.20	-	7.5	-
MW-17	3800.10	9/28/21	76.50	-	0.00	3723.60	91.17	-	-	-
MW-17	3800.10	10/25/21	76.53	-	0.00	3723.57	91.17	-	-	-
MW-17	3800.10	11/11/21	76.58	-	0.00	3723.52	91.17	-	7.0	-
MW-17	3800.10	12/22/21	76.68	-	0.00	3723.42	91.17	-	-	-
MW-18	3799.94	4/16/20	74.68	-	0.00	3725.26	92.81	60-90 (2 in.)	-	-
MW-18	3799.94	5/1/20	75.57	-	0.00	3724.37	-	-	-	-
MW-18	3799.94	5/12/20	75.60	-	0.00	3724.34	-	-	8.5	-
MW-18	3799.94	6/19/20	75.72	-	0.00	3724.22	-	-	-	-
MW-18	3799.94	7/29/20	75.82	-	0.00	3724.12	-	-	-	-
MW-18	3799.94	8/24/20	75.87	-	0.00	3724.07	-	-	-	-
MW-18	3799.94	9/14/20	75.94	-	0.00	3724.00	-	-	8.5	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-18	3799.94	11/2/20	76.05	-	0.00	3723.89	-	-	8.0	-
MW-18	3799.94	12/11/20	76.15	-	0.00	3723.79	-	-	-	-
MW-18	3799.94	1/26/21	76.30	-	0.00	3723.64	-	-	-	-
MW-18	3799.94	2/9/21	76.32	-	0.00	3723.62	92.88	-	8.0	-
MW-18	3799.94	3/25/21	76.43	-	0.00	3723.51	-	-	-	-
MW-18	3799.94	4/28/21	76.49	-	0.00	3723.45	-	-	-	-
MW-18	3799.94	5/20/21	76.56	-	0.00	3723.38	-	-	8.0	-
MW-18	3799.94	7/26/21	76.73	-	0.00	3723.21	-	-	-	-
MW-18	3799.94	8/12/21	76.79	-	0.00	3723.15	92.87	-	8.0	-
MW-18	3799.94	9/28/21	76.88	-	0.00	3723.06	92.88	-	-	-
MW-18	3799.94	10/25/21	76.84	-	0.00	3723.10	92.88	-	-	-
MW-18	3799.94	11/11/21	76.99	-	0.00	3722.95	92.88	-	8.0	-
MW-18	3799.94	12/22/21	77.08	-	0.00	3722.86	92.88	-	-	-
RW-1	P&A	2/19/20								
RW-2	P&A	2/19/20								
RW-3R	3800.09	1/8/20	-	-	-	-	-	-	1.0	-
RW-3R	3800.09	1/29/20	-	-	-	-	-	-	1.0	-
RW-3R	3800.09	2/11/20	76.27	74.59	1.68	3725.18	84.17	-	-	-
RW-3R	3800.09	2/25/20	-	-	-	-	-	-	1.0	-
RW-3R	3800.09	5/1/20	-	-	-	-	-	-	-	-
RW-3R	3800.09	5/12/20	75.68	74.95	0.73	3725.00	-	-	-	-
RW-3R	3800.09	6/19/20	-	-	-	-	-	-	-	-
RW-3R	3800.09	7/29/20	-	-	-	-	-	-	-	-
RW-3R	3800.09	8/24/20	-	-	-	-	-	-	-	-
RW-3R	3800.09	9/14/20	76.03	75.27	0.76	3724.68	-	-	-	-
RW-3R	3800.09	11/2/20	77.92	75.00	2.92	3724.54	-	-	-	-
RW-3R	3800.09	12/11/20	-	-	-	-	-	-	-	-
RW-3R	3800.09	1/26/21	-	-	-	-	-	-	-	-
RW-3R	3800.09	2/9/21	78.42	75.20	3.22	3724.28	83.85	-	-	-
RW-3R	3800.09	3/25/21	-	-	-	-	-	-	-	-
RW-3R	3800.09	4/28/21	-	-	-	-	-	-	-	-
RW-3R	3800.09	5/20/21	76.62	75.91	0.71	3724.05	-	-	-	-
RW-3R	3800.09	7/26/21	76.26	76.18	0.08	3723.89	-	-	-	-
RW-3R	3800.09	8/12/21	76.56	76.21	0.35	3723.81	-	-	-	-
RW-3R	3800.09	9/28/21	76.65	76.12	0.53	3723.87	83.85	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-3R	3800.09	10/25/21	76.71	76.38	0.33	3723.65	83.85	-	-	-
RW-3R	3800.09	11/11/21	76.73	76.39	0.34	3723.64	83.85	-	-	-
RW-3R	3800.09	12/22/21	76.89	76.53	0.36	3723.49	83.85	-	-	-
RW-4R	3799.68	1/8/20	-	-	-	-	-	-	1.0	-
RW-4R	3799.68	1/14/20	74.39	74.19	0.20	3725.45	-	-	-	420
RW-4R	3799.68	2/11/20	74.35	74.26	0.09	3725.40	84.61	-	-	
RW-4R	3799.68	2/18/20	74.40	74.29	0.11	3725.37	-	-	-	336
RW-4R	3799.68	2/25/20	-	-	-	-	-	-	1.0	-
RW-4R	3799.68	3/11/20	74.40	74.32	0.08	3725.34	-	-	-	294
RW-4R	3799.68	5/1/20	74.60	74.45	0.15	3725.20	-	-	-	-
RW-4R	3799.68	5/12/20	74.59	74.43	0.16	3725.22	-	-	-	-
RW-4R	3799.68	6/19/20	74.76	74.49	0.27	3725.14	-	-	-	-
RW-4R	3799.68	7/29/20	74.95	74.60	0.35	3725.01	-	-	-	-
RW-4R	3799.68	8/24/20	75.09	74.65	0.44	3724.95	-	-	-	-
RW-4R	3799.68	9/14/20	75.19	74.71	0.48	3724.88	-	-	-	-
RW-4R	3799.68	11/2/20	75.35	74.80	0.55	3724.78	-	-	-	-
RW-4R	3799.68	12/11/20	75.51	74.90	0.61	3724.66	-	-	-	-
RW-4R	3799.68	1/26/21	75.65	75.05	0.60	3724.52	-	-	-	-
RW-4R	3799.68	2/9/21	75.68	75.08	0.60	3724.49	84.65	-	-	-
RW-4R	3799.68	3/25/21	75.80	75.21	0.59	3724.36	-	-	-	-
RW-4R	3799.68	4/28/21	75.87	75.27	0.60	3724.30	-	-	-	-
RW-4R	3799.68	5/20/21	75.94	75.35	0.59	3724.22	-	-	-	-
RW-4R	3799.68	7/26/21	76.09	75.49	0.60	3724.08	-	-	-	-
RW-4R	3799.68	8/12/21	76.15	75.53	0.62	3724.03	-	-	-	-
RW-4R	3799.68	9/28/21	76.25	75.62	0.63	3723.94	84.65	-	-	-
RW-4R	3799.68	10/25/21	76.30	75.68	0.62	3723.88	84.65	-	-	-
RW-4R	3799.68	11/11/21	76.29	75.69	0.60	3723.88	84.65	-	-	-
RW-4R	3799.68	12/22/21	76.44	75.84	0.60	3723.73	84.65	-	-	-
RW-5R	3799.26	2/12/20	74.98	-	0.00	3724.28	86.82	-	25.0	-
RW-5R	3799.26	3/18/20	-	-	-	-	-	-	3.0	-
RW-5R	3799.26	5/1/20	74.15	-	0.00	3725.11	-	-	-	-
RW-5R	3799.26	5/12/20	74.02	-	0.00	3725.24	-	-	24.0	-
RW-5R	3799.26	6/19/20	74.09	-	0.00	3725.17	-	-	-	-
RW-5R	3799.26	7/29/20	74.22	-	0.00	3725.04	-	-	-	-
RW-5R	3799.26	8/24/20	74.29	-	0.00	3724.97	-	-	-	-
RW-5R	3799.26	9/14/20	74.38	-	0.00	3724.88	-	-	24.0	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-5R	3799.26	11/2/20	74.47	-	0.00	3724.79	-	-	22.0	-
RW-5R	3799.26	12/11/20	74.58	-	0.00	3724.68	-	-	-	-
RW-5R	3799.26	1/26/21	74.73	-	0.00	3724.53	-	-	-	-
RW-5R	3799.26	2/9/21	74.73	-	0.00	3724.53	87.05	-	27.0	-
RW-5R	3799.26	3/25/21	74.87	-	0.00	3724.39	-	-	-	-
RW-5R	3799.26	4/28/21	74.93	-	0.00	3724.33	-	-	-	-
RW-5R	3799.26	5/20/21	75.00	-	0.00	3724.26	-	-	27.0	-
RW-5R	3799.26	7/26/21	75.14	-	0.00	3724.12	-	-	-	-
RW-5R	3799.26	8/12/21	75.20	-	0.00	3724.06	86.88	-	23.0	-
RW-5R	3799.26	9/28/21	75.33	-	0.00	3723.93	87.05	-	-	-
RW-5R	3799.26	10/25/21	75.35	-	0.00	3723.91	87.05	-	-	-
RW-5R	3799.26	11/11/21	75.40	-	0.00	3723.86	87.05	-	26.0	-
RW-5R	3799.26	12/22/21	77.06	-	0.00	3722.20	87.05	-	-	-
RW-7	3799.47	2/12/20	-	-	-	Dry	73.55	-	-	-
RW-7	3799.47	5/1/20	-	-	-	Dry	-	-	-	-
RW-7	3799.47	5/12/20	-	-	-	Dry	-	-	-	-
RW-7	3799.47	6/19/20	73.50	-	0.00	3725.97	-	-	-	-
RW-7	3799.47	7/29/20	73.54	-	0.00	3725.93	-	-	-	-
RW-7	3799.47	8/24/20	73.60	-	0.00	3725.87	73.65	-	-	-
RW-7	3799.47	9/14/20	-	-	-	Dry	73.55	-	-	-
RW-7	3799.47	11/2/20	-	-	-	Dry	73.67	-	-	-
RW-7	3799.47	12/11/20	-	-	-	Dry	73.51	-	-	-
RW-7	3799.47	1/26/21	-	-	-	Dry	73.60	-	-	-
RW-7	3799.47	2/9/21	-	-	-	Dry	73.73	-	-	-
RW-7	3799.47	3/25/21	73.54	-	0.00	3725.93	-	-	-	-
RW-7	3799.47	4/28/21	-	-	-	Dry	73.58	-	-	-
RW-7	3799.47	5/20/21	-	-	-	Dry	73.60	-	-	-
RW-7	3799.47	7/26/21	73.51	-	0.00	3725.96	73.60	-	-	-
RW-7	3799.47	8/12/21	-	-	-	Dry	73.57	-	-	-
RW-7	3799.47	9/28/21	-	-	-	Dry	73.73	-	-	-
RW-7	3799.47	10/25/21	-	-	-	Dry	73.73	-	-	-
RW-7	3799.47	11/11/21	-	-	-	Dry	73.73	-	-	-
RW-7	3799.47	12/22/21	-	-	-	Dry	73.73	-	-	-
RW-8	P&A	2/19/20								
RW-9	3800.02	2/11/20	74.40	74.31	0.09	3725.69	74.43	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-9	3800.02	2/25/20	-	-	-	-	-	-	1.0	-
RW-9	3800.02	5/1/20	74.42	74.33	0.09	3725.67	-	-	-	-
RW-9	3800.02	5/12/20	74.44	74.33	0.11	3725.67	-	-	-	-
RW-9	3800.02	6/19/20	74.47	74.30	0.17	3725.69	-	-	-	-
RW-9	3800.02	7/29/20	74.41	74.30	0.11	3725.70	-	-	-	-
RW-9	3800.02	8/24/20	74.36	74.25	0.11	3725.75	-	-	-	-
RW-9	3800.02	9/14/20	74.49	74.35	0.14	3725.64	-	-	-	-
RW-9	3800.02	11/2/20	74.43	74.34	0.09	3725.66	-	-	-	-
RW-9	3800.02	12/11/20	74.45	74.27	0.18	3725.72	-	-	-	-
RW-9	3800.02	1/26/21	74.38	74.30	0.08	3725.70	-	-	-	-
RW-9	3800.02	2/9/21	74.45	74.35	0.10	3725.65	74.53	-	-	-
RW-9	3800.02	3/25/21	74.42	74.34	0.08	3725.66	-	-	-	-
RW-9	3800.02	4/28/21	74.44	74.34	0.10	3725.66	-	-	-	-
RW-9	3800.02	5/20/21	74.41	74.30	0.11	3725.70	-	-	-	-
RW-9	3800.02	7/26/21	74.39	74.28	0.11	3725.72	74.40	-	-	-
RW-9	3800.02	8/12/21	74.40	74.32	0.08	3725.68	-	-	-	-
RW-9	3800.02	9/28/21	74.45	74.31	0.14	3725.68	74.53	-	-	-
RW-9	3800.02	10/25/21	74.50	74.35	0.15	3725.64	74.53	-	-	-
RW-9	3800.02	11/11/21	-	74.38	0.15+	LNAPL at TD	74.53	-	-	-
RW-9	3800.02	12/22/21	74.44	74.31	0.13	3725.69	74.53	-	-	-
RW-10	P&A	2/19/20								
RW-10R	-	3/10/20	-	-	-	-	-	-	50.0	-
RW-10R	3799.97	4/8/20	75.24	-	0.00	3724.73	93.10	-	-	-
RW-10R	3799.97	4/15/20	75.22	-	0.00	3724.75	-	-	-	-
RW-10R	3799.97	4/16/20	75.19	-	0.00	3724.78	92.65	60-90 (4 in.)	-	-
RW-10R	3799.97	5/1/20	75.29	-	0.00	3724.68	-	-	-	-
RW-10R	3799.97	5/12/20	74.31	-	0.00	3725.66	-	-	34.0	-
RW-10R	3799.97	6/19/20	75.38	-	0.00	3724.59	-	-	-	-
RW-10R	3799.97	7/29/20	75.51	-	0.00	3724.46	-	-	-	-
RW-10R	3799.97	8/24/20	75.59	75.56	0.03	3724.40	-	-	-	-
RW-10R	3799.97	9/14/20	75.64	75.63	0.01	3724.34	-	-	34.0	-
RW-10R	3799.97	11/2/20	75.74	tip trace	0.00	3724.23	-	-	-	-
RW-10R	3799.97	12/11/20	74.88	75.85	0.00	3725.09	-	-	-	-
RW-10R	3799.97	1/26/21	76.05	75.98	0.07	3723.98	-	-	-	-
RW-10R	3799.97	2/9/21	76.06	75.99	0.07	3723.97	92.95	-	-	-
RW-10R	3799.97	3/25/21	76.21	76.13	0.08	3723.82	-	-	-	-

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Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-10R	3799.97	4/28/21	76.33	76.19	0.14	3723.75	-	-	-	-
RW-10R	3799.97	5/20/21	76.38	76.27	0.11	3723.68	-	-	-	-
RW-10R	3799.97	7/26/21	76.59	76.41	0.18	3723.53	-	-	-	-
RW-10R	3799.97	8/12/21	76.68	76.47	0.21	3723.46	-	-	-	-
RW-10R	3799.97	9/28/21	76.80	76.58	0.22	3723.35	92.95	-	-	-
RW-10R	3799.97	10/25/21	76.84	76.64	0.20	3723.29	92.95	-	-	-
RW-10R	3799.97	11/11/21	76.93	76.65	0.28	3723.27	92.95	-	-	-
RW-10R	3799.97	12/22/21	76.99	76.77	0.22	3723.16	92.95	-	-	-
RW-11	3798.72	2/11/20	73.53	72.64	0.89	3725.91	73.61	-	-	-
RW-11	3798.72	2/25/20	-	-	-	-	-	-	1.0	-
RW-11	3798.72	5/1/20	-	73.04	0.36 +	LNAPL at TD	73.40	-	-	-
RW-11	3798.72	5/12/20	73.80	72.80	1.00	3725.73	73.40	-	-	-
RW-11	3798.72	6/19/20	-	73.02	0.38 +	LNAPL at TD	73.40	-	-	-
RW-11	3798.72	7/29/20	73.52	73.13	0.39	3725.52	73.40	-	-	-
RW-11	3798.72	8/24/20	73.50	73.02	0.48	3725.61	-	-	-	-
RW-11	3798.72	9/14/20	-	73.09	0.41 +	LNAPL at TD	73.50	-	-	-
RW-11	3798.72	11/2/20	-	73.23	0.15 +	LNAPL at TD	73.38	-	-	-
RW-11	3798.72	12/11/20	-	73.32	0.18 +	LNAPL at TD	73.50	-	-	-
RW-11	3798.72	1/26/21	-	73.47	0.03 +	LNAPL at TD	73.50	-	-	-
RW-11	3798.72	2/9/21	-	-	-	Dry	73.49	-	-	-
RW-11	3798.72	3/25/21	-	-	-	Dry	73.41	-	-	-
RW-11	3798.72	4/28/21	-	-	-	Dry	-	-	-	-
RW-11	3798.72	5/20/21	-	-	-	Dry	73.40	-	-	-
RW-11	3798.72	7/26/21	-	-	-	Dry	73.65	-	-	-
RW-11	3798.72	8/12/21	-	-	-	Dry	73.45	-	-	-
RW-11	3798.72	9/28/21	-	-	-	Dry	73.49	-	-	-
RW-11	3798.72	10/25/21	-	-	-	Dry	73.49	-	-	-
RW-11	3798.72	11/11/21	-	-	-	Dry	73.49	-	-	-
RW-11	3798.72	12/22/21	-	-	-	Dry	73.49	-	-	-
RW-12	P&A	2/19/20								
RW-13	3800.62	2/12/20	-	-	-	Dry	74.95	-	-	-
RW-13	3800.62	5/1/20	-	-	0.00	Dry	-	-	-	-
RW-13	3800.62	5/12/20	73.92	-	0.00	3726.70	74.09	-	-	-
RW-13	3800.62	6/19/20	Dry	-	0.00	Dry	-	-	-	-
RW-13	3800.62	7/29/20	Dry	-	0.00	Dry	79.15	-	-	-

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Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-13	3800.62	8/24/20	73.94	-	0.00	3726.68	74.03	-	-	-
RW-13	3800.62	9/14/20	73.95	-	0.00	3726.67	-	-	-	-
RW-13	3800.62	11/2/20	-	-	-	Dry	74.07	-	-	-
RW-13	3800.62	12/11/20	73.92	-	0.00	3726.70	74.07	-	-	-
RW-13	3800.62	1/26/21	73.94	-	0.00	3726.68	-	-	-	-
RW-13	3800.62	2/9/21	-	-	-	Dry	74.13	-	-	-
RW-13	3800.62	3/25/21	73.95	-	0.00	3726.67	-	-	-	-
RW-13	3800.62	4/28/21	-	-	-	Dry	74.12	-	-	-
RW-13	3800.62	5/20/21	-	-	-	Dry	74.13	-	-	-
RW-13	3800.62	7/26/21	73.93	-	0.00	3726.69	74.04	-	-	-
RW-13	3800.62	8/12/21	73.93	-	0.00	3726.69	74.05	-	-	-
RW-13	3800.62	9/28/21	73.96	-	0.00	3726.66	74.13	-	-	-
RW-13	3800.62	10/25/21	74.00	-	0.00	3726.62	74.13	-	-	-
RW-13	3800.62	11/11/21	74.04	-	0.00	3726.58	74.13	-	-	-
RW-13	3800.62	12/22/21	74.14	-	0.00	3726.48	74.13	-	-	-
RW-14	3800.13	2/12/20	75.00	-	0.00	3725.13	85.38	-	20.0	-
RW-14	3800.13	5/1/20	75.13	-	0.00	3725.00	-	-	-	-
RW-14	3800.13	5/12/20	75.13	-	0.00	3725.00	-	-	20.0	-
RW-14	3800.13	6/19/20	75.22	-	0.00	3724.91	-	-	-	-
RW-14	3800.13	7/29/20	75.34	-	0.00	3724.79	-	-	-	-
RW-14	3800.13	8/24/20	75.40	-	0.00	3724.73	-	-	-	-
RW-14	3800.13	9/14/20	75.48	-	0.00	3724.65	-	-	20.0	-
RW-14	3800.13	11/2/20	75.59	-	0.00	3724.54	-	-	20.0	-
RW-14	3800.13	12/11/20	75.68	-	0.00	3724.45	-	-	-	-
RW-14	3800.13	1/26/21	75.84	-	0.00	3724.29	-	-	-	-
RW-14	3800.13	2/9/21	75.85	-	0.00	3724.28	83.55	-	16.0	-
RW-14	3800.13	3/25/21	75.98	-	0.00	3724.15	-	-	-	-
RW-14	3800.13	4/28/21	76.05	-	0.00	3724.08	-	-	-	-
RW-14	3800.13	5/20/21	76.11	-	0.00	3724.02	-	-	16.0	-
RW-14	3800.13	7/26/21	76.24	-	0.00	3723.89	-	-	-	-
RW-14	3800.13	8/12/21	76.33	-	0.00	3723.80	83.46	-	14.0	-
RW-14	3800.13	9/28/21	76.45	-	0.00	3723.68	83.55	-	-	-
RW-14	3800.13	10/25/21	76.48	-	0.00	3723.65	83.55	-	-	-
RW-14	3800.13	11/11/21	76.52	-	0.00	3723.61	83.55	-	14.0	-
RW-14	3800.13	12/22/21	76.61	-	0.00	3723.52	83.55	-	-	-
RW-15	3800.23	2/12/20	74.98	-	0.00	3725.25	84.81	-	20.0	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-15	3800.23	5/1/20	75.15	-	0.00	3725.08	-	-	-	-
RW-15	3800.23	5/12/20	75.16	-	0.00	3725.07	-	-	19.0	-
RW-15	3800.23	6/19/20	75.26	-	0.00	3724.97	-	-	-	-
RW-15	3800.23	7/29/20	75.37	-	0.00	3724.86	-	-	-	-
RW-15	3800.23	8/24/20	75.42	-	0.00	3724.81	-	-	-	-
RW-15	3800.23	9/14/20	75.50	-	0.00	3724.73	-	-	19.0	-
RW-15	3800.23	11/2/20	75.61	-	0.00	3724.62	-	-	4.5	-
RW-15	3800.23	12/11/20	75.71	-	0.00	3724.52	-	-	-	-
RW-15	3800.23	1/26/21	75.86	-	0.00	3724.37	-	-	-	-
RW-15	3800.23	2/9/21	75.87	-	0.00	3724.36	83.35	-	16.0	-
RW-15	3800.23	3/25/21	76.00	-	0.00	3724.23	-	-	-	-
RW-15	3800.23	4/28/21	76.06	-	0.00	3724.17	-	-	-	-
RW-15	3800.23	7/26/21	76.28	-	0.00	3723.95	-	-	-	-
RW-15	3800.23	5/20/21	76.13	-	0.00	3724.10	-	-	16.0	-
RW-15	3800.23	9/28/21	76.45	-	0.00	3723.78	-	-	-	-
RW-15	3800.23	8/12/21	75.33	-	0.00	3724.90	83.35	-	16.5	-
RW-15	3800.23	10/25/21	76.48	-	0.00	3723.75	83.35	-	-	-
RW-15	3800.23	11/11/21	76.52	-	0.00	3723.71	83.35	-	14.0	-
RW-15	3800.23	12/22/21	76.63	-	0.00	3723.60	83.35	-	-	-
RW-16	3800.19	2/11/20	75.09	74.84	0.25	3725.30	89.95	-	-	-
RW-16	3800.19	5/1/20	-	-	-	-	-	-	-	-
RW-16	3800.19	5/12/20	75.21	75.05	0.16	3725.11	-	-	-	-
RW-16	3800.19	6/19/20	-	-	-	-	-	-	-	-
RW-16	3800.19	7/29/20	75.83	75.17	0.66	3724.89	-	-	-	-
RW-16	3800.19	8/24/20	75.99	75.21	0.78	3724.83	-	-	-	-
RW-16	3800.19	9/14/20	76.13	75.27	0.86	3724.76	-	-	-	-
RW-16	3800.19	11/2/20	75.58	75.51	0.07	3724.67	-	-	-	-
RW-16	3800.19	12/11/20	-	-	-	-	-	-	-	-
RW-16	3800.19	1/26/21	-	-	-	-	-	-	-	-
RW-16	3800.19	2/9/21	75.85	75.78	0.07	3724.40	89.95	-	-	-
RW-16	3800.19	3/25/21	76.12	75.87	0.25	3724.27	-	-	-	-
RW-16	3800.19	4/28/21	76.08	75.92	0.16	3724.24	-	-	-	-
RW-16	3800.19	5/20/21	76.42	76.00	0.42	3724.11	-	-	-	-
RW-16	3800.19	7/26/21	76.68	76.13	0.55	3723.96	-	-	-	-
RW-16	3800.19	8/12/21	76.81	76.20	0.61	3723.87	-	-	-	-
RW-16	3800.19	9/28/21	76.97	76.26	0.71	3723.80	89.95	-	-	-
RW-16	3800.19	10/25/21	77.01	76.31	0.70	3723.75	89.95	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-16	3800.19	11/11/21	77.13	76.35	0.78	3723.69	89.95	-	-	-
RW-16	3800.19	12/22/21	77.15	76.46	0.69	3723.60	89.95	-	-	-
RW-17	3799.82	2/11/20	75.21	74.52	0.69	3725.17	89.82	-	-	-
RW-17	3799.82	5/1/20	-	-	-	-	-	-	-	-
RW-17	3799.82	5/12/20	75.27	74.76	0.51	3724.96	-	-	-	-
RW-17	3799.82	6/19/20	-	-	-	-	-	-	-	-
RW-17	3799.82	7/29/20	-	-	-	-	-	-	-	-
RW-17	3799.82	8/24/20	-	-	-	-	-	-	-	-
RW-17	3799.82	9/14/20	75.52	75.08	0.44	3724.66	-	-	-	-
RW-17	3799.82	11/2/20	76.55	75.02	1.53	3724.51	-	-	-	-
RW-17	3799.82	12/11/20	77.25	75	2.25	3724.39	-	-	-	-
RW-17	3799.82	1/26/21	77.83	75.04	2.79	3724.25	-	-	-	-
RW-17	3799.82	2/9/21	77.98	75.04	2.94	3724.22	90.01	-	-	-
RW-17	3799.82	3/25/21	-	-	-	-	-	-	-	-
RW-17	3799.82	4/28/21	-	-	-	-	-	-	-	-
RW-17	3799.82	5/20/21	76.28	75.70	0.58	3724.01	-	-	-	-
RW-17	3799.82	7/26/21	76.10	75.97	0.13	3723.83	-	-	-	-
RW-17	3799.82	8/12/21	76.13	75.99	0.14	3723.80	-	-	-	-
RW-17	3799.82	9/28/21	76.68	76.04	0.64	3723.66	90.01	-	-	-
RW-17	3799.82	10/25/21	76.71	76.12	0.59	3723.59	90.01	-	-	-
RW-17	3799.82	11/11/21	76.73	76.16	0.57	3723.55	90.01	-	-	-
RW-17	3799.82	12/22/21	76.85	76.24	0.61	3723.46	90.01	-	-	-
RW-18	-	3/10/20	-	-	-	-	-	-	50.0	-
RW-18	3799.57	4/8/20	74.77	74.76	0.01	3724.81	93.04	-	-	-
RW-18	3799.57	4/15/20	74.75	Trace	0.00	3724.82	-	-	-	-
RW-18	3799.57	4/16/20	74.68	-	0.00	3724.89	92.68	60-90 (4 in.)	-	-
RW-18	3799.57	5/1/20	74.81	Trace	0.00	3724.76	-	-	-	-
RW-18	3799.57	5/12/20	74.85	74.82	0.03	3724.74	-	-	-	-
RW-18	3799.57	6/19/20	74.96	74.88	0.08	3724.67	-	-	-	-
RW-18	3799.57	7/29/20	75.08	75.02	0.06	3724.54	-	-	-	-
RW-18	3799.57	8/24/20	75.14	75.08	0.06	3724.48	-	-	-	-
RW-18	3799.57	9/14/20	75.22	75.16	0.06	3724.40	-	-	-	-
RW-18	3799.57	11/2/20	75.36	75.24	0.12	3724.31	-	-	-	-
RW-18	3799.57	12/11/20	75.57	75.33	0.24	3724.19	-	-	-	-
RW-18	3799.57	1/26/21	75.85	75.44	0.41	3724.05	-	-	-	-
RW-18	3799.57	2/9/21	75.97	75.44	0.53	3724.03	93.03	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-18	3799.57	3/25/21	76.52	75.49	1.03	3723.88	-	-	-	-
RW-18	3799.57	4/28/21	76.98	75.49	1.49	3723.80	-	-	-	-
RW-18	3799.57	5/20/21	77.12	75.57	1.55	3723.71	-	-	-	-
RW-18	3799.57	7/26/21	77.77	75.58	2.19	3723.57	-	-	-	-
RW-18	3799.57	8/12/21	77.95	75.61	2.34	3723.52	-	-	-	-
RW-18	3799.57	9/28/21	78.33	75.62	2.71	3723.44	93.03	-	-	-
RW-18	3799.57	10/25/21	78.26	76.00	2.26	3723.14	93.03	-	-	-
RW-18	3799.57	11/11/21	77.23	75.98	1.25	3723.35	93.03	-	-	-
RW-18	3799.57	12/22/21	78.39	76.13	2.26	3723.01	93.03	-	-	-
RW-19	-	3/10/20	-	-	0.00	-	-	-	50.0	-
RW-19	3799.31	4/8/20	74.54	-	0.00	3724.77	93.05	-	-	-
RW-19	3799.31	4/15/20	74.54	-	0.00	3724.77	-	-	-	-
RW-19	3799.31	4/16/20	74.46	-	0.00	3724.85	92.82	60-90 (4 in.)	-	-
RW-19	3799.31	5/1/20	74.57	-	0.00	3724.74	-	-	-	-
RW-19	3799.31	5/12/20	74.59	-	0.00	3724.72	-	-	36.0	-
RW-19	3799.31	6/19/20	74.69	-	0.00	3724.62	-	-	-	-
RW-19	3799.31	7/29/20	74.80	-	0.00	3724.51	-	-	-	-
RW-19	3799.31	8/24/20	74.87	-	0.00	3724.44	-	-	-	-
RW-19	3799.31	9/14/20	74.94	-	0.00	3724.37	-	-	36.0	-
RW-19	3799.31	11/2/20	75.04	-	0.00	3724.27	-	-	34.0	-
RW-19	3799.31	12/11/20	75.16	-	0.00	3724.15	-	-	-	-
RW-19	3799.31	1/26/21	75.31	-	0.00	3724.00	-	-	-	-
RW-19	3799.31	2/9/21	75.31	-	0.00	3724.00	92.99	-	34.0	-
RW-19	3799.31	3/25/21	75.44	-	0.00	3723.87	-	-	-	-
RW-19	3799.31	4/28/21	75.51	-	0.00	3723.80	-	-	-	-
RW-19	3799.31	5/20/21	75.58	-	0.00	3723.73	-	-	34.0	-
RW-19	3799.31	7/26/21	75.71	-	0.00	3723.60	-	-	-	-
RW-19	3799.31	8/12/21	75.79	-	0.00	3723.52	92.92	-	33.5	-
RW-19	3799.31	9/28/21	75.89	-	0.00	3723.42	92.99	-	-	-
RW-19	3799.31	10/25/21	75.93	-	0.00	3723.38	92.99	-	-	-
RW-19	3799.31	11/11/21	75.98	-	0.00	3723.33	92.99	-	32.0	-

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. MW-4R, MW-8R, MW-10R, MW-17, RW-5R, RW-16, and RW-17 were installed in February & March 2017
6. "+" entered with LNAPL thickness indicates that the base of LNAPL was below the bottom of the well

Table 2

BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-1R	5/15/20	<0.000190	<0.000412	<0.00016	<0.000510
MW-1R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R (DUP 1)	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R	8/13/21	<0.000190	<0.000412	<0.000160	**0.000745 J**
MW-1R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	5/15/20	<0.000190	<0.000412	<0.00016	<0.000510
MW-2R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R (Dup-2)	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R (DUP-1)	8/13/21	**0.000353 J**	<0.000412	<0.000160	<0.000510
MW-2R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	11/3/20	**0.000209 J**	**0.00137**	**0.002740**	**0.005390**
MW-3R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	2/13/20	**0.000191 J**	<0.000412	<0.000160	<0.000510
MW-4R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	11/3/20	<0.000190	<0.000412	**0.002080**	**0.003620**
MW-4R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R (Dup-1)	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510

Table 2

BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-5R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-7R	5/15/20	<0.000190	<0.000412	<0.000160	**0.00298**
MW-7R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-7R	11/3/20	<0.000190	<0.000412	<0.000160	**0.00334**
MW-7R (DUP-1)	11/3/20	<0.000190	<0.000412	<0.000160	**0.00307**
MW-7R	2/23/21	<0.000190	<0.000412	<0.000160	**0.00299**
MW-7R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-7R	8/13/21	<0.000190	<0.000412	<0.000160	**0.000755 J**
MW-7R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-8R	2/13/20	**0.0254**	<0.000412	**0.00280**	**0.0167**
MW-8R (Dup-2)	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-8R	4/8/20	**0.0180**	<0.000412	**0.000507**	**0.00594**
MW-8R (DUP-2)	4/8/20	**0.0196**	<0.000412	**0.000636**	**0.00490**
MW-8R	5/15/20	**0.00295**	<0.000412	<0.000160	**0.00530**
MW-8R (DUP-2)	5/15/20	**0.00314**	<0.000412	<0.000160	**0.00548**
MW-8R	9/17/20	**0.00893**	<0.000412	<0.000160	<0.000510
MW-8R	11/3/20	**0.0245**	**0.00338**	**0.00382**	**0.0162**
MW-8R (DUP-2)	11/3/20	**0.0195**	**0.00196**	**0.00223**	**0.00924**
MW-8R	2/23/21	**0.0155**	**0.00326**	**0.00343**	**0.0114**
MW-8R	5/21/21	**0.0260**	<0.000412	**0.00228**	**0.00362**
MW-8R	8/13/21	**0.0573**	**0.00122**	**0.00251**	**0.00426**
MW-8R	11/12/21	**0.00443**	**0.000538 J**	**0.000238 J**	<0.000510
MW-8R (DUP-2)	11/12/21	**0.00575**	**0.000663 J**	**0.000246 J**	<0.000510
MW-10R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	8/13/21	<0.000190	**0.000511 J**	<0.000160	<0.000510
MW-10R (DUP-2)	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-12R	2/13/20	<0.000190	<0.000412	**0.000637**	<0.000510
MW-12R	5/15/20	**0.000833**	<0.000412	**0.00113**	<0.000510

Table 2

BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-12R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-12R	11/3/20	**0.001350**	**0.00342**	**0.00164**	**0.000928 J**
MW-12R	2/23/21	**0.000723**	**0.00279**	**0.00136**	**0.000757 J**
MW-12R	5/21/21	**0.000193 J**	<0.000412	**0.00160**	<0.000510
MW-12R	8/13/21	**0.000477 J**	<0.000412	**0.000740**	<0.000510
MW-12R	11/12/21	**0.000216 J**	**0.00121**	**0.000371 J**	<0.000510
MW-13R	5/15/2020	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R (DUP 1)	5/15/2020	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	5/21/21	**0.000832**	<0.000412	<0.000160	<0.000510
MW-13R	8/13/21	**0.00224**	<0.000412	<0.000160	<0.000510
MW-13R	11/12/21	**0.00171**	**0.00116**	**0.000406 J**	<0.000510
MW-13R (DUP-1)	11/12/21	**0.00182**	**0.00114**	**0.000406 J**	<0.000510
MW-15	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17	2/13/20	<0.000190	<0.000412	**0.000663**	**0.00222**
MW-17 (DUP-1)	2/13/20	**0.0244**	<0.000412	**0.00222**	**0.0169**
MW-17	4/8/20	<0.000190	<0.000412	**0.000255 J**	**0.00288**
MW-17 (DUP-1)	4/8/20	<0.000190	<0.000412	**0.000318 J**	**0.00149 J**
MW-17	5/15/20	<0.000190	<0.000412	**0.000318 J**	**0.00324**
MW-17	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17	11/3/20	<0.000190	<0.000412	<0.000160	**0.00117 J**
MW-17	2/23/21	<0.000190	<0.000412	**0.000354 J**	**0.00439**
MW-17	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17	8/13/21	<0.000190	<0.000412	**0.000204 J**	**0.00283**
MW-17	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18	9/17/20	**0.000309 J**	<0.000412	<0.000160	<0.000510
MW-18	11/3/20	**0.000288 J**	<0.000412	<0.000160	<0.000510
MW-18	2/23/21	**0.000304 J**	<0.000412	<0.000160	<0.000510
MW-18	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-5R	2/13/20	**0.000901**	<0.000412	**0.000350**	**0.00313**
RW-5R	5/15/20	**0.000961**	<0.000412	<0.000160	**0.0366**

Table 2

BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
RW-5R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-5R	11/3/20	<0.000190	<0.000412	<0.000160	**0.00420**
RW-5R	2/23/21	<0.000190	<0.000412	**0.000444 J**	**0.0232**
RW-5R	5/21/21	<0.000190	<0.000412	<0.000160	**0.00167**
RW-5R	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-5R	11/12/21	<0.000190	<0.000412	<0.000160	**0.00106 J**
RW-10R	5/15/20	**0.372**	**0.223**	**0.0802**	**0.322**
RW-10R	9/17/20	**0.785**	**0.411**	**0.244**	**0.995**
Dup-1 (RW-10R)	9/17/20	**1.08**	**0.491**	**0.298**	**1.19**
RW-14	2/13/20	**0.00158**	<0.000412	**0.000912**	<0.000510
RW-14	5/15/20	**0.000464 J**	**0.00112**	**0.000461 J**	**0.00123 J**
RW-14	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-14	11/3/20	<0.000190	**0.000623 J**	**0.000219 J**	<0.000510
RW-14	2/23/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-14	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-14	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-14	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-15	2/13/20	<0.000190	<0.000412	**0.000738**	<0.000510
RW-15	5/15/20	<0.000190	<0.000412	**0.000554**	**0.00272**
RW-15	9/17/20	**0.000885**	<0.000412	<0.000160	<0.000510
Dup-2 (RW-15)	9/17/20	<0.000190	**0.00117**	**0.000593**	<0.000510
RW-15	11/3/20	**0.00110**	**0.00129**	**0.000854**	**0.000620 J**
RW-15	2/23/21	**0.00386 J**	**0.00112**	**0.000534**	**0.00110 J**
RW-15	5/21/21	<0.000190	<0.000412	**0.000262 J**	<0.000510
RW-15	8/13/21	<0.000190	<0.000412	**0.000302 J**	<0.000510
RW-15	11/12/21	<0.000190	<0.000412	**0.000330 J**	<0.000510
RW-19	5/15/20	<0.000190	**0.000467 J**	**0.000889 B**	**0.0062**
RW-19	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-19	11/3/20	<0.000190	<0.000412	**0.000388 J**	**0.001820**
RW-19	2/23/21	**0.00227**	<0.000412	**0.00147**	**0.00777**
RW-19	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-19 (DUP 2)	5/21/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-19	8/13/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-19	11/12/21	<0.000190	<0.000412	<0.000160	<0.000510

Notes:

1. Shaded cells indicate NMOCD Regulatory Limit exceedances
2. Bold font indicates detection.
3. BTEX analyses by EPA Method 8021B.
4. March 2011 analytical results collected by NOVA.
5. MW-4R, MW-8R, MW-10R, MW-17, RW-5R, RW-16, RW-17 were installed in Feb & Mar 2017.
6. Flag J indicates the identification of the analyte is acceptable and the reported result is an

Table 2

BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62

estimate.
7. Flag B indicates the same analyte is found in the associated blank.

Table 3
Polycyclic Aromatic Hydrocarbons Analytical Results
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

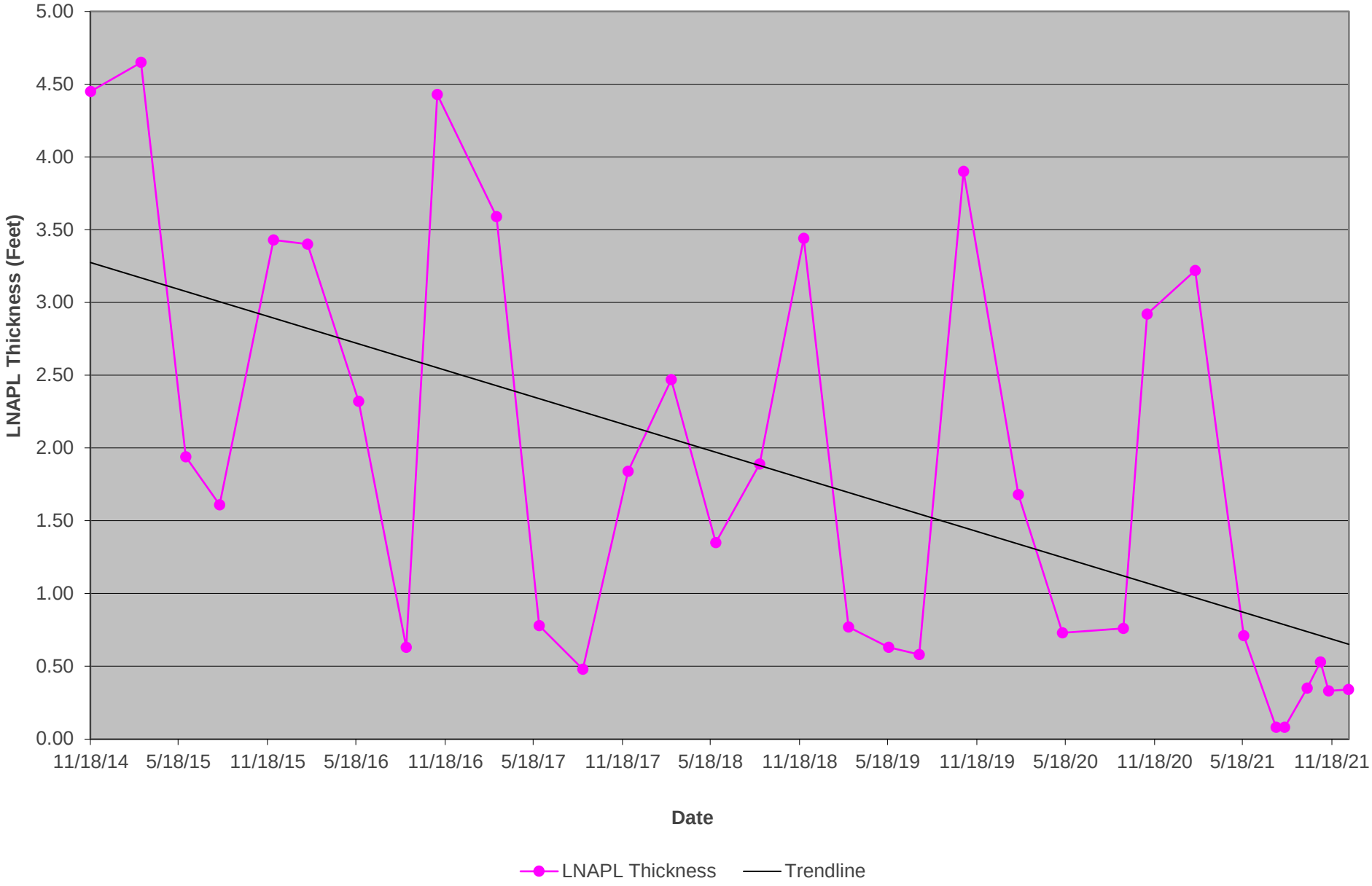
Sample ID	Sample Date	Anthracene (mg/L)	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Benzo(a)anthracene (mg/L)	Benzo(a)pyrene (mg/L)	Benzo(b)fluoranthene (mg/L)	Benzo(g,h,i)perylene (mg/L)	Benzo(k)fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)anthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd)pyrene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)
		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	0.001	0.001	0.03		
MW-1R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-1R	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-2R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-2R	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-3R	12/3/15	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-3R	11/4/16	<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	<0.000184	<0.000184	<0.000184	<0.000184
MW-4R	11/30/17	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000382	<0.000191	<0.000191
MW-4R	11/28/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000284 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.0000987 B J**	<0.00000821	<0.00000902
MW-5R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-5R	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-8R	10/25/19	**0.0000497 J**	**0.000113**	<0.000012	<0.0000041	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.000473**	<0.0000157	**0.000349**	<0.0000148	**0.000535**	**0.0000117 J**	**0.00112**	**0.00106**	**0.000356**
MW-8R	11/3/20	<0.0000190	**0.0000311 J**	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.000231**	<0.0000270	**0.0000834**	<0.0000158	<0.0000180	<0.0000169	**0.000106 J**	<0.0000687	<0.0000674
MW-10R	11/30/17	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000378	<0.000189	<0.000189
MW-10R	11/28/18	**0.0000152 J**	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000540 B J**	<0.0000157	<0.00000850	<0.0000148	**0.0000185 J**	<0.0000117	**0.000157 B J**	<0.00000821	<0.00000902
MW-11R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-11R	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-12R	11/20/14	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-12R	12/3/15	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-13R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-13R	11/12/21	<0.0000190	**0.000109**	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.000598**	<0.0000270	<0.0000169	<0.0000158	**0.000215**	<0.0000169	**0.000205 J**	**0.00069**	**0.0000798 J**
MW-14	12/3/08	<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-14	12/1/09	<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-15	12/3/08	<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-15	12/2/09	<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	12/3/08	<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	12/1/09	<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-17	11/30/17	<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	<0.000373	**0.000304**	**0.000524**
MW-17	11/28/18	<0.0000280	<0.0000200	<0.0000240	<0.00000820	<0.0000232	<0.00000424	<0.00000454	<0.0000272	<0.0000216	<0.00000792	**0.0000407 J**	<0.0000314	<0.0000170	<0.0000296	<0.0000164	<0.0000234	**0.000202 B J**	**0.0000304 J**	<0.0000180
MW-18	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-18	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
RW-5R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.0000251 J**	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
RW-5R	11/12/21	<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	<0.000366	<0.0000687	<0.0000674
RW-7	11/30/17	**0.00140**	**0.00185**	**0.000956**	**0.00311**	**0.00124**	<0.000187	<0.000187	<0.000187	**0.00254**	<0.000187	**0.00258**	**0.000846**	**0.00505**	<0.000187	**0.0112**	**0.000932**	**0.00324**	**0.00775**	**0.00136**
RW-7	11/28/18	<0.0000420	**0.000841**	<0.0000360	**0.00204**	<0.0000348	**0.000420**	**0.000333**	<0.0000408	**0.000939**	<0.0000119	**0.00115**	<0.0000471	**0.00239**	<0.0000444	**0.00557**	**0.00183**	**0.00165**	**0.00310**	**0.00270**
RW-9	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00642**	<0.000184	**0.00907**	<0.000184	**0.0112**	<0.000184	**0.0574**	**0.0859**	**0.0791**
RW-9	12/2/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0320**	<0.000917	**0.0488**	<0.000917	**0.0679**	<0.000917	**0.215**	**0.473**	**0.625**
RW-11	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00494**	<0.000184	**0.0076**	<0.000184	**0.0093**	<0.000184	**0.053**	**0.066**	**0.0609**
RW-13	12/2/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000891**	<0.000183	**0.0013**	<0.000183	**0.00156**	<0.000183	**0.00094**	**0.00489**	**0.00337**
RW-13	11/30/17	**0.00299**	**0.00345**	**0.00227**	**0.00573**	**0.000502**	**0.000718**	**0.000692**	**0.000996**	**0.00396**	**0.000279**	**0.00792**	**0.00179**	**0.0115**	**0.000277**	**0.0205**	**0.00262**	**0.00741**	**0.0303**	**0.00513**
RW-14	11/20/14	<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
RW-14	12/3/15	<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
RW-15	11/4/16	<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	<0.000184	<0.000184	<0.000184	<0.000184
RW-15	11/30/17	<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	<0.000366	<0.000183	<0.000183
RW-19	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
RW-19	11/12/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.0000372 J**	<0.0000270	**0.0000203 J**	<0.0000158	**0.00014**	<0.0000169	<0.0000180	**0.0000757 J**	<0.0000674

Notes:

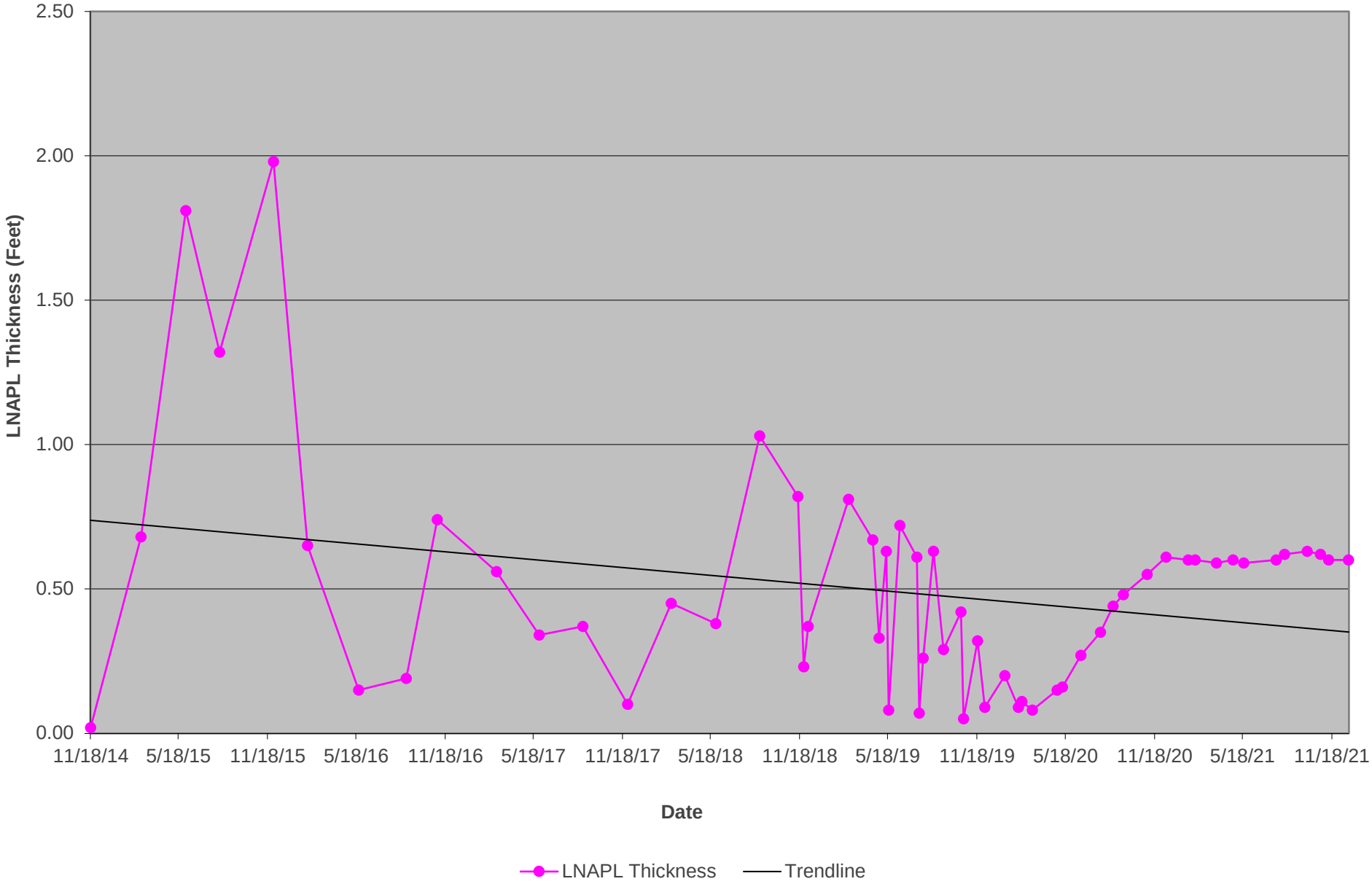
1. Shaded cells indicates exceedance of New Mexico Water Quality Control Commission regulatory standard.
2. Bold indicates detection.
3. PAH analyses by EPA Method 8270.
4. 2008 through 2010 analytical results collected by NOVA.
5. Flag B--The same analyte is found in the associated blank.
6. Flag J--The identification of the analyte is acceptable; the reported value is an estimate.

Appendix A
Charts of LNAPL Thickness Versus Time

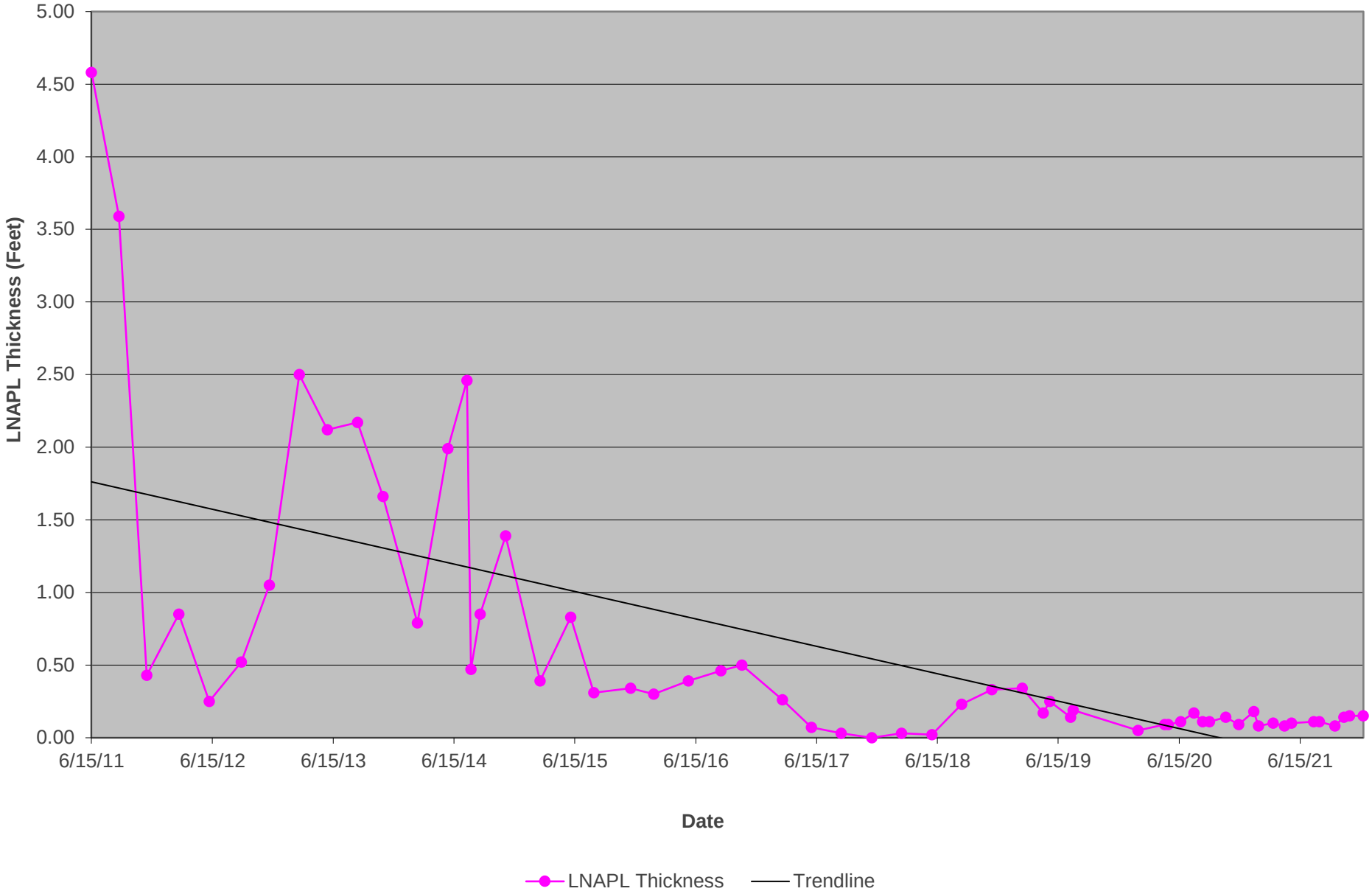
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-3R



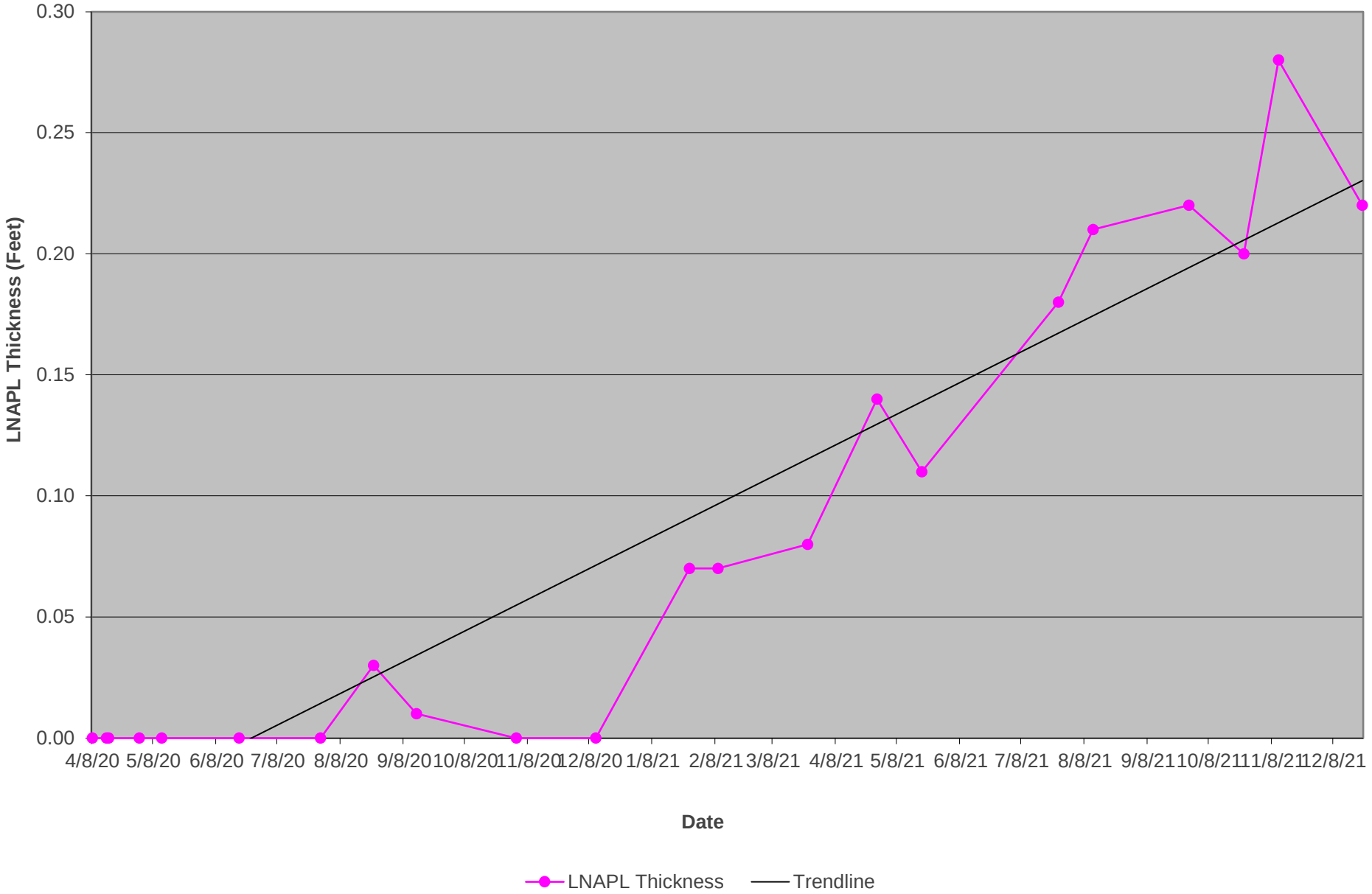
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-4R



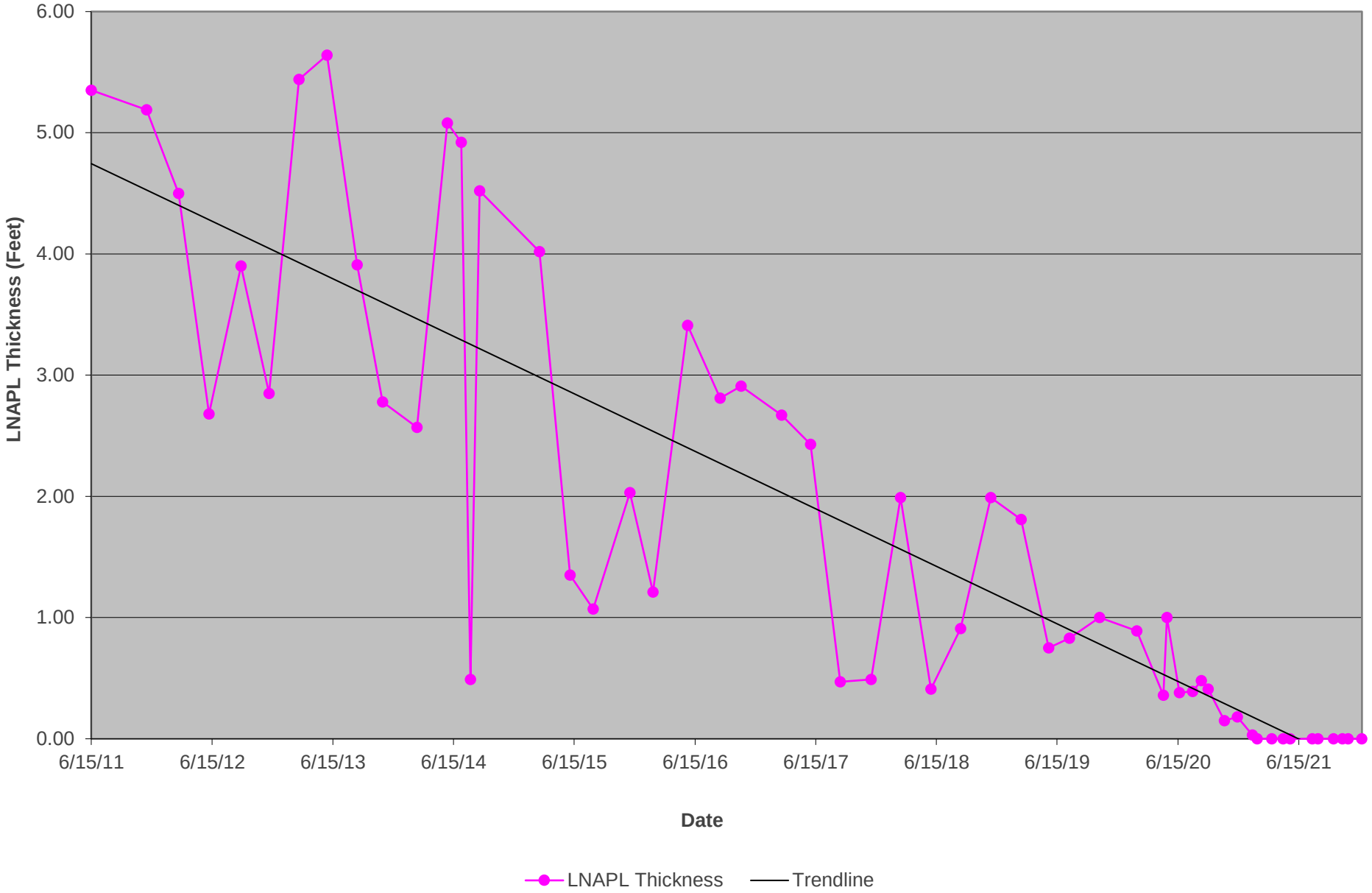
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-9



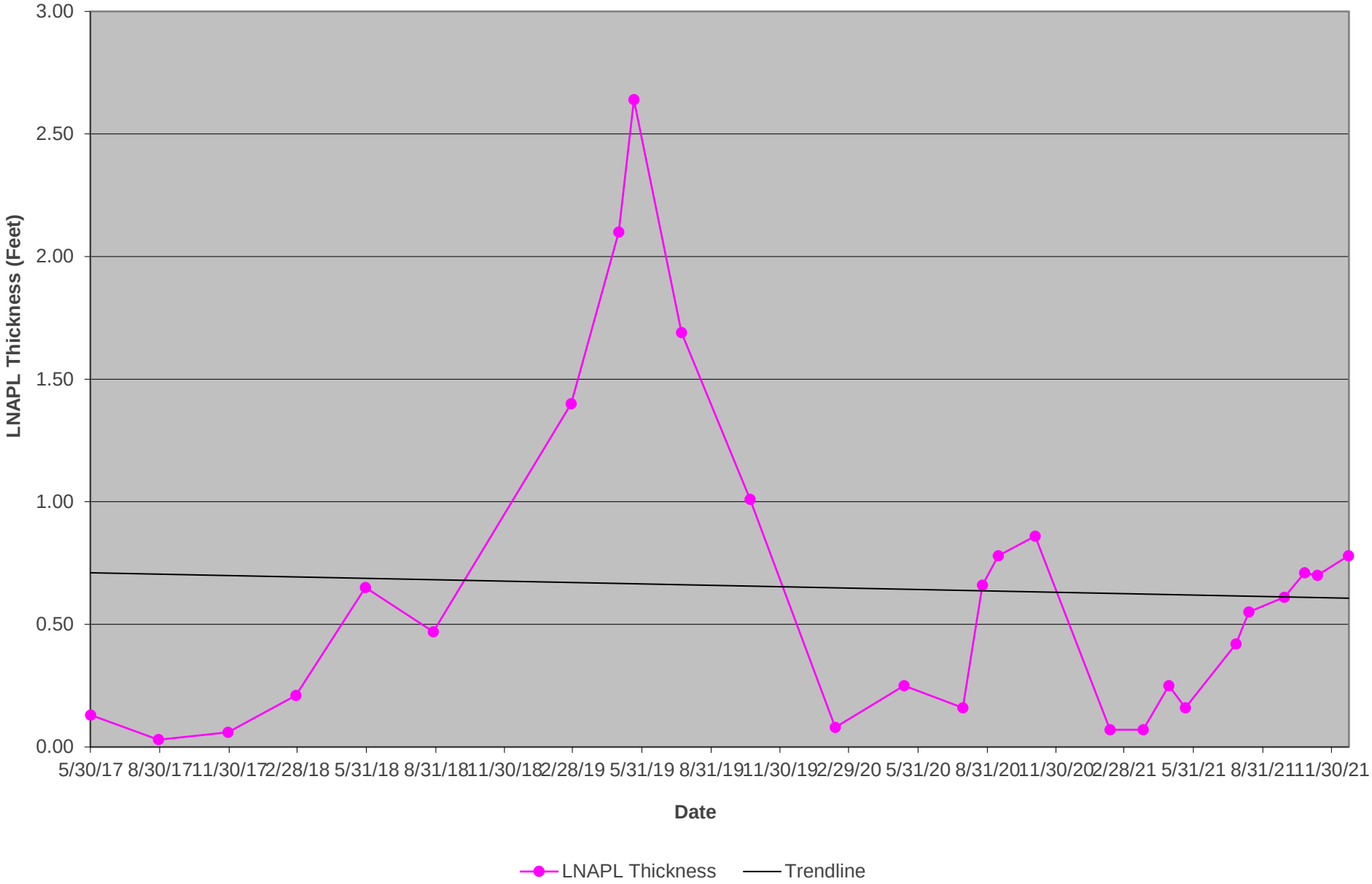
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-10R



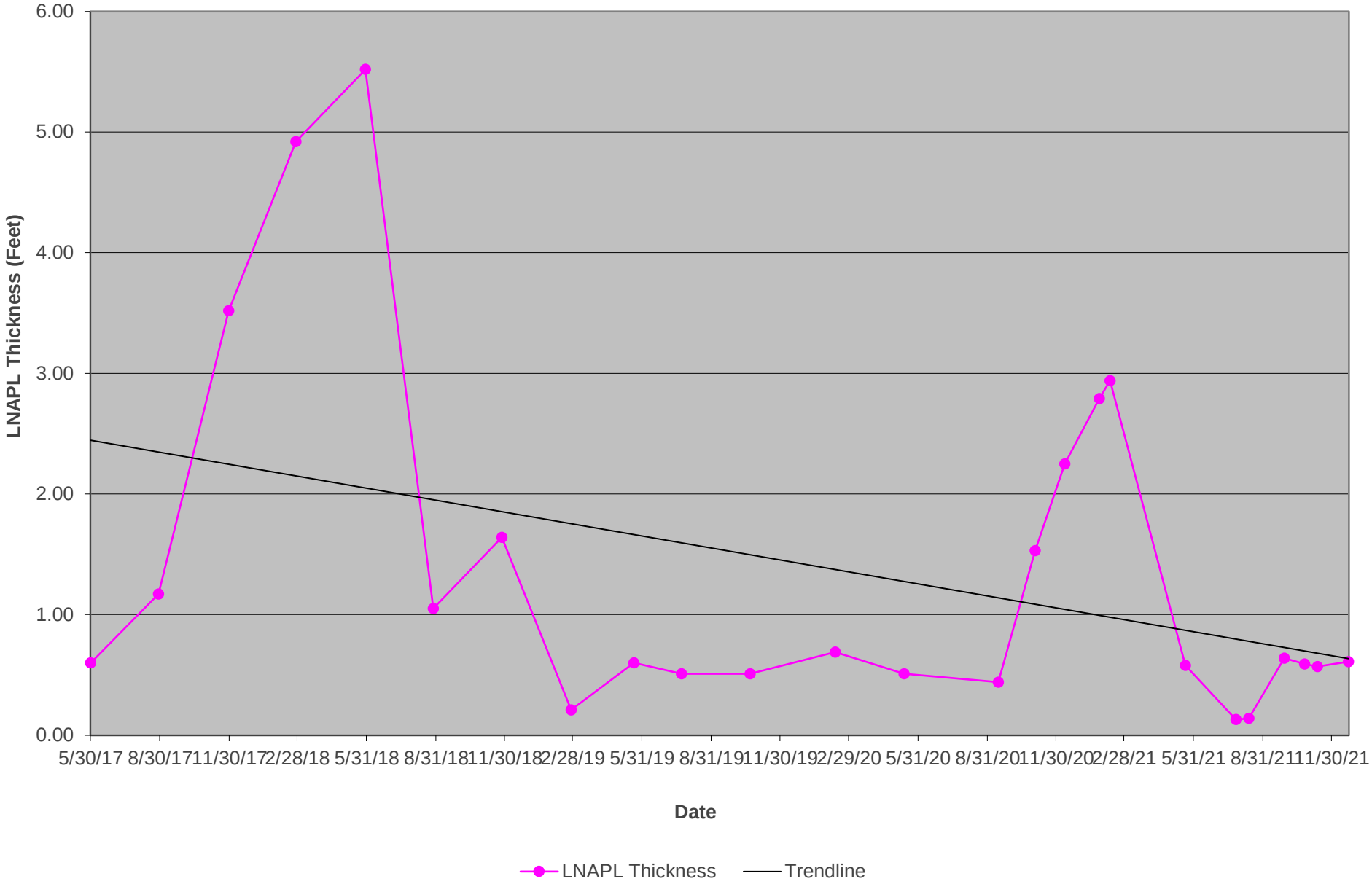
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-11



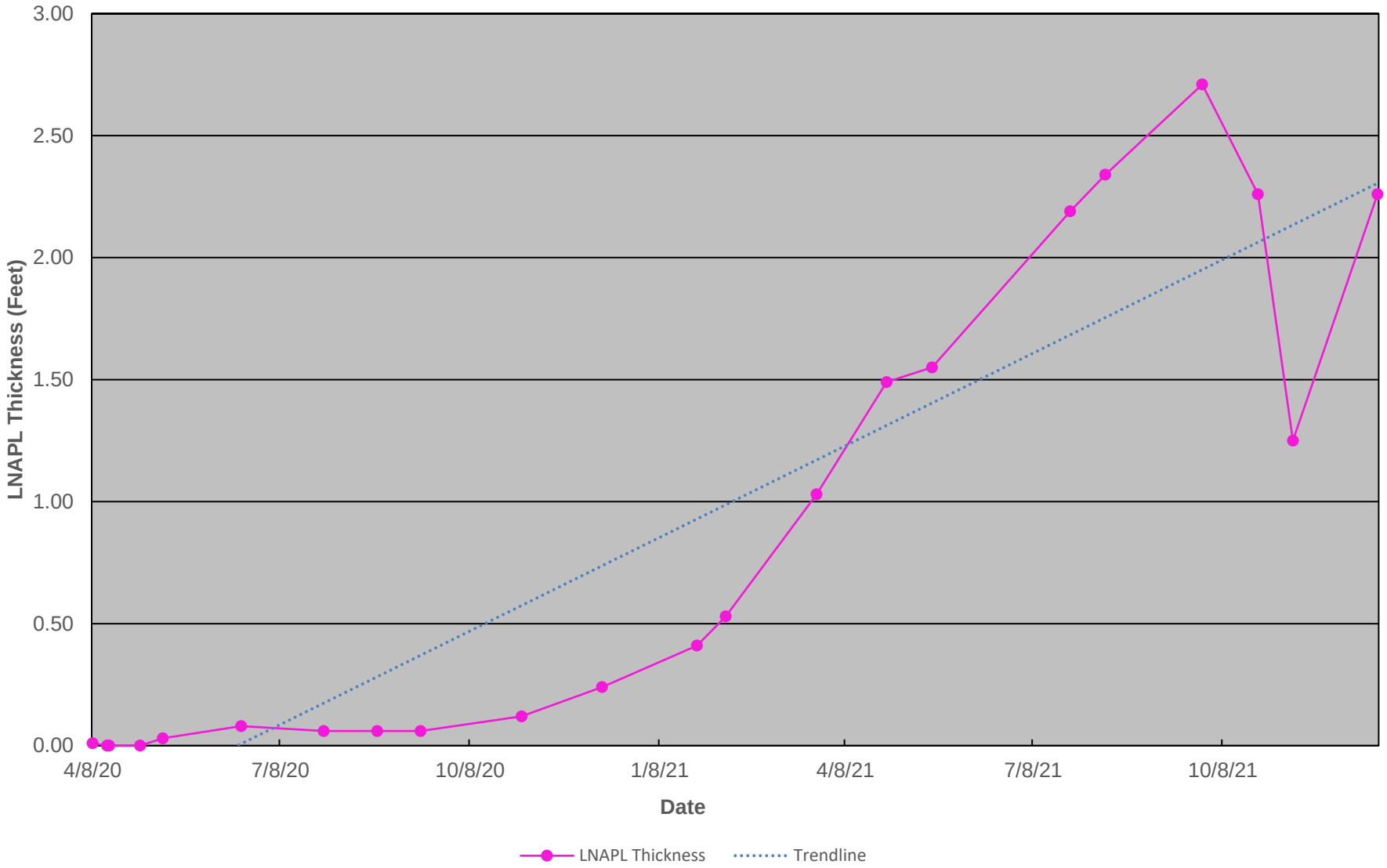
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-16



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-17

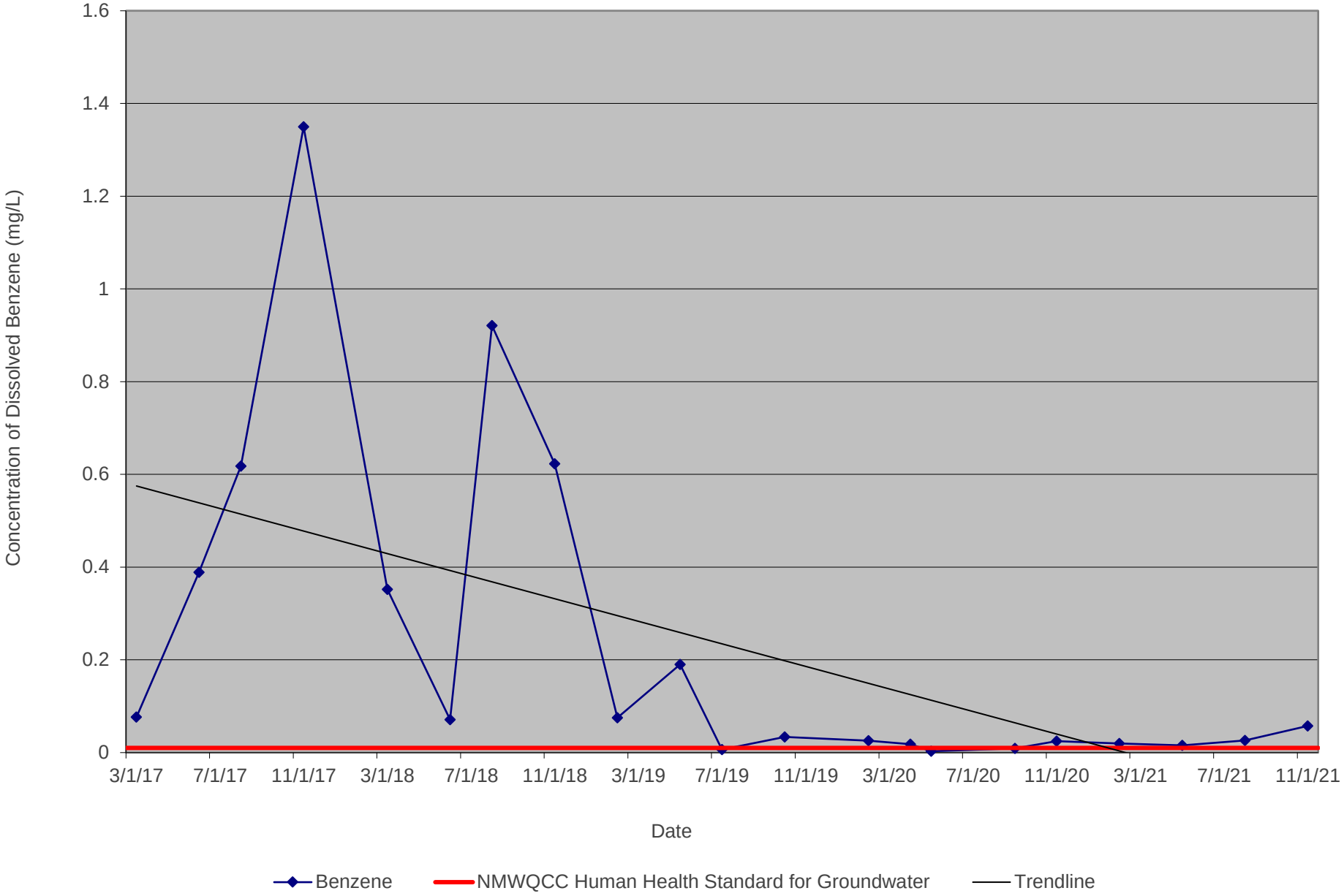


DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-18

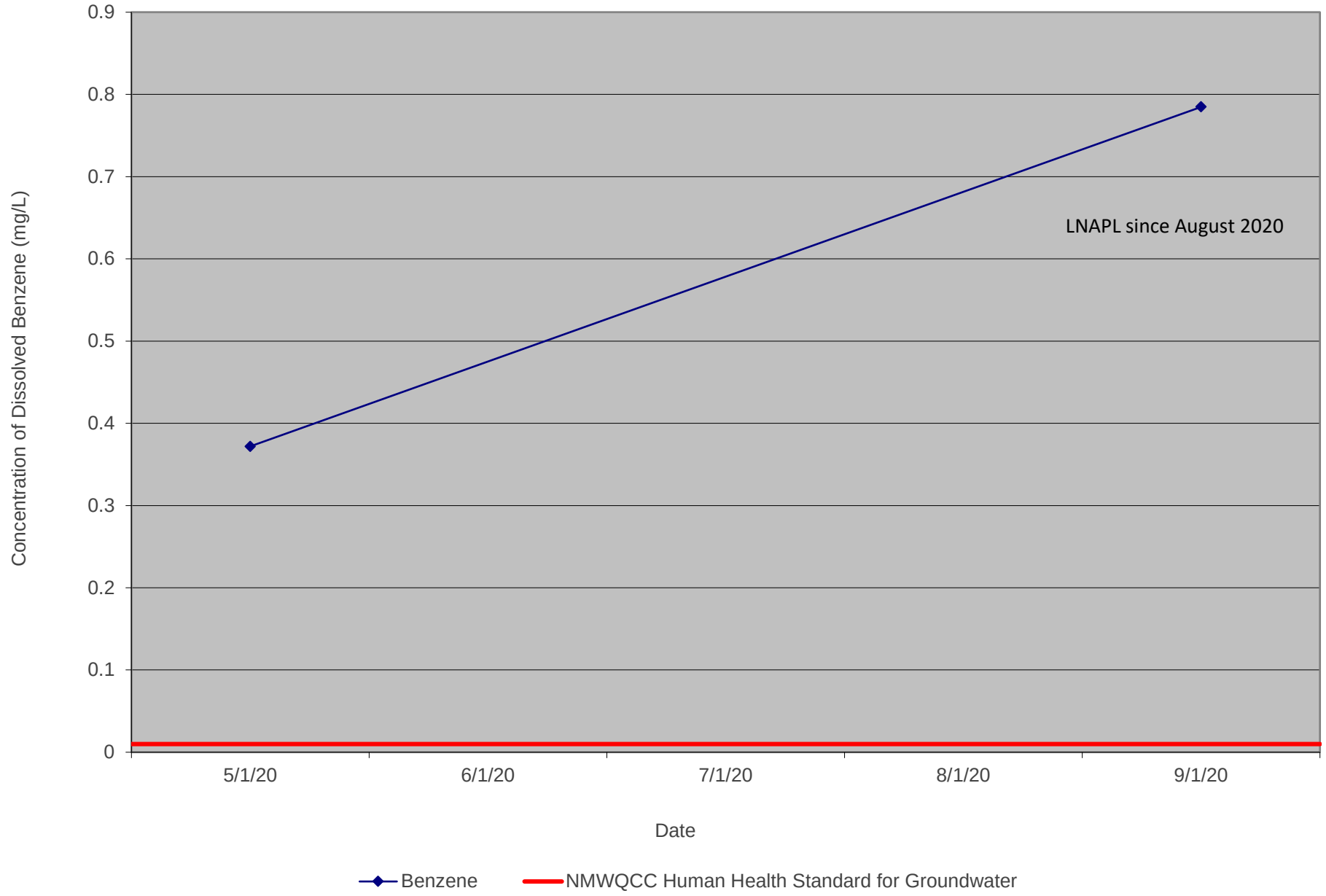


Appendix B
Charts of Dissolved Benzene Concentrations Versus Time

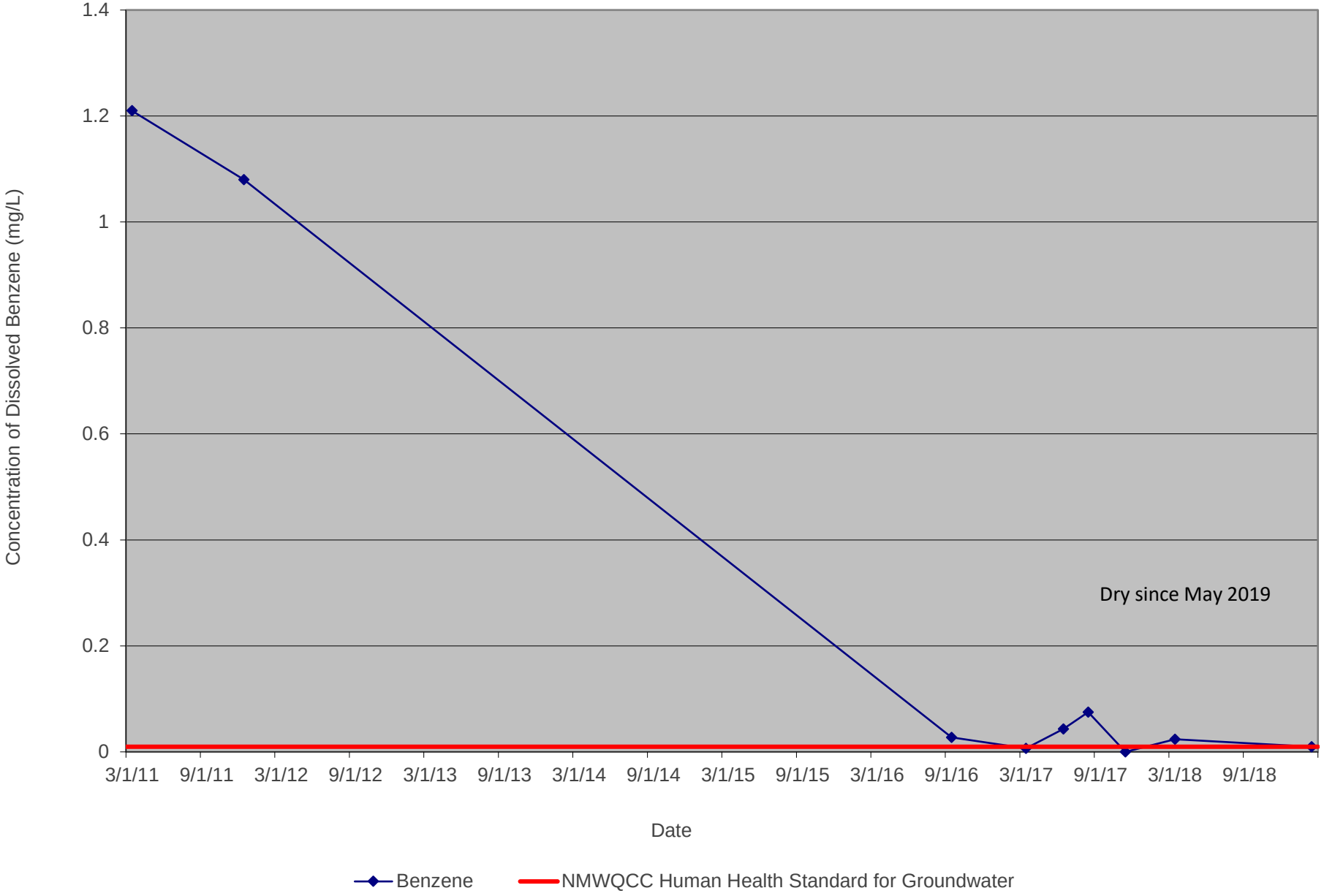
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-8R



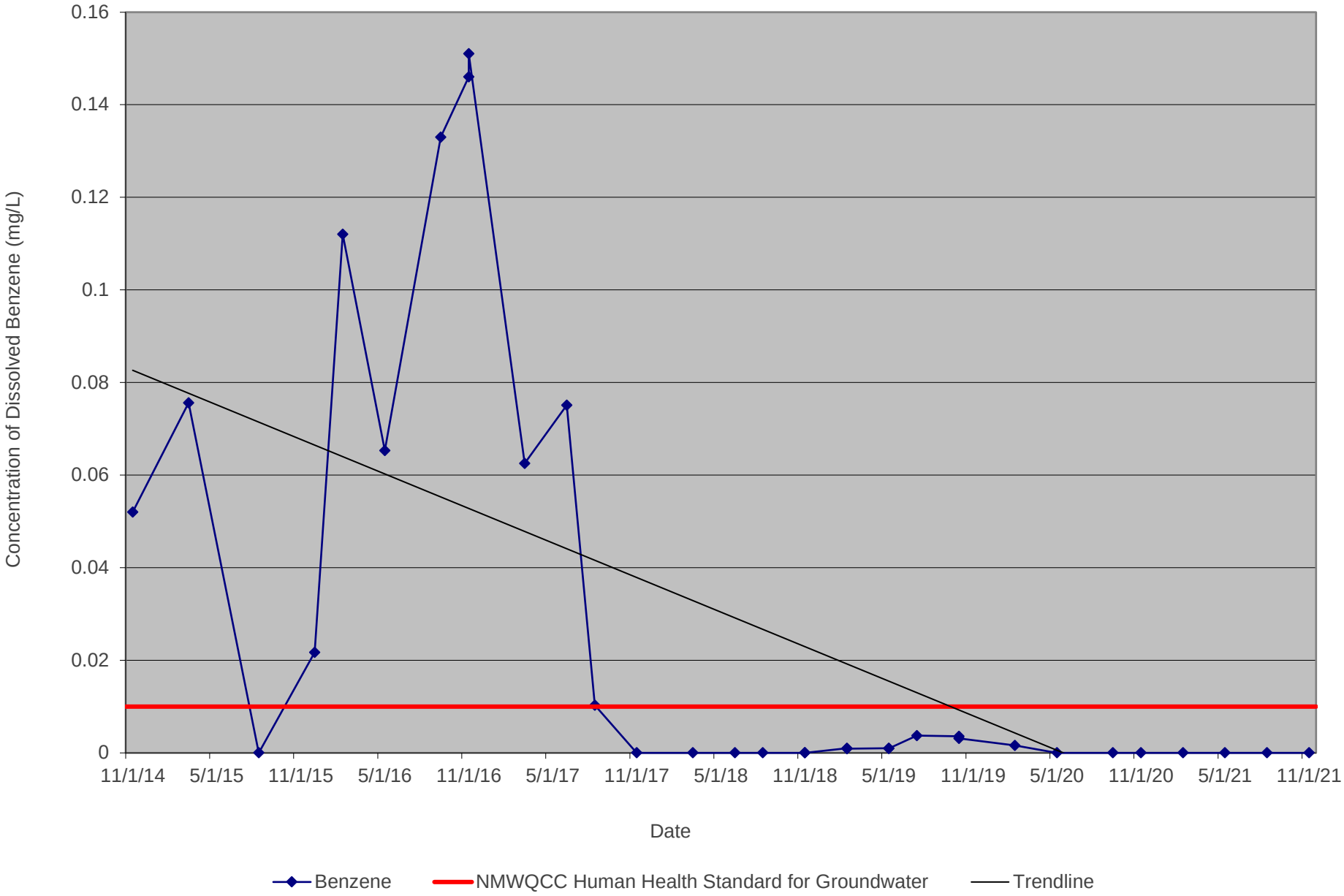
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-10R



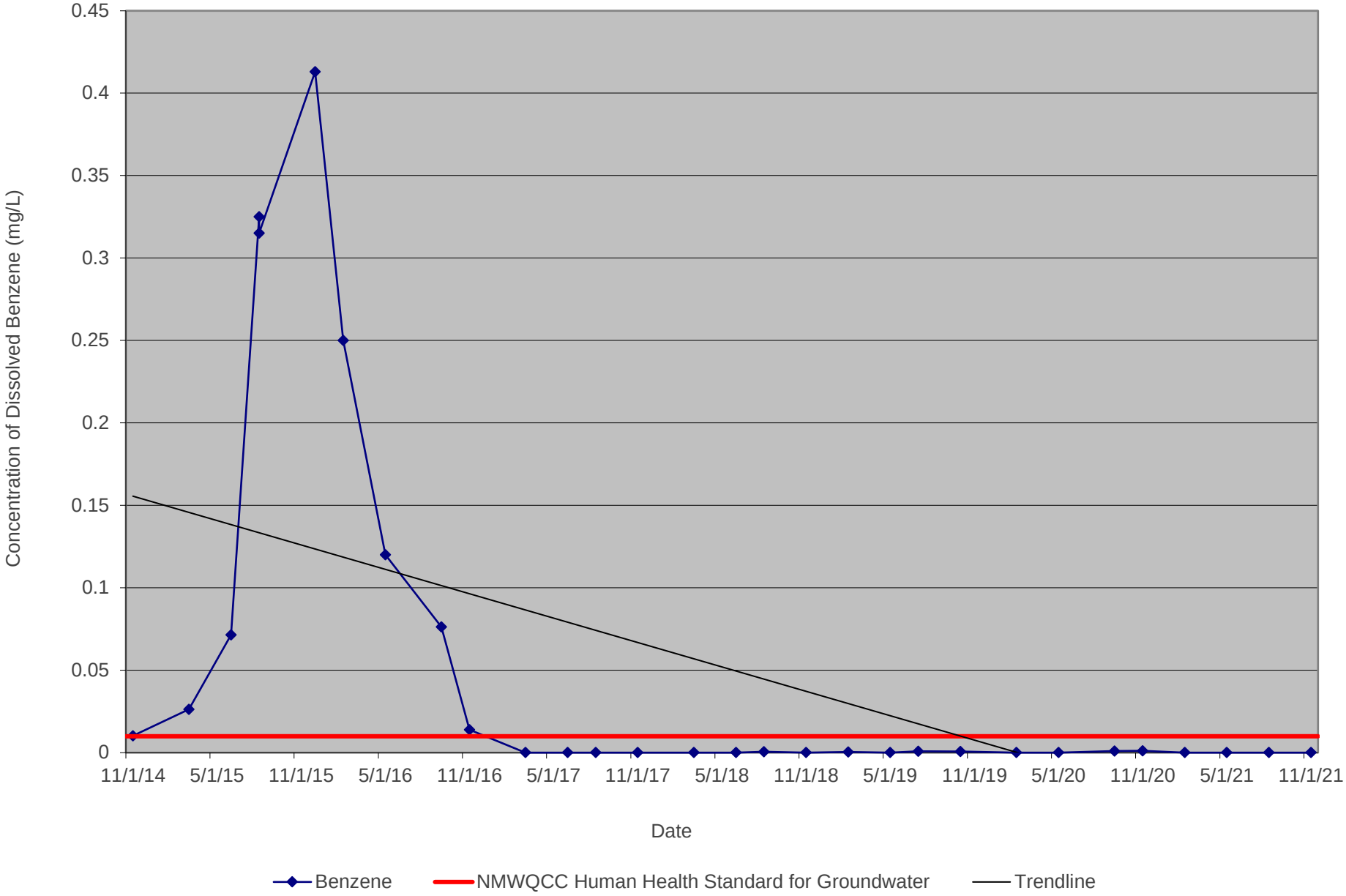
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-13



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-14



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-15



Attachment C
Certified Laboratory Analytical Reports and Chain-of-Custody Documentation

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

March 08, 2021

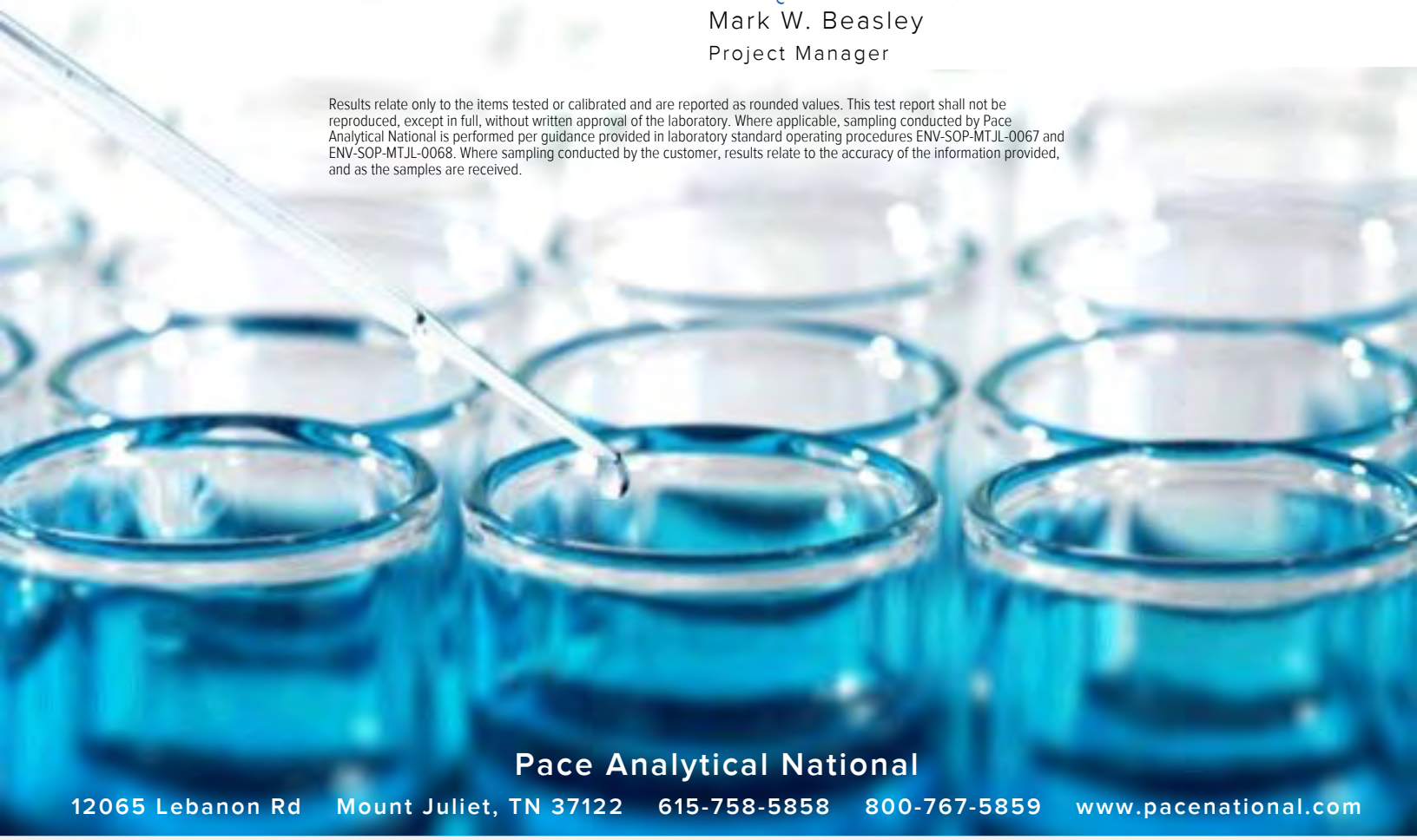
Plains All American, LP - GHD

Sample Delivery Group:	L1320384
Samples Received:	02/26/2021
Project Number:	
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
Report To:	Becky Haskell 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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1R L1320384-01 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 09:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 04:26	03/03/21 04:26	JAH	Mt. Juliet, TN

MW-4R L1320384-02 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 09:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 04:49	03/03/21 04:49	JAH	Mt. Juliet, TN

MW-5R L1320384-03 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 09:55 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 05:13	03/03/21 05:13	JAH	Mt. Juliet, TN

RW-5R L1320384-04 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 10:15 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 05:37	03/03/21 05:37	JAH	Mt. Juliet, TN

MW-7R L1320384-05 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 10:40 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 06:01	03/03/21 06:01	JAH	Mt. Juliet, TN

MW-16 L1320384-06 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 11:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 06:24	03/03/21 06:24	JAH	Mt. Juliet, TN

MW-2R L1320384-07 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 11:25 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 06:48	03/03/21 06:48	JAH	Mt. Juliet, TN

MW-10R L1320384-08 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 11:45 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 07:12	03/03/21 07:12	JAH	Mt. Juliet, TN

MW-3R L1320384-09 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 12:15 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628228	1	03/03/21 07:36	03/03/21 07:36	JAH	Mt. Juliet, TN

RW-15 L1320384-10 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 12:40 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 14:09	03/05/21 14:09	ADM	Mt. Juliet, TN

RW-14 L1320384-11 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 13:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 14:31	03/05/21 14:31	ADM	Mt. Juliet, TN

MW-11R L1320384-12 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 13:20 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 14:53	03/05/21 14:53	ADM	Mt. Juliet, TN

MW-12R L1320384-13 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 13:40 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 15:15	03/05/21 15:15	ADM	Mt. Juliet, TN

MW-13R L1320384-14 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 14:05 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 15:49	03/05/21 15:49	ADM	Mt. Juliet, TN

MW-17 L1320384-15 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 14:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 16:11	03/05/21 16:11	ADM	Mt. Juliet, TN

RW-19 L1320384-16 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 15:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 16:32	03/05/21 16:32	ADM	Mt. Juliet, TN

SAMPLE SUMMARY

MW-18 L1320384-17 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 15:25 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 16:54	03/05/21 16:54	ADM	Mt. Juliet, TN

MW-8R L1320384-18 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 15:50 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 17:16	03/05/21 17:16	ADM	Mt. Juliet, TN

DUP-1 L1320384-19 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 00:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 17:38	03/05/21 17:38	ADM	Mt. Juliet, TN

DUP-2 L1320384-20 GW

Collected by: Zach Comino | Collected date/time: 02/23/21 00:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 18:00	03/05/21 18:00	ADM	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: 03/08/2021 13:39
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1320384-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1628228 and WG1628808

#[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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2021 13:39
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1320384-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1628228 and WG1628808

#[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				

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Revised May 2010

Laboratory Review Checklist: Exception Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2021 13:39
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1320384-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1628228 and WG1628808

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 mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/03/2021 04:26	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 04:26	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 04:26	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 04:26	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*03/03/2021 04:26*	WG1628228

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	03/03/2021 04:49	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 04:49	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 04:49	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 04:49	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*03/03/2021 04:49*	WG1628228

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	U		0.000190	0.000500	0.000500	1	03/03/2021 05:13	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 05:13	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 05:13	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 05:13	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*03/03/2021 05:13*	WG1628228

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	U		0.000190	0.000500	0.000500	1	03/03/2021 05:37	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 05:37	WG1628228
Ethylbenzene	0.000444	J	0.000160	0.000500	0.000500	1	03/03/2021 05:37	WG1628228
Total Xylene	0.0232		0.000510	0.00150	0.00150	1	03/03/2021 05:37	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*03/03/2021 05:37*	WG1628228

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	03/03/2021 06:01	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 06:01	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 06:01	WG1628228
Total Xylene	0.00299		0.000510	0.00150	0.00150	1	03/03/2021 06:01	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*03/03/2021 06:01*	WG1628228

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	03/03/2021 06:24	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 06:24	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 06:24	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 06:24	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*03/03/2021 06:24*	WG1628228

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	03/03/2021 06:48	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 06:48	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 06:48	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 06:48	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*03/03/2021 06:48*	WG1628228

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	03/03/2021 07:12	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 07:12	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 07:12	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 07:12	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*107*				*79.0-125*		*03/03/2021 07:12*	WG1628228

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	03/03/2021 07:36	WG1628228
Toluene	U		0.000412	0.00100	0.00100	1	03/03/2021 07:36	WG1628228
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/03/2021 07:36	WG1628228
Total Xylene	U		0.000510	0.00150	0.00150	1	03/03/2021 07:36	WG1628228
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*03/03/2021 07:36*	WG1628228

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	0.000386	J	0.000190	0.000500	0.000500	1	03/05/2021 14:09	WG1628808
Toluene	0.00112		0.000412	0.00100	0.00100	1	03/05/2021 14:09	WG1628808
Ethylbenzene	0.000534		0.000160	0.000500	0.000500	1	03/05/2021 14:09	WG1628808
Total Xylene	0.00110	J	0.000510	0.00150	0.00150	1	03/05/2021 14:09	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 14:09*	WG1628808

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	03/05/2021 14:31	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 14:31	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 14:31	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 14:31	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 14:31*	WG1628808

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	U		0.000190	0.000500	0.000500	1	03/05/2021 14:53	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 14:53	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 14:53	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 14:53	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/05/2021 14:53*	WG1628808

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	0.000723		0.000190	0.000500	0.000500	1	03/05/2021 15:15	WG1628808
Toluene	0.00279		0.000412	0.00100	0.00100	1	03/05/2021 15:15	WG1628808
Ethylbenzene	0.00136		0.000160	0.000500	0.000500	1	03/05/2021 15:15	WG1628808
Total Xylene	0.000757	J	0.000510	0.00150	0.00150	1	03/05/2021 15:15	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 15:15*	WG1628808

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	03/05/2021 15:49	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 15:49	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 15:49	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 15:49	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 15:49*	WG1628808

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	U		0.000190	0.000500	0.000500	1	03/05/2021 16:11	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 16:11	WG1628808
Ethylbenzene	0.000354	J	0.000160	0.000500	0.000500	1	03/05/2021 16:11	WG1628808
Total Xylene	0.00439		0.000510	0.00150	0.00150	1	03/05/2021 16:11	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 16:11*	WG1628808

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	0.00227		0.000190	0.000500	0.000500	1	03/05/2021 16:32	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 16:32	WG1628808
Ethylbenzene	0.00147		0.000160	0.000500	0.000500	1	03/05/2021 16:32	WG1628808
Total Xylene	0.00777		0.000510	0.00150	0.00150	1	03/05/2021 16:32	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 16:32*	WG1628808

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	0.000304	J	0.000190	0.000500	0.000500	1	03/05/2021 16:54	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 16:54	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 16:54	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 16:54	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 16:54*	WG1628808

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	0.0155		0.000190	0.000500	0.000500	1	03/05/2021 17:16	WG1628808
Toluene	0.00326		0.000412	0.00100	0.00100	1	03/05/2021 17:16	WG1628808
Ethylbenzene	0.00343		0.000160	0.000500	0.000500	1	03/05/2021 17:16	WG1628808
Total Xylene	0.0114		0.000510	0.00150	0.00150	1	03/05/2021 17:16	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 17:16*	WG1628808

DUP-1
Collected date/time: 02/23/21 00:00

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	03/05/2021 17:38	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 17:38	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 17:38	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 17:38	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 17:38*	WG1628808

DUP-2
Collected date/time: 02/23/21 00:00
L1320384

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	03/05/2021 18:00	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 18:00	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 18:00	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 18:00	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/05/2021 18:00*	WG1628808

Method Blank (MB)

(MB) R3626788-3 03/02/21 22:57

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)	*110*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3626788-1 03/02/21 21:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0501	100	77.0-122	
Toluene	0.0500	0.0541	108	80.0-121	
Ethylbenzene	0.0500	0.0551	110	80.0-123	
Total Xylene	0.150	0.171	114	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*110*	*79.0-125*	

Method Blank (MB)

(MB) R3627779-3 03/05/21 10:50

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	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) R3627779-1 03/05/21 09:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0498	99.6	77.0-122	
Toluene	0.0500	0.0495	99.0	80.0-121	
Ethylbenzene	0.0500	0.0499	99.8	80.0-123	
Total Xylene	0.150	0.150	100	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*103*	*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
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

Plains All American, LP - GHD

2135 S. Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
1106 Griffith Drive
Midland, TX 79706

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com (see remarks)**

Project Description: **Darr Angell #4**

City/State Collected: Lovington, NM

Phone: **432-250-7917**
Fax:

Client Project # **SRS #: 2001-10876**

Lab Project # 11209899

Collected by (print): Zach Comino

Site/Facility ID # Darr Angell #4

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X 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

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 # 1320384
1238

Acctnum: **Plains GHD**
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 10m/Amb-HCL	Remarks	Sample # (lab only)
MW-1R	Grab	GW		02/23/2021	0900	3	X		-01
MW-4R	Grab	GW		02/23/2021	0930	3	X		-02
MW-5R		GW			0955				-03
RW-5R		GW			1015				-04
MW-7R		GW			1040				-05
MW-16		GW			1100				-06
MW-2R		GW			1125				-07
MW-10R		GW			1145				-08
MW-3R		GW			1215				-09
RW-15		GW			1240				-10

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

Remarks:
Email final report to becky.haskell@ghd.com, cjbryan@paalp.com, algroves@paalp.com and maochoa@paalp.com

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS X 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) Zach Comino	Date: 2-25-21 02/23/2021	Time: 1100 1600	Received by: (Signature)	Trip Blank Received: Yes / No 0 HCL / MeoH TBR	
Relinquished by : (Signature)	Date: 2-25-21	Time: 16:00	Received by: (Signature)	Temp: 2.5 1.1 2.4 °C	Bottles Received: 40
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 02/26/21	Time: 09:00

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:
Camille Bryant
1106 Griffith Drive
Midland, TX 79706

Pres Chk

Analysis / Container / Preservative

Chain of Custody

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

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com (see remarks)**

Project Description: **Darr Angell #4**

City/State Collected:

Phone: **432-250-7917**
Fax:

Client Project # **SRS #: 2001-10876**

Lab Project # 11209899

L # 1320384

Collected by (print): Zach Comino

Site/Facility ID # Darr Angell #4

P.O. #

Table #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Acctnum: **Plains GHD**
Template:
Prelogin:
TSR:
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 10m/Amb-HCL	Remarks	Sample # (lab only)
RW-14	Grab	GW		02/23/2021	1300	3	X		-11
MW-11R	Grab	GW		02/23/2021	1320	3	X		-12
MW-12R		GW			1340				-13
MW-13R		GW			1405				-14
MW-17		GW			1430				-15
RW-19		GW			1500				-16
MW-18		GW			1525				-17
MW-8R		GW			1550				-18
Dup-1		GW			-				-19
Dup-2		GW			-				-20

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

Remarks:
Email final report to becky.haskell@ghd.com, cjbryan@paalp.com, algroves@paalp.com and maochoa@paalp.com

pH _____ 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	
Zach Comino	2-25-21	11:00			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C	Bottles Received:
	2-25-21	16:00	SOA	3.5-1.2=4	60
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:
				02/26/21	04:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

June 07, 2021

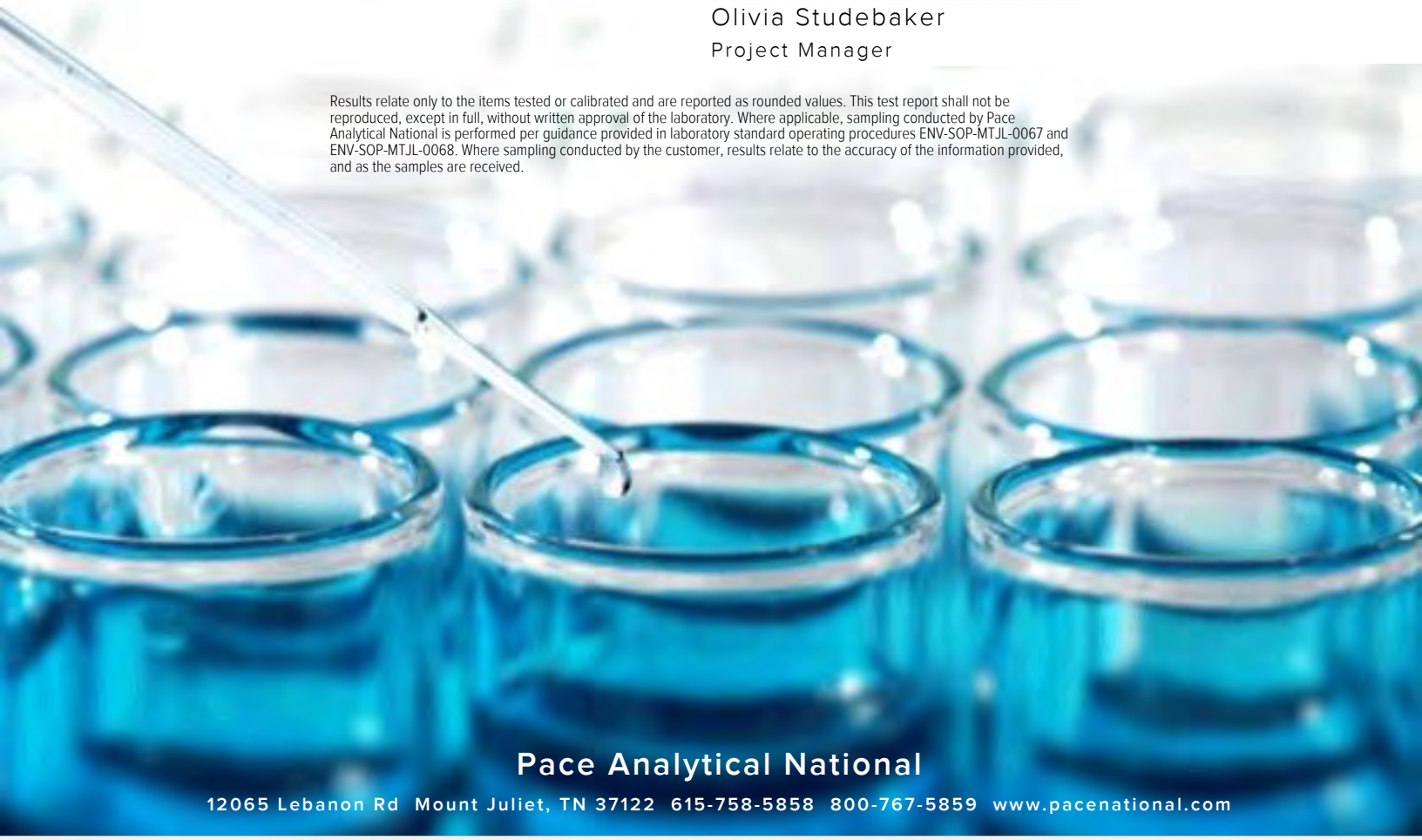
Plains All American, LP - GHD

Sample Delivery Group:	L1357546
Samples Received:	05/25/2021
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
Report To:	Becky Haskell 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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1R L1357546-01 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 11:00 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 01:28	06/02/21 01:28	BMB	Mt. Juliet, TN

MW-2R L1357546-02 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 11:15 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 01:54	06/02/21 01:54	BMB	Mt. Juliet, TN

MW-3R L1357546-03 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 11:30 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 02:21	06/02/21 02:21	BMB	Mt. Juliet, TN

MW-4R L1357546-04 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 11:45 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 02:48	06/02/21 02:48	BMB	Mt. Juliet, TN

MW-5R L1357546-05 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 12:00 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 03:14	06/02/21 03:14	BMB	Mt. Juliet, TN

MW-10R L1357546-06 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 12:15 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 03:40	06/02/21 03:40	BMB	Mt. Juliet, TN

MW-11R L1357546-07 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 12:30 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 04:07	06/02/21 04:07	BMB	Mt. Juliet, TN

MW-13R L1357546-08 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 12:45 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 04:33	06/02/21 04:33	BMB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

RW-14 L1357546-09 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 13:15 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 05:00	06/02/21 05:00	BMB	Mt. Juliet, TN

MW-7R L1357546-10 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 13:30 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 05:26	06/02/21 05:26	BMB	Mt. Juliet, TN

MW-17 L1357546-11 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 13:45 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 05:53	06/02/21 05:53	BMB	Mt. Juliet, TN

RW-5R L1357546-12 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 14:00 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 06:19	06/02/21 06:19	BMB	Mt. Juliet, TN

MW-18 L1357546-13 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 14:15 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 06:46	06/02/21 06:46	BMB	Mt. Juliet, TN

MW-12R L1357546-14 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 14:30 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 07:12	06/02/21 07:12	BMB	Mt. Juliet, TN

RW-19 L1357546-15 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 14:45 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 07:39	06/02/21 07:39	BMB	Mt. Juliet, TN

RW-15 L1357546-16 GW

Collected by: Matthew Laughlin | Collected date/time: 05/21/21 15:00 | Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680689	1	06/02/21 08:05	06/02/21 08:05	BMB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

SAMPLE SUMMARY

MW-8R L1357546-17 GW

Collected by: Matthew Laughlin
Collected date/time: 05/21/21 15:15
Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1681729	1	06/03/21 12:53	06/03/21 12:53	BMB	Mt. Juliet, TN

DUP-1 L1357546-18 GW

Collected by: Matthew Laughlin
Collected date/time: 05/21/21 00:00
Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680693	1	06/02/21 03:27	06/02/21 03:27	DWR	Mt. Juliet, TN

DUP-2 L1357546-19 GW

Collected by: Matthew Laughlin
Collected date/time: 05/21/21 00:00
Received date/time: 05/25/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1680693	1	06/02/21 03:49	06/02/21 03:49	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.

Olivia Studebaker
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1357546-14	MW-12R	8021B
L1357546-16	RW-15	8021B

Revised May 2010

Laboratory Data Package Cover Page

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

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 06/07/2021 13:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1357546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1681729, WG1680693 and WG1680689

#[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			1
		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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 06/07/2021 13:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1357546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1681729, WG1680693 and WG1680689

#[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.
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5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 06/07/2021 13:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1357546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1681729, WG1680693 and WG1680689

ER #[1]	Description
1	8021B WG1680689 L1357546-14 and 16: 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	06/02/2021 01:28	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 01:28	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 01:28	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 01:28	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*110*				*79.0-125*		*06/02/2021 01:28*	WG1680689

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	06/02/2021 01:54	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 01:54	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 01:54	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 01:54	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 01:54*	WG1680689

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	06/02/2021 02:21	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 02:21	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 02:21	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 02:21	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*110*				*79.0-125*		*06/02/2021 02:21*	WG1680689

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	06/02/2021 02:48	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 02:48	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 02:48	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 02:48	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 02:48*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 03:14	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 03:14	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 03:14	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 03:14	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 03:14*	WG1680689

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	06/02/2021 03:40	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 03:40	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 03:40	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 03:40	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*06/02/2021 03:40*	WG1680689

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	06/02/2021 04:07	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 04:07	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 04:07	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 04:07	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 04:07*	WG1680689

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	0.000832		0.000190	0.000500	0.000500	1	06/02/2021 04:33	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 04:33	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 04:33	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 04:33	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*110*				*79.0-125*		*06/02/2021 04:33*	WG1680689

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	06/02/2021 05:00	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 05:00	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 05:00	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 05:00	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*110*				*79.0-125*		*06/02/2021 05:00*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 05:26	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 05:26	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 05:26	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 05:26	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 05:26*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 05:53	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 05:53	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 05:53	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 05:53	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*06/02/2021 05:53*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 06:19	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 06:19	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 06:19	WG1680689
Total Xylene	0.00167		0.000510	0.00150	0.00150	1	06/02/2021 06:19	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 06:19*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 06:46	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 06:46	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 06:46	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 06:46	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 06:46*	WG1680689

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	0.000193	J	0.000190	0.000500	0.000500	1	06/02/2021 07:12	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 07:12	WG1680689
Ethylbenzene	0.00160		0.000160	0.000500	0.000500	1	06/02/2021 07:12	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 07:12	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*06/02/2021 07:12*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 07:39	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 07:39	WG1680689
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 07:39	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 07:39	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*108*				*79.0-125*		*06/02/2021 07:39*	WG1680689

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	U		0.000190	0.000500	0.000500	1	06/02/2021 08:05	WG1680689
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 08:05	WG1680689
Ethylbenzene	0.000262	J	0.000160	0.000500	0.000500	1	06/02/2021 08:05	WG1680689
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 08:05	WG1680689
(S) a,a,a-Trifluorotoluene(PID)	*109*				*79.0-125*		*06/02/2021 08:05*	WG1680689

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	0.0260		0.000190	0.000500	0.000500	1	06/03/2021 12:53	WG1681729
Toluene	U		0.000412	0.00100	0.00100	1	06/03/2021 12:53	WG1681729
Ethylbenzene	0.00228		0.000160	0.000500	0.000500	1	06/03/2021 12:53	WG1681729
Total Xylene	0.00362		0.000510	0.00150	0.00150	1	06/03/2021 12:53	WG1681729
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*06/03/2021 12:53*	WG1681729

DUP-1
Collected date/time: 05/21/21 00:00
L1357546

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	U		0.000190	0.000500	0.000500	1	06/02/2021 03:27	WG1680693
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 03:27	WG1680693
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 03:27	WG1680693
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 03:27	WG1680693
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*06/02/2021 03:27*	WG1680693

DUP-2
Collected date/time: 05/21/21 00:00
L1357546

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	0.000327	J	0.000190	0.000500	0.000500	1	06/02/2021 03:49	WG1680693
Toluene	U		0.000412	0.00100	0.00100	1	06/02/2021 03:49	WG1680693
Ethylbenzene	U		0.000160	0.000500	0.000500	1	06/02/2021 03:49	WG1680693
Total Xylene	U		0.000510	0.00150	0.00150	1	06/02/2021 03:49	WG1680693
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*06/02/2021 03:49*	WG1680693

Method Blank (MB)

(MB) R3663169-2 06/01/21 23:15

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)	*108*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3663169-1 06/01/21 22:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0552	110	77.0-122	
Toluene	0.0500	0.0497	99.4	80.0-121	
Ethylbenzene	0.0500	0.0561	112	80.0-123	
Total Xylene	0.150	0.151	101	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*109*	*79.0-125*	

Method Blank (MB)

(MB) R3663125-2 06/02/21 03:05

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)	*105*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3663125-1 06/02/21 01:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0527	105	77.0-122	
Toluene	0.0500	0.0525	105	80.0-121	
Ethylbenzene	0.0500	0.0554	111	80.0-123	
Total Xylene	0.150	0.155	103	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*104*	*79.0-125*	

Method Blank (MB)

(MB) R3663261-3 06/03/21 09:44

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)	*105*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3663261-1 06/03/21 08:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0516	103	77.0-122	
Toluene	0.0500	0.0523	105	80.0-121	
Ethylbenzene	0.0500	0.0558	112	80.0-123	
Total Xylene	0.150	0.156	104	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*105*	*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
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to:
Becky Haskell

Email To:
becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description:
Darr Angell #4 SRS2001-10876

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project #
11209899/02

Lab Project #
PLAINSGHD-11209899

Collected by (print):
Matthew Laughlin

Site/Facility ID #
SRS2001-10876

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

No. of Cntrs

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1357548

Table F044

Acctnum: **PLAINSGHD**
Template: **T167390**
Prelogin: **P844055**
PM: **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)
MW-1R	G	GW	-	05/21/21	1100	3	X		-1
MW-2R	G	GW	-	05/21/21	1115	3	X		-2
MW-3R	G	GW	-	05/21/21	1130	3	X		-3
MW-4R	G	GW	-	05/21/21	1145	3	X		-4
MW-5R	G	GW	-	05/21/21	1200	3	X		-5
MW-10R	G	GW	-	05/21/21	1215	3	X		-6
MW-11R	G	GW	-	05/21/21	1230	3	X		-7
MW-13R	G	GW	-	05/21/21	1245	3	X		-8
RW-14	G	GW	-	05/21/21	1315	3	X		-9
MW-7R	G	GW	-	05/21/21	1330	3	X		-10

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

Remarks:

pH _____ 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
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	05/24/21	1100		Nathan
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	5-24-21	1630	SWS	0,1702021 57
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Olivia Cruz	5/25/21 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to:
Becky Haskell

Email To:
becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description:
Darr Angell #4 SRS2001-10876

City/State Collected:

Please Circle:
PT MT CT ET

Phone: **432-250-7917**

Client Project #
11209899/02

Lab Project #
PLAINSGHD-11209899

Collected by (print):
Matthew Laughlin

Site/Facility ID #
SRS2001-10876

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

No. of Cntrs

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-17	G	GW	-	05/21/21	1345	3	X		-10
RW-5R	G	GW	-	05/21/21	1400	3	X		-12
MW-18	G	GW	-	05/21/21	1415	3	X		-13
MW-12R	G	GW	-	05/21/21	1430	3	X		-14
RW-19	G	GW	-	05/21/21	1445	3	X		-15
RW-15	G	GW	-	05/21/21	1500	3	X		-16
MW-8R	G	GW	-	05/21/21	1515	3	X		-17
Dup-1	G	GW	-	05/21/21	-	3	X		-18
Dup-R	G	GW	-	05/21/21	-	3	X		-19
		GW							

Chain of Custody Page 2 of 2

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SDG # L1357546

Table #

Acctnum: **PLAINSGHD**
Template: **T167390**
Prelogin: **P844055**
PM: **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:

pH _____ 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
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	05/24/21	11:00		Nathan
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1 °C Bottles Received: 57
	5-24-21	16:30	Scott	4.1+0.2
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/25/21 Time: 8:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®

ANALYTICAL REPORT

August 27, 2021

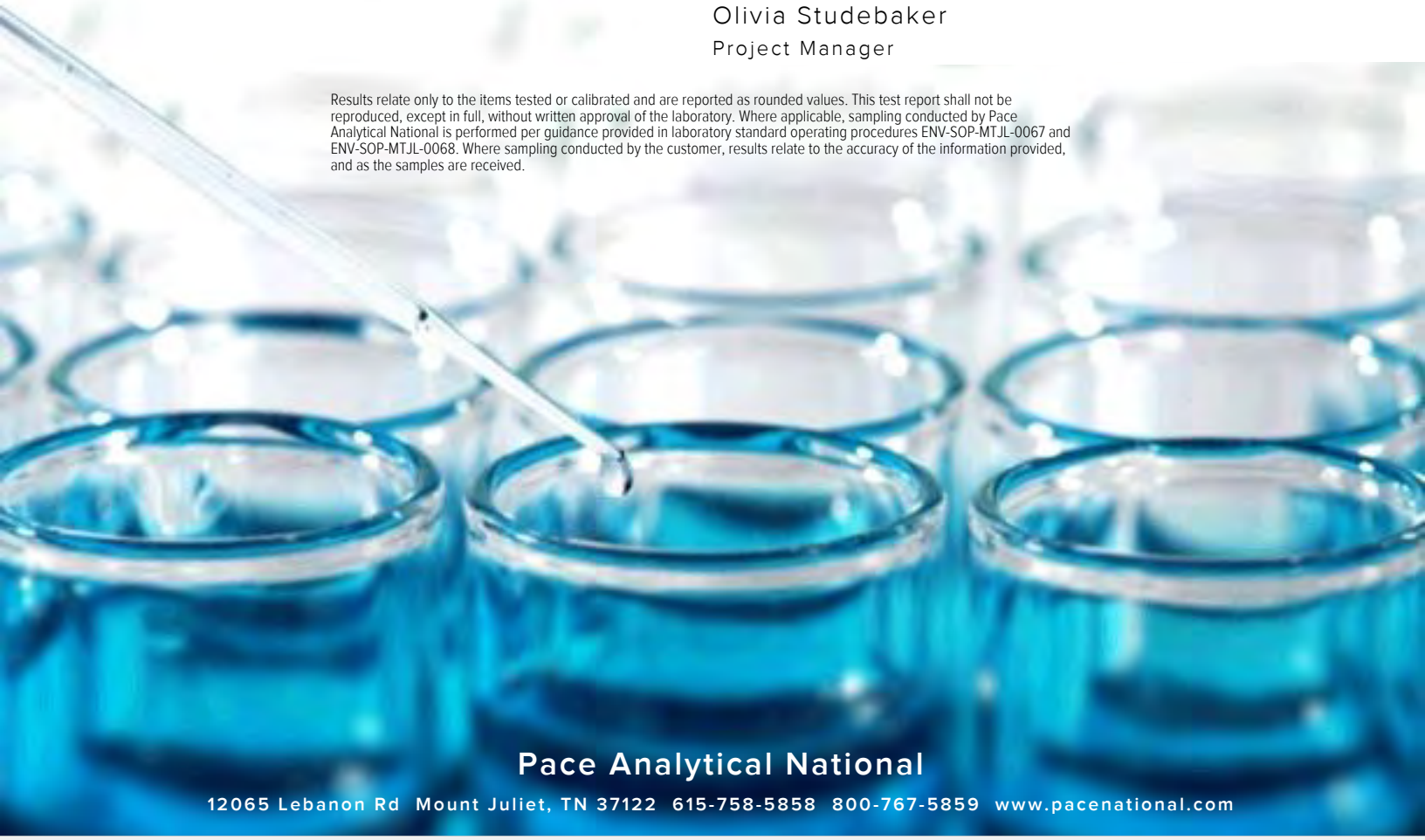
Plains All American, LP - GHD

Sample Delivery Group:	L1391192
Samples Received:	08/17/2021
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
Report To:	Becky Haskell 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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1R L1391192-01 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 09:15 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 00:16	08/18/21 00:16	JHH	Mt. Juliet, TN

MW-2R L1391192-02 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 09:30 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 00:38	08/18/21 00:38	JHH	Mt. Juliet, TN

MW-3R L1391192-03 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 09:45 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 01:00	08/18/21 01:00	JHH	Mt. Juliet, TN

MW-4R L1391192-04 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 10:00 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 01:21	08/18/21 01:21	JHH	Mt. Juliet, TN

MW-5R L1391192-05 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 10:15 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 01:43	08/18/21 01:43	JHH	Mt. Juliet, TN

MW-10R L1391192-06 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 10:30 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 02:43	08/18/21 02:43	JHH	Mt. Juliet, TN

MW-11R L1391192-07 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 10:45 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 03:05	08/18/21 03:05	JHH	Mt. Juliet, TN

MW-13R L1391192-08 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 11:00 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 03:27	08/18/21 03:27	JHH	Mt. Juliet, TN

RW-14 L1391192-09 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 11:15 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 03:48	08/18/21 03:48	JHH	Mt. Juliet, TN

MW-7R L1391192-10 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 11:30 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 04:10	08/18/21 04:10	JHH	Mt. Juliet, TN

MW-17 L1391192-11 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 11:45 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 04:31	08/18/21 04:31	JHH	Mt. Juliet, TN

RW-5R L1391192-12 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 12:00 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 04:53	08/18/21 04:53	JHH	Mt. Juliet, TN

MW-18 L1391192-13 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 12:15 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 05:14	08/18/21 05:14	JHH	Mt. Juliet, TN

MW-12R L1391192-14 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 12:30 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 05:36	08/18/21 05:36	JHH	Mt. Juliet, TN

RW-19 L1391192-15 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 12:45 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 05:57	08/18/21 05:57	JHH	Mt. Juliet, TN

RW-15 L1391192-16 GW

Collected by: David Fletcher | Collected date/time: 08/13/21 13:00 | Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 06:19	08/18/21 06:19	JHH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

MW-8R L1391192-17 GW

Collected by: David Fletcher
Collected date/time: 08/13/21 13:15
Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 06:41	08/18/21 06:41	JHH	Mt. Juliet, TN

DUP-1 L1391192-18 GW

Collected by: David Fletcher
Collected date/time: 08/13/21 00:00
Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 07:02	08/18/21 07:02	JHH	Mt. Juliet, TN

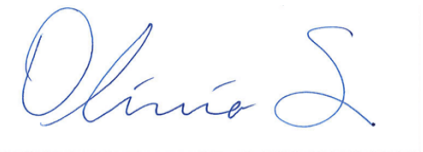
DUP-2 L1391192-19 GW

Collected by: David Fletcher
Collected date/time: 08/13/21 00:00
Received date/time: 08/17/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1724955	1	08/18/21 07:24	08/18/21 07:24	JHH	Mt. Juliet, TN

CASE NARRATIVE

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

Revised May 2010

Laboratory Data Package Cover Page

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

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 08/27/2021 12:30
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1391192-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1724955

#[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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 08/27/2021 12:30
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1391192-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1724955

#[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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 08/27/2021 12:30
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1391192-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1724955

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 mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/18/2021 00:16	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 00:16	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 00:16	WG1724955
Total Xylene	0.000745	J	0.000510	0.00150	0.00150	1	08/18/2021 00:16	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/18/2021 00:16*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	08/18/2021 00:38	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 00:38	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 00:38	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 00:38	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 00:38*	WG1724955

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	U		0.000190	0.000500	0.000500	1	08/18/2021 01:00	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 01:00	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 01:00	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 01:00	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 01:00*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	08/18/2021 01:21	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 01:21	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 01:21	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 01:21	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 01:21*	WG1724955

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	08/18/2021 01:43	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 01:43	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 01:43	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 01:43	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 01:43*	WG1724955

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	U		0.000190	0.000500	0.000500	1	08/18/2021 02:43	WG1724955
Toluene	0.000511	J	0.000412	0.00100	0.00100	1	08/18/2021 02:43	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 02:43	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 02:43	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/18/2021 02:43*	WG1724955

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	08/18/2021 03:05	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 03:05	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 03:05	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 03:05	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 03:05*	WG1724955

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	0.00224		0.000190	0.000500	0.000500	1	08/18/2021 03:27	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 03:27	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 03:27	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 03:27	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 03:27*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	08/18/2021 03:48	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 03:48	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 03:48	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 03:48	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 03:48*	WG1724955

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	08/18/2021 04:10	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 04:10	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 04:10	WG1724955
Total Xylene	0.000755	J	0.000510	0.00150	0.00150	1	08/18/2021 04:10	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 04:10*	WG1724955

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	U		0.000190	0.000500	0.000500	1	08/18/2021 04:31	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 04:31	WG1724955
Ethylbenzene	0.000204	J	0.000160	0.000500	0.000500	1	08/18/2021 04:31	WG1724955
Total Xylene	0.00283		0.000510	0.00150	0.00150	1	08/18/2021 04:31	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 04:31*	WG1724955

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	U		0.000190	0.000500	0.000500	1	08/18/2021 04:53	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 04:53	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 04:53	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 04:53	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*107*				*79.0-125*		*08/18/2021 04:53*	WG1724955

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	U		0.000190	0.000500	0.000500	1	08/18/2021 05:14	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 05:14	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 05:14	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 05:14	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 05:14*	WG1724955

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	0.000477	J	0.000190	0.000500	0.000500	1	08/18/2021 05:36	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 05:36	WG1724955
Ethylbenzene	0.000740		0.000160	0.000500	0.000500	1	08/18/2021 05:36	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 05:36	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*08/18/2021 05:36*	WG1724955

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	08/18/2021 05:57	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 05:57	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 05:57	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 05:57	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*107*				*79.0-125*		*08/18/2021 05:57*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	U		0.000190	0.000500	0.000500	1	08/18/2021 06:19	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 06:19	WG1724955
Ethylbenzene	0.000302	J	0.000160	0.000500	0.000500	1	08/18/2021 06:19	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 06:19	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 06:19*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	0.0573		0.000190	0.000500	0.000500	1	08/18/2021 06:41	WG1724955
Toluene	0.00122		0.000412	0.00100	0.00100	1	08/18/2021 06:41	WG1724955
Ethylbenzene	0.00251		0.000160	0.000500	0.000500	1	08/18/2021 06:41	WG1724955
Total Xylene	0.00426		0.000510	0.00150	0.00150	1	08/18/2021 06:41	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/18/2021 06:41*	WG1724955

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	0.000353	J	0.000190	0.000500	0.000500	1	08/18/2021 07:02	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 07:02	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 07:02	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 07:02	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*107*				*79.0-125*		*08/18/2021 07:02*	WG1724955

DUP-2
Collected date/time: 08/13/21 00:00
L1391192

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	08/18/2021 07:24	WG1724955
Toluene	U		0.000412	0.00100	0.00100	1	08/18/2021 07:24	WG1724955
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/18/2021 07:24	WG1724955
Total Xylene	U		0.000510	0.00150	0.00150	1	08/18/2021 07:24	WG1724955
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/18/2021 07:24*	WG1724955

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3696871-2 08/17/21 23:45

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)	*106*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3696871-1 08/17/21 22:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0506	101	77.0-122	
Toluene	0.0500	0.0510	102	80.0-121	
Ethylbenzene	0.0500	0.0514	103	80.0-123	
Total Xylene	0.150	0.141	94.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*106*	*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
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD
2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: **Becky Haskell**

Email To: becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected:

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): David Fletcher

Collected by (signature):

Site/Facility ID # SRS2001-10876

P.O. #

Quote #

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
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

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SDG # 139192

H187

Acctnum: PLAINSGHD
Template: T167390
Prelogin: P863974
PM: 823 - Olivia Studebaker
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-1R	GRAB	GW	—	8-13-21	915	3	✓		01
MW-2R		GW			930				02
MW-3R		GW			945				03
MW-4R		GW			1000				04
MW-5R		GW			1015				05
MW-10R		GW			1030				06
MW-11R		GW			1045				07
MW-13R		GW			1100				08
RW-14		GW			1115				09
MW-7R		GW			1130				10

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

Remarks:

pH _____ 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
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
David Fletcher	8-16-21	830	
Relinquished by : (Signature)	Date: 8/16/21	Time: 16:30	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: +6 °C Bottles Received: 57
1,2 1,2

Date: 8/17/21 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK ✓

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: **Becky Haskell**

Email To: becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description: **Darr Angell #4 SRS2001-10876**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209899/02**

Lab Project # **PLAINSGHD-11209899**

Collected by (print): David Fletcher

Collected by (signature):

Immediately Packed on Ice N ___ Y V

Site/Facility ID # **SRS2001-10876**

P.O. #

Quote #

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

BTEX 40mlAmb-HCl

Chain of Custody Page 2 of 2

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SDG # 134192

Table #

Acctnum: **PLAINSGHD**

Template: **T167390**

Prelogin: **P863974**

PM: **823 - Olivia Studebaker**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW-17	GRAB	GW	—	8-13-21	1145			11
RW-5R		GW			1200			12
MW-18		GW			1215			13
MW-12R		GW			1230			14
RW-19		GW			1245			15
RW-15		GW			1300			16
MW-8R		GW			1315			17
DUP-1		GW						18
DUP-2		GW						19
		GW						

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

Remarks:

pH _____ 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
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8-16-21	8:30	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8-16-21	16:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes (No)
HCL / MeoH
TBR

Temp: AB 1.2 BP +0 °C Bottles Received: 57

Date: 8/17/21 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

November 26, 2021

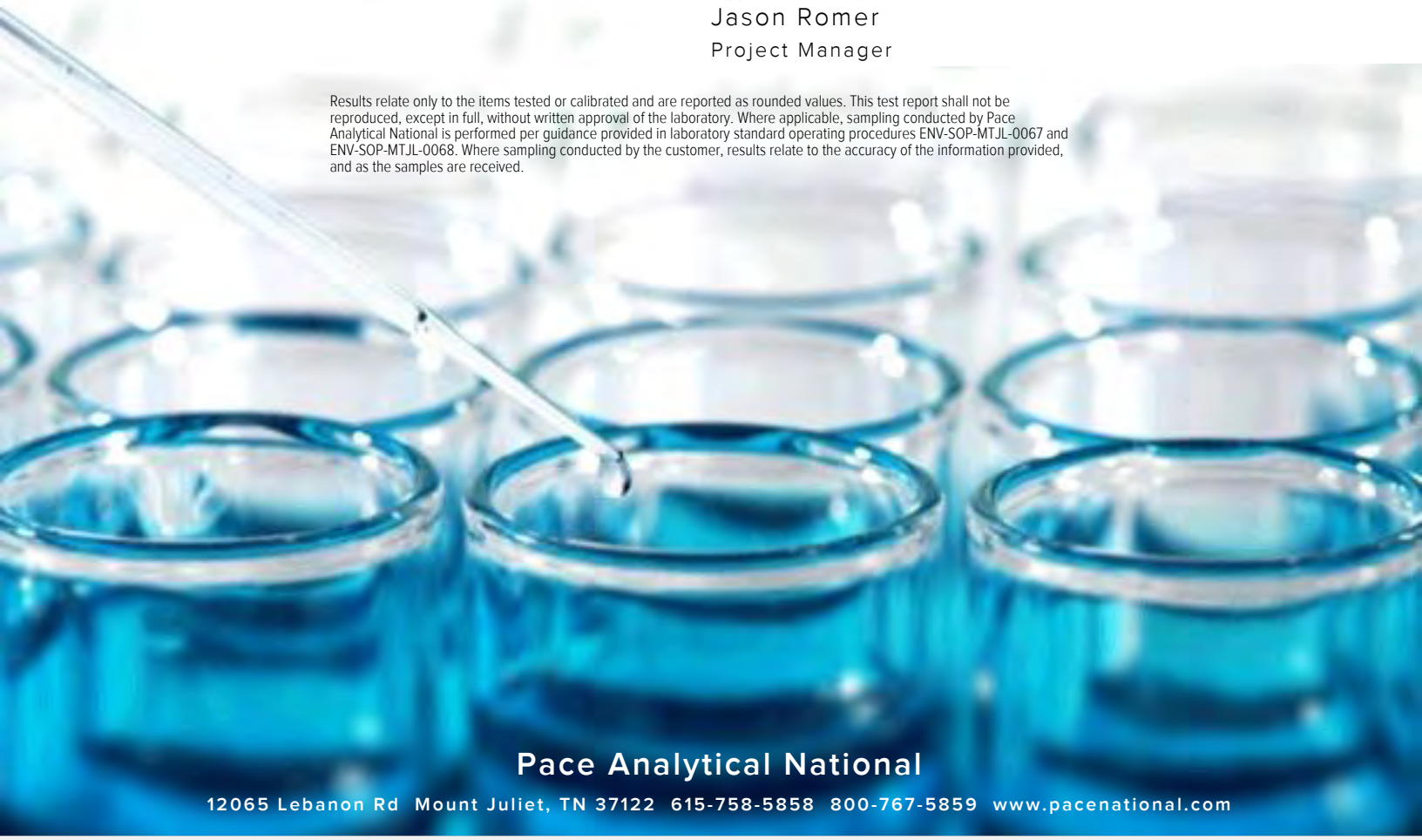
Plains All American, LP - GHD

Sample Delivery Group:	L1432060
Samples Received:	11/16/2021
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
Report To:	Becky Haskell 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Jason Romer
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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW2R L1432060-01 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:00 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 14:48	11/19/21 14:48	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 02:28	SHG	Mt. Juliet, TN

MW3R L1432060-02 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:15 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 15:09	11/19/21 15:09	BMB	Mt. Juliet, TN

MW4R L1432060-03 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:30 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 15:31	11/19/21 15:31	BMB	Mt. Juliet, TN

MW5R L1432060-04 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:45 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 15:53	11/19/21 15:53	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 02:48	SHG	Mt. Juliet, TN

MW11R L1432060-05 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:50 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 16:15	11/19/21 16:15	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 03:08	SHG	Mt. Juliet, TN

RW19 L1432060-06 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 10:55 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 16:36	11/19/21 16:36	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 03:28	SHG	Mt. Juliet, TN

MW18 L1432060-07 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 11:10 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 16:58	11/19/21 16:58	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 03:48	SHG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

RW5R L1432060-08 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 11:05 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 17:20	11/19/21 17:20	GLN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 04:08	SHG	Mt. Juliet, TN

RW14 L1432060-09 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 11:30 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 17:41	11/19/21 17:41	BMB	Mt. Juliet, TN

MW1R L1432060-10 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 11:45 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 18:03	11/19/21 18:03	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 04:28	SHG	Mt. Juliet, TN

MW7R L1432060-11 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 12:00 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 18:25	11/19/21 18:25	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 04:48	SHG	Mt. Juliet, TN

MW10R L1432060-12 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 12:15 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 18:46	11/19/21 18:46	BMB	Mt. Juliet, TN

WW17 L1432060-13 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 12:20 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 19:08	11/19/21 19:08	BMB	Mt. Juliet, TN

RW15 L1432060-14 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 12:45 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 19:30	11/19/21 19:30	BMB	Mt. Juliet, TN

MW12R L1432060-15 GW

Collected by: David Fletcher | Collected date/time: 11/12/21 13:00 | Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 19:51	11/19/21 19:51	BMB	Mt. Juliet, TN

MW13R L1432060-16 GW

Collected by: David Fletcher
Collected date/time: 11/12/21 13:15
Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 20:13	11/19/21 20:13	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775930	1	11/18/21 15:55	11/19/21 05:08	SHG	Mt. Juliet, TN

MW8R L1432060-17 GW

Collected by: David Fletcher
Collected date/time: 11/12/21 13:30
Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 20:35	11/19/21 20:35	BMB	Mt. Juliet, TN

DUP1 L1432060-18 GW

Collected by: David Fletcher
Collected date/time: 11/12/21 00:00
Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 20:56	11/19/21 20:56	BMB	Mt. Juliet, TN

DUP2 L1432060-19 GW

Collected by: David Fletcher
Collected date/time: 11/12/21 00:00
Received date/time: 11/16/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777074	1	11/19/21 21:18	11/19/21 21:18	BMB	Mt. Juliet, TN

CASE NARRATIVE

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.

Jason Romer
Project Manager

Revised May 2010

Laboratory Data Package Cover Page

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.

Jason Romer

Project Manager

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:51
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1432060-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775930 and WG1777074

#[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).

SG-365 (TRRP-13)
Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:51
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1432060-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775930 and WG1777074

#[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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:51
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1432060-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775930 and WG1777074

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 mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 14:48	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 14:48	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 14:48	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 14:48	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.9*				*79.0-125*		*11/19/2021 14:48*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 02:28	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 02:28	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:28	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 02:28	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 02:28	WG1775930
(S) Nitrobenzene-d5	*115*				*31.0-160*		*11/19/2021 02:28*	WG1775930
(S) 2-Fluorobiphenyl	*119*				*48.0-148*		*11/19/2021 02:28*	WG1775930
(S) p-Terphenyl-d14	*128*				*37.0-146*		*11/19/2021 02:28*	WG1775930

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	U		0.000190	0.000500	0.000500	1	11/19/2021 15:09	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 15:09	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 15:09	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 15:09	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.7*				*79.0-125*		*11/19/2021 15:09*	WG1777074

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	U		0.000190	0.000500	0.000500	1	11/19/2021 15:31	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 15:31	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 15:31	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 15:31	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.7*				*79.0-125*		*11/19/2021 15:31*	WG1777074

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	U		0.000190	0.000500	0.000500	1	11/19/2021 15:53	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 15:53	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 15:53	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 15:53	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.6*				*79.0-125*		*11/19/2021 15:53*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 02:48	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 02:48	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:48	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 02:48	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 02:48	WG1775930
(S) Nitrobenzene-d5	*113*				*31.0-160*		*11/19/2021 02:48*	WG1775930
(S) 2-Fluorobiphenyl	*121*				*48.0-148*		*11/19/2021 02:48*	WG1775930
(S) p-Terphenyl-d14	*136*				*37.0-146*		*11/19/2021 02:48*	WG1775930

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	U		0.000190	0.000500	0.000500	1	11/19/2021 16:15	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 16:15	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 16:15	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 16:15	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.9*				*79.0-125*		*11/19/2021 16:15*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 03:08	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 03:08	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:08	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 03:08	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 03:08	WG1775930
(S) Nitrobenzene-d5	*111*				*31.0-160*		*11/19/2021 03:08*	WG1775930
(S) 2-Fluorobiphenyl	*122*				*48.0-148*		*11/19/2021 03:08*	WG1775930
(S) p-Terphenyl-d14	*130*				*37.0-146*		*11/19/2021 03:08*	WG1775930

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	U		0.000190	0.000500	0.000500	1	11/19/2021 16:36	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 16:36	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 16:36	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 16:36	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.1*				*79.0-125*		*11/19/2021 16:36*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Dibenzofuran	0.0000372	J	0.0000191	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 03:28	WG1775930
Fluorene	0.0000203	J	0.0000169	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 03:28	WG1775930
Phenanthrene	0.000140		0.0000180	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:28	WG1775930
1-Methylnaphthalene	0.0000757	J	0.0000687	0.000250	0.000250	1	11/19/2021 03:28	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 03:28	WG1775930
(S) Nitrobenzene-d5	*111*				*31.0-160*		*11/19/2021 03:28*	WG1775930
(S) 2-Fluorobiphenyl	*117*				*48.0-148*		*11/19/2021 03:28*	WG1775930
(S) p-Terphenyl-d14	*132*				*37.0-146*		*11/19/2021 03:28*	WG1775930

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	U		0.000190	0.000500	0.000500	1	11/19/2021 16:58	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 16:58	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 16:58	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 16:58	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.7*				*79.0-125*		*11/19/2021 16:58*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 03:48	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 03:48	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:48	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 03:48	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 03:48	WG1775930
(S) Nitrobenzene-d5	*111*				*31.0-160*		*11/19/2021 03:48*	WG1775930
(S) 2-Fluorobiphenyl	*121*				*48.0-148*		*11/19/2021 03:48*	WG1775930
(S) p-Terphenyl-d14	*126*				*37.0-146*		*11/19/2021 03:48*	WG1775930

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	U		0.000190	0.000500	0.000500	1	11/19/2021 17:20	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 17:20	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 17:20	WG1777074
Total Xylene	0.00106	J	0.000510	0.00150	0.00150	1	11/19/2021 17:20	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.9*				*79.0-125*		*11/19/2021 17:20*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 04:08	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 04:08	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:08	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 04:08	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 04:08	WG1775930
(S) Nitrobenzene-d5	*119*				*31.0-160*		*11/19/2021 04:08*	WG1775930
(S) 2-Fluorobiphenyl	*127*				*48.0-148*		*11/19/2021 04:08*	WG1775930
(S) p-Terphenyl-d14	*136*				*37.0-146*		*11/19/2021 04:08*	WG1775930

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	11/19/2021 17:41	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 17:41	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 17:41	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 17:41	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.6*				*79.0-125*		*11/19/2021 17:41*	WG1777074

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	U		0.000190	0.000500	0.000500	1	11/19/2021 18:03	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 18:03	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 18:03	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 18:03	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.6*				*79.0-125*		*11/19/2021 18:03*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 04:28	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 04:28	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:28	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 04:28	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 04:28	WG1775930
(S) Nitrobenzene-d5	*114*				*31.0-160*		*11/19/2021 04:28*	WG1775930
(S) 2-Fluorobiphenyl	*122*				*48.0-148*		*11/19/2021 04:28*	WG1775930
(S) p-Terphenyl-d14	*133*				*37.0-146*		*11/19/2021 04:28*	WG1775930

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	U		0.000190	0.000500	0.000500	1	11/19/2021 18:25	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 18:25	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 18:25	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 18:25	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.5*				*79.0-125*		*11/19/2021 18:25*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 04:48	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 04:48	WG1775930
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 04:48	WG1775930
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 04:48	WG1775930
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 04:48	WG1775930
(S) Nitrobenzene-d5	*113*				*31.0-160*		*11/19/2021 04:48*	WG1775930
(S) 2-Fluorobiphenyl	*124*				*48.0-148*		*11/19/2021 04:48*	WG1775930
(S) p-Terphenyl-d14	*128*				*37.0-146*		*11/19/2021 04:48*	WG1775930

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	U		0.000190	0.000500	0.000500	1	11/19/2021 18:46	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 18:46	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 18:46	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 18:46	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.9*				*79.0-125*		*11/19/2021 18:46*	WG1777074

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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	U		0.000190	0.000500	0.000500	1	11/19/2021 19:08	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 19:08	WG1777074
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 19:08	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 19:08	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*96.4*				*79.0-125*		*11/19/2021 19:08*	WG1777074

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	U		0.000190	0.000500	0.000500	1	11/19/2021 19:30	WG1777074
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 19:30	WG1777074
Ethylbenzene	0.000330	J	0.000160	0.000500	0.000500	1	11/19/2021 19:30	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 19:30	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.3*				*79.0-125*		*11/19/2021 19:30*	WG1777074

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	0.000216	J	0.000190	0.000500	0.000500	1	11/19/2021 19:51	WG1777074
Toluene	0.00121		0.000412	0.00100	0.00100	1	11/19/2021 19:51	WG1777074
Ethylbenzene	0.000371	J	0.000160	0.000500	0.000500	1	11/19/2021 19:51	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 19:51	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*94.9*				*79.0-125*		*11/19/2021 19:51*	WG1777074

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	0.00171		0.000190	0.000500	0.000500	1	11/19/2021 20:13	WG1777074
Toluene	0.00116		0.000412	0.00100	0.00100	1	11/19/2021 20:13	WG1777074
Ethylbenzene	0.000406	J	0.000160	0.000500	0.000500	1	11/19/2021 20:13	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 20:13	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.7*				*79.0-125*		*11/19/2021 20:13*	WG1777074

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	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Acenaphthene	0.000109		0.0000190	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Dibenzofuran	0.000598		0.0000191	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 05:08	WG1775930
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Naphthalene	0.000205	J	0.0000917	0.000250	0.000250	1	11/19/2021 05:08	WG1775930
Phenanthrene	0.000215		0.0000180	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 05:08	WG1775930
1-Methylnaphthalene	0.000690		0.0000687	0.000250	0.000250	1	11/19/2021 05:08	WG1775930
2-Methylnaphthalene	0.0000798	J	0.0000674	0.000250	0.000250	1	11/19/2021 05:08	WG1775930
(S) Nitrobenzene-d5	*122*				*31.0-160*		*11/19/2021 05:08*	WG1775930
(S) 2-Fluorobiphenyl	*121*				*48.0-148*		*11/19/2021 05:08*	WG1775930
(S) p-Terphenyl-d14	*91.0*				*37.0-146*		*11/19/2021 05:08*	WG1775930

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	0.00443		0.000190	0.000500	0.000500	1	11/19/2021 20:35	WG1777074
Toluene	0.000538	J	0.000412	0.00100	0.00100	1	11/19/2021 20:35	WG1777074
Ethylbenzene	0.000238	J	0.000160	0.000500	0.000500	1	11/19/2021 20:35	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 20:35	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.3*				*79.0-125*		*11/19/2021 20:35*	WG1777074

DUP 1
Collected date/time: 11/12/21 00:00
L1432060

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	0.00182		0.000190	0.000500	0.000500	1	11/19/2021 20:56	WG1777074
Toluene	0.00114		0.000412	0.00100	0.00100	1	11/19/2021 20:56	WG1777074
Ethylbenzene	0.000406	J	0.000160	0.000500	0.000500	1	11/19/2021 20:56	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 20:56	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.3*				*79.0-125*		*11/19/2021 20:56*	WG1777074

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	0.00575		0.000190	0.000500	0.000500	1	11/19/2021 21:18	WG1777074
Toluene	0.000663	J	0.000412	0.00100	0.00100	1	11/19/2021 21:18	WG1777074
Ethylbenzene	0.000246	J	0.000160	0.000500	0.000500	1	11/19/2021 21:18	WG1777074
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 21:18	WG1777074
(S) a,a,a-Trifluorotoluene(PID)	*95.0*				*79.0-125*		*11/19/2021 21:18*	WG1777074

Method Blank (MB)

(MB) R3733934-2 11/19/21 13:57

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)	*96.7*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3733934-1 11/19/21 11:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0515	103	77.0-122	
Toluene	0.0500	0.0498	99.6	80.0-121	
Ethylbenzene	0.0500	0.0545	109	80.0-123	
Total Xylene	0.150	0.156	104	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*96.9*	*79.0-125*	

Method Blank (MB)

(MB) R3731526-3 11/18/21 23:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
Dibenzofuran	U		0.0000191	0.0000500
(S) Nitrobenzene-d5	*109*			*31.0-160*
(S) 2-Fluorobiphenyl	*119*			*48.0-148*
(S) p-Terphenyl-d14	*136*			*37.0-146*

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

(LCS) R3731526-1 11/18/21 22:48 • (LCSD) R3731526-2 11/18/21 23:08

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	0.00238	0.00235	119	117	67.0-134			1.27	20
Anthracene	0.00200	0.00239	0.00231	119	115	67.0-150			3.40	20
Acenaphthene	0.00200	0.00236	0.00235	118	117	65.0-138			0.425	20
Acenaphthylene	0.00200	0.00226	0.00220	113	110	66.0-140			2.69	20
Benzo(a)anthracene	0.00200	0.00243	0.00241	122	120	61.0-140			0.826	20
Benzo(a)pyrene	0.00200	0.00205	0.00214	102	107	60.0-143			4.30	20
Benzo(b)fluoranthene	0.00200	0.00206	0.00215	103	108	58.0-141			4.28	20
Benzo(g,h,i)perylene	0.00200	0.00199	0.00210	99.5	105	52.0-153			5.38	20
Benzo(k)fluoranthene	0.00200	0.00194	0.00203	97.0	102	58.0-148			4.53	20
Chrysene	0.00200	0.00238	0.00239	119	119	64.0-144			0.419	20
Dibenz(a,h)anthracene	0.00200	0.00203	0.00215	102	108	52.0-155			5.74	20

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

(LCS) R3731526-1 11/18/21 22:48 • (LCSD) R3731526-2 11/18/21 23:08

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	0.00256	0.00248	128	124	69.0-153			3.17	20
Fluorene	0.00200	0.00259	0.00254	129	127	64.0-136			1.95	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00205	0.00217	102	108	54.0-153			5.69	20
Naphthalene	0.00200	0.00234	0.00226	117	113	61.0-137			3.48	20
Phenanthrene	0.00200	0.00242	0.00237	121	118	62.0-137			2.09	20
Pyrene	0.00200	0.00246	0.00237	123	118	60.0-142			3.73	20
1-Methylnaphthalene	0.00200	0.00237	0.00231	118	115	66.0-142			2.56	20
2-Methylnaphthalene	0.00200	0.00222	0.00218	111	109	62.0-136			1.82	20
(S) Nitrobenzene-d5				*118*	*110*	*31.0-160*				
(S) 2-Fluorobiphenyl				*126*	*122*	*48.0-148*				
(S) p-Terphenyl-d14				*129*	*131*	*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.
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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to:
Becky Haskell

Email To:
becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description:
Darr Angell #4 SRS2001-10876

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project #
11209899/02

Lab Project #
PLAINSGHD-11209899

Collected by (print):
David Fletcher

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Site/Facility ID #
SRS2001-10876

P.O. #

Quote #

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

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl clt to c36	PAHSIMLVI 40mlAmb-NoPres-WT							Remarks	Sample # (lab only)
MW 2R	Grab	GW	WH	11-12-21	1000	6	X	X								-01
MW 3R		GW			1015	3	X									-02
MW 4R		GW			1030	3	X									-03
MW 5R		GW			1045	6	X	X								-04
MW 11R		GW			1050	6	X	X								-05
RW 19		GW			1055	6	X	X								-06
MW 18		GW			1110	6	X	X								-07
RW 5R		GW			1105	6	X	X								-08
RW 14		GW			1130	3	X									-09
MW 1R		GW			1145	6	X	X								-10

Chain of Custody Page 1 of 2

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1432060

Table # J074

Acctnum: **PLAINSGHD**

Template: **T198208**

Prelogin: **P883782**

PM: **823 - Olivia Studebaker**

PB:

Shipped Via:

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

Remarks:

pH _____ 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
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
David Fletcher	11-15-21	0700	
	11-15-21	16:00	

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.6+0.1=1.6 °C Bottles Received: 84

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Received for lab by: (Signature) Date: 11/16/21 Time: 0800

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #4 SRS2001-10876**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209899/02**

Lab Project # **PLAINSGHD-11209899**

Collected by (print): David Fletcher

Collected by (signature): David Fletcher

Immediately Packed on Ice N ___ Y ✓

Site/Facility ID # **SRS2001-10876**

P.O. #

Quote #

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 2 of 3

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1432060

Table #

Acctnum: **PLAINSGHD**

Template: **T198208**

Prelogin: **P883782**

PM: **823 - Olivia Studebaker**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl ext to C35	PAHSIMLVI 40mlAmb-NoPres-WT	Remarks	Sample # (lab only)
MW 7R	GRAB	GW	NA	11-12-21	1200	6	X	X		-11
MW 10R		GW			1215	3	X			-12
WW 17		GW			1220	3	X			-13
RW 15		GW			1245	3	X			-14
MW 12R		GW			1300	3	X			-15
MW 13R		GW			1315	6	X	X		-16
MW 8R		GW			1330	3	X			-17
DUP 1		GW				3	X			-18
DUP 2		GW				3	X			-19
		GW								

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___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:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
David Fletcher	11-15-21	0700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.2 °C Bottles Received: 84	
	11-15-21	1610			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/16/21 Time: 0800	Hold: Condition: NCF / OK

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 92043

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 92043
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis. Repair the third pump and re-install into RW-16. 2. Conduct LNAPL abatement via hand-bailing on a weekly basis for recovery wells that have a measurable amount of LNAPL, but no pump installed. 3. Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site. 4. Continue NMOCD-approved annual GWSE for PAH by Method 8270C for RW-7, 9, and 13 as applicable. 5. MW-1R, 2R, 5R, 7R, 11R, 13R, 18, 5R, and RW-19 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore NMOCD approves the removal from the annual PAH sampling schedule unless they are re-impacted by LNAPL. 6. Continue to monitor RW-9 for measurable amount of LNAPL. 7. Continue to monitor RW-7 and 13 and sample once a significant amount of groundwater is re-introduced. 8. Submit annual report to NMOCD no later than 03/31/23.	8/2/2022