By Nelson Velez at 3:34 pm, Jan 11, 2022



Review of 2020 Annual Groundwater Monitoring Report: **Content satisfactory**

Contractor recommendations approved by OCD and are as follows;

1. Continue NMOCD-approved quarterly and semiannual groundwater monitoring events

2. Continue annual sampling for PAHs during the fourth quarterly event according to directives of NMOCD. This will include RW-11, RW-12 and all wells installed during 2020 which are not impacted by LNAPL

3. Continue remediation of the soil profile and groundwater by operating the trailer mounted soil vapor extraction system. Gaseous hydrocarbon emissions will be sampled quarterly to calculate emission rates and total emissions

Submit the Annual Monitoring Report to the OCD no later than March 31, 2022.

2020 Annual Groundwater Monitoring Report

Darr Angell #2 SRS #: LF 1999-62 SW1/4, SE1/4, Section 11, T15S, R37E and NW1/4, NE1/4, Section, 14 T15S, R37E, Lea County, New Mexico NMOCD AP-007 Incident ID #: nAPP2108852096

Plains All American Pipeline LP





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1. Introduction

This 2020 Annual Groundwater Monitoring Report presents data collected at the Darr Angell No. 2 site (Site) by GHD Services Inc. (GHD), on behalf of Plains All American Pipeline, L.P. (Plains), in compliance with the New Mexico Oil Conservation Division (NMOCD) correspondence dated May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. This Site is part of NMOCD Abatement Plan number AP-007. This report presents results of quarterly gauging and sampling of monitor and recovery wells in February, May, September, and October 2020. Remedial activities included recovery of Light Non-aqueous Phase Liquid (LNAPL) and impacted groundwater by total fluid pumps, soil vapor extraction, and hand bailing, and enhanced fluid recovery (EFR).

The location of the Site is SW1/4, SE1/4, Section 11, Township 15 South, Range 37 East and NW1/4, NE1/4, Section 14, Township 15 South, Range 37 East, Lea County, New Mexico. Latitude and longitude of the Site are 33.0242° North and 103.1667° West. Location of the Site is shown on a topographic map in Figure 1.

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. A pipeline release was discovered by EOTT employees and details were submitted on a Release Notification and Corrective Action Form (C-141) to the NMOCD on July 29, 1999. The C-141 reported the release as 60 barrels (bbl.) of crude oil with no recovery. The release occurred from an 8 inch EOTT pipeline and was attributed to external pipeline corrosion.

Initial remediation activities began in August 1999 and consisted of 40 soil borings installed within and around the area of surface staining. In April and May 2000, a contractor for EOTT excavated the impacted area to approximately 4.5 feet below ground surface (bgs). Impacted soils were stockpiled on Site. Excavation resumed in April and May 2001 with the additional removal of approximately 3,000 cubic yards of impacted soil. This material was added to soil previously stockpiled on Site. Monitor wells MW-1 through MW-10 and recovery wells RW-1 through RW-7 were installed between April 2000 and December 2002. Partial backfilling of the open excavation was conducted subsequent to NMOCD approval of a backfill request, submitted on March 11, 2002. Backfill materials consisted of previously excavated caliche which had been separated from other excavated material by mechanical screening.

Approximately 3,100 cubic yards of excavated soils were placed into a treatment area, which was 2-3 feet deep, in October 2003. Quarterly mechanical tilling of the stockpile occurred throughout 2004. Analytical results detailed in the Site Restoration Work Plan and Proposed Soil Closure Strategy of January 2006 indicated concentrations of total petroleum hydrocarbons (TPH) within the soil treatment cell were below NMOCD regulatory standards. In a letter from the NMOCD dated April 5, 2006 Plains received approval to backfill the excavation at the Site. The excavation was backfilled with remediated soils contained in the soil treatment cell and contoured to grade in June 2006. A Soil Closure Request was submitted to the NMOCD. Plains received an email approving the soil closure request for the Darr No. 2 location on February 19, 2010.



Nova began managing activities at the Site on May 29, 2004. GHD began monitoring, operation, maintenance, and reporting at the Site on May 2, 2011.

Monitor well MW-5 was plugged and abandoned on September 14, 2005. Wells MW-4 and RW-7 were plugged and abandoned on October 7 and October 8, 2014, respectively. Monitor well MW-4R and recovery well RW-9 were installed on October 7, 2014. Recovery wells RW-7R, RW-8 and RW-10 were installed on October 8, 2014. Monitor well MW-12 and recovery wells RW-11 and RW-12 were installed on February 8, 2017. New wells were professionally surveyed on November 11, 2014 and June 28, 2017.

In July 2019, a Work Plan for Installation of Additional Wells and Plugging Dry wells was submitted to the NMOCD. The work plan proposed to plug and abandon nine monitor wells and one recovery well and installing seven new monitor wells and three new recovery wells. The work plan was proposed because fluid levels in several wells had declined making LNAPL recovery no longer feasible and delineation of the contaminant plume could no longer be demonstrated using the existing wells. On February 19, 2020, monitor wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11 and one recovery well RW-4 were plugged and abandoned. From February 20 through 25, monitor wells MW-3R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, and MW-13 and recovery wells RW-4R, RW-13, and RW-14 were installed at the site. Currently at the site there are nine (9) monitor wells, MW-3R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, MW-12, and MW-13, and fourteen (14) recovery wells, RW-1, RW-2, RW-3, RW-4R, RW-5, RW-6, RW-7R, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, and RW-14. A Site Details Map is presented as Figure 2.

2. Regulatory Framework

NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the New Mexico Administrative Code 20.6.2.3103 Section A, which provides the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards and Toxic Pollutant Standards for groundwater. The constituents of concern (COCs) in impacted groundwater at the Site are LNAPL, and benzene, toluene, ethylbenzene, total xylenes (BTEX), and polycyclic aromatic hydrocarbons (PAH). NMWQCC Human Health and Toxic Pollutant Standards shown in the Table 2.1 are used to guide assessment and remediation at the Site.

Analyte	NMWQCC Human Health or Toxic Pollutant 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

Table 2.1 NMWQCC Human Health and Toxic Pollutant Standards

The Site sampling schedule approved by the NMOCD in a correspondence dated April 28, 2004 and amended in NMOCD correspondence dated June 20, 2005, has the following recovery wells being sampled on a quarterly basis: RW-1, RW-2, RW-3, RW-5, and RW-6. All other wells included on the



NMOCD approved schedule have been plugged and abandoned. Monitor and recovery wells MW-3R, MW-4R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, MW-12, MW-13, RW-4R, RW-7R, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, and RW-14 are monitored on a quarterly basis to establish consistent historical data regarding dissolved-phase COCs and LNAPL thicknesses.

3. Groundwater Monitoring

Quarterly groundwater monitoring was conducted by GHD on February 10 and 14, March 25 (newly installed wells), May 11 and 18, September 15-16, and October 28 and 30, 2020. Wells were sampled in accordance with the sampling schedule described above. Wells containing measureable thicknesses of LNAPL (>0.01 feet) were not sampled. All wells were gauged during each quarterly event.

3.1 Groundwater Monitoring Methodology

All well caps were removed to allow groundwater levels to stabilize prior to gauging. Static fluid levels were measured with an oil-water interface probe to the nearest hundredth of a foot. After recording fluid levels, wells not containing LNAPL were purged of three casing volumes of groundwater. Samples of groundwater were collected using clean, disposable polyvinyl chloride (PVC) bailers. Laboratory-supplied sample containers were filled directly from the bailers. Duplicate samples were collected from one to two wells during most of the quarterly sampling events. Samples were placed on ice immediately after collection and chilled to a temperature of approximately 4°C (39°F). Proper chain-of-custody documentation accompanied samples to Pace Analytical in Mt. Juliet, Tennessee. Samples were analyzed for BTEX according to method EPA 8021B. Selected samples collected in October were analyzed for PAH compounds according to method EPA 8270C-SIM. Volumes of groundwater purged from wells monitored during the first, second, third, and fourth quarters of 2020 were 158 gallons, 156.5 gallons, 152.3 gallons, and 155.5 gallons, respectively. The total volume of groundwater purged from wells during quarterly monitoring events in 2020 was 622.30 gallons.

3.2 Groundwater Elevations and Gradient

All fluid level measurements were recorded from professionally surveyed tops of casings. Groundwater elevations were calculated using a specific gravity of 0.81 for LNAPL where it was present. Fluid levels and calculated groundwater elevations for 2019 and 2020 are presented in Table 1. Groundwater gradient maps for the quarterly monitoring events in February, May, September, and October are provided as Figures 3, 4, 5, and 6, respectively.

The bottoms of LNAPL columns were gauged at the bottoms of casings in recovery wells RW-1, RW-2, RW-5, and RW-6 during some quarterly monitoring events; therefore, the groundwater elevations in those wells could not be accurately calculated in those instances.

The groundwater flow direction is toward the southeast and is consistent with previous quarterly monitoring results. The average gradient determined from the four groundwater monitoring events was approximately 0.0027 feet/foot (ft./ft.). Groundwater elevations declined an average of 1.35 feet across the Site between October 22, 2019 and October 28, 2020.



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

LNAPL was observed in recovery wells RW-1, RW-2, RW-3, RW-4R, RW-5, RW-6, RW-7R, RW-8, RW-9, RW-10, RW-13, and RW-14 during 2020. LNAPL thicknesses in 2020 ranged from 0.08 feet in recovery well RW-14 on February 26, 2020 (shortly after installation) to 7.10 feet in recovery well RW-14 on September 15, 2020.

Charts of thicknesses of LNAPL versus time in recovery wells RW-1, RW-2, RW-3, RW-4R, RW-5, RW-6, RW-7R, RW-8, RW-9, RW-10, RW-13, and RW-14 are in Appendix A. Recovery wells RW-1, RW-2, RW-3, RW-5, and RW-6 show a decline in LNAPL thickness over time while recovery wells RW-7 and RW-8 show an increase during 2020. Recovery wells RW-4R, RW-10, RW-13, and RW-14 increased throughout 2020 but showed a decrease during the fourth quarter 2020 due to having total fluids recovery pumps installed.

3.4 Dissolved-phase Hydrocarbons in Groundwater

BTEX Analytical results, for monitoring conducted during 2019 and 2020, are included in Table 2. Results of analyses of BTEX during the first, second, third, and fourth quarterly monitoring events are shown on Figures 7 through 10, respectively. Concentrations of PAH compounds that exceed NMWQCC Human Health or Toxic Pollutant Standards are also included on Figure 10.

During the February and March 2020, first quarter monitoring events, analytical results indicated recovery wells RW-11 and RW-12 exhibited benzene concentrations above the Human Health Standard, ranging from 0.207 mg/L in RW-11 to 0.859 mg/L in RW-12. Benzene concentrations were detected in monitor wells MW-3R and MW-12 at concentrations below the Human Health Standard of 0.01 mg/L. Recovery wells RW-11 and RW-12 exhibited concentration of toluene, ethylbenzene and total xylenes below the Human Health Standard of 0.75 mg/L, 0.75 mg/L, and 0.62 mg/L, respectively.

The second quarter sampling event was conducted on May 11 and 18, 2020. Analytical results for samples collected in second quarter indicated benzene concentrations above the Human Health Standard for recovery wells RW-11 and RW-12, ranging from 0.0609 mg/L in RW-11 to 0.987 mg/L in RW-12. Recovery wells RW-11 and RW-12 exhibited concentrations of toluene, ethylbenzene and total xylenes below the Human Health Standard of 0.75 mg/L, 0.75 mg/L, and 0.62 mg/L, respectively.

During the September 15 and 16, 2020, quarterly monitoring event, analytical results indicated monitor well MW-12 and recovery wells RW-11 and RW-12 exhibited benzene concentrations above the Human Health Standard, ranging from 0.0135 mg/L in RW-11 (DUP-1) to 0.561 mg/L in RW-12. Benzene concentrations were detected in monitor well MW-3R at concentrations below the Human Health Standard of 0.01 mg/L. Monitor well MW-3R and recovery wells RW-11 and RW-12 exhibited concentration of toluene, ethylbenzene and total xylenes below the Human Health Standard of 0.75 mg/L, and 0.62 mg/L, respectively.

The fourth quarterly sampling event was conducted on October 28 and 30, 2020. Analytical results indicated benzene concentrations above the NMWQCC Human Health Standard (0.01 mg/L) in recovery well RW-12 with a concentration of 0.562 mg/L. Benzene concentrations below the Human Health Standard of 0.01 mg/L were detected in Monitor wells MW-3R and MW-12 and recovery well



RW-11. Toluene concentrations below the Human Health Standard of 0.75 mg/L were detected in monitor well MW-3R and recovery well RW-11. Ethylbenzene concentrations were detected in recovery wells RW-11 and RW-12 at concentrations below the Human Health Standard of 0.75 mg/L. Total xylenes were detected in monitor well MW-4R and recovery wells RW-11 and RW-12; however, these concentrations were all below the Human Health Standard of 0.62 mg/L.

Maps showing analytical results during the first, second, third, and fourth quarterly monitoring events are in Figures 7, 8, 9, and 10, respectively. Charts of concentrations of dissolved benzene versus time for MW-3/3R, MW-12, RW-11 and RW-12 are provided in Appendix B. These charts indicate that benzene concentrations in monitor well MW-3/3R have declined to concentrations below the Human Health Standard of 0.1 mg/L and have remained stable. Benzene concentrations in recovery wells RW-11 and RW-12 are declining over time, while concentrations of benzene in monitor well MW-12 exhibited a large spike and decline. Certified laboratory reports are in Appendix C.

During the October groundwater monitoring event, samples for analyses of polycyclic aromatic hydrocarbons (PAHs) were collected from monitor wells MW-3R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, and MW-13 and recovery wells RW-11, and RW-12. These wells were sampled in accordance with the NMOCD's email correspondence to Plains, dated December 12, 2012, regarding PAHs 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)."

Results indicated that concentrations of dibenzofuran in RW-12 exceeded the standard of 0.001 mg/L required by correspondence from NMOCD in 2012 referenced above. Monitor wells MW-3R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, and MW-13 and recovery wells RW-11, and RW-12 will need PAH sampling again in 2021. A cumulative summary of analytical results of PAH is in Table 3. Certified laboratory reports including results for PAH compounds are in Appendix C.

4. Corrective Action

Remediation at the Site consists of recovery of LNAPL, impacted groundwater, hand bailing, and soil vapor utilizing a trailer-mounted, automated system which operates total-fluid pumps in a number of wells. Recovered fluids are transferred to an above-ground storage tank (AST). The AST is periodically emptied, and the recovered fluids are disposed of at a licensed facility per directives of Plains. Fluid levels in the AST are gauged periodically to calculate total volumes of fluids recovered at the site. Total volume of LNAPL recovered was approximately 374.93 gallons during 2020 by operation of the remediation system and hand bailing. Approximately 6,571.74 gallons of groundwater were recovered by the remediation system and hand bailing. The total volume of liquids recovered by the remediation system at the Site during 2020 was approximately 6,946.67 gallons.

Wells RW-1, RW-2, RW-3, RW-5, RW-7R, and RW-9 were targeted for periodic abatement of LNAPL by hand from January to March 2020. In The total volume of LNAPL recovered in this



manner during the year was 12 gallons. The LNAPL recovery events by hand bailing were cancelled in April through the rest of the year due to COVID 19.

BTEX abatement by hand bailing was conducted on various wells periodically during the first quarter of 2020 to reduce concentrations of dissolved-phase contaminants. The total volume of groundwater recovered during BTEX abatement during the first quarter of 2020 was 16.3 gallons. The BTEX abatement events by hand bailing were cancelled in April through the rest of the year due to COVID 19.

A trailer mounted automated groundwater remediation system was operated at the Site for a total of 211 days during 2020. Four total-fluids pumps are deployed at the Site and are moved to different wells periodically. Pumps remain in the locations shown on Figures 3 through10 until the following quarterly monitoring event. Pumps were deployed at various times in recovery wells RW-3, RW-4R, RW-5, RW-6, RW-8, RW-10, RW-13 and RW-14. GHD personnel conducted operation and maintenance (O&M) activities twice weekly to maintain efficient soil vapor and fluid recovery. O&M activities included inspections of well-heads and flow lines, servicing total fluid pumps, adjustments of depths of total-fluids pumps, and gauging of recovered fluids in the storage tank, and general housekeeping tasks. Approximately 362.93 gallons of LNAPL and 5,133.34 gallons of groundwater were recovered by the automated trailer mounted remediation system during 2020. Samples of emissions from the remediation system were collected on March 18, June 23, October 6, and November 23, 2020 and used to calculate emission rates and total emissions from the remediation system. Using the designed effluent flow rate of 40 cubic feet per minute, the maximum rate of emissions during 2020 was 6.616 lb. TPH/hour. Total mass of emissions during 2020 was 8.2745 tons TPH.

An Enhanced Fluid Recovery (EFR) event was conducted on RW-7R (1/29/2020) in 2020. A vacuum truck and drop hose capable of sealing the wellhead and reaching beyond the static water table were used to remove LNAPL and impacted groundwater to reduce concentrations of dissolved BTEX. This event resulted in the recovery of 462 gallons of groundwater. The quarterly EFR events were cancelled in April through the rest of the year due to COVID 19. Fluids recovered by EFR are transported and disposed of at a licensed disposal facility as directed by Plains.

An approximate total of 374.93 gallons of LNAPL were recovered from the Site during 2020 by the remediation system and hand-bailing events. Approximately 7,033.74 gallons of groundwater were recovered from the Site during the year by the remediation system, hand-bailing, and EFR events. Approximately 28,888.93 gallons of LNAPL have been recovered from the start of the LNAPL abatement program in December 2005.

All fluids recovered from purging, remediation system operation, and BTEX and LNAPL abatement via hand bailing were transferred to the AST and later disposed of at a licensed disposal facility, as directed by Plains.

5. Summary of Findings

Based on groundwater assessment, monitoring and remedial activities performed by GHD at the Site in 2020, the following summary of findings is presented:



- On February 19, 2020, monitor wells MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11 and one recovery well RW-4 were plugged and abandoned. From February 20 through 25, monitor wells MW-3R, MW-6R, MW-7R, MW-8R, MW-9R, MW-10R, and MW-13 and recovery wells RW-4R, RW-13, and RW-14 were installed at the Site.
- Bottoms of the LNAPL columns were gauged at the bottoms of the casings in recovery wells RW-1, RW-2, RW-5, and RW-6; therefore, thicknesses of LNAPL in those wells could not be accurately measured.
- Flow of groundwater is toward the southeast and is consistent with previous quarterly monitoring events. The average gradient determined from the four groundwater monitoring events was approximately 0.0027 ft./f.
- Groundwater elevations declined an average of 1.35 feet across the site between October 22, 2019 and October 28, 2020.
- Dissolved benzene was detected at concentrations exceeding the NMWQCC Human Health Standard of 0.01 mg/L in monitor well MW-12 and recovery wells RW-11 and RW-12 during 2020. All other detections of BTEX constituents were below their respective NMWQCC Human Health Standards.
- Concentrations of dibenzofuran in RW-12 exceeded the standard of 0.001 mg/L required by correspondence from NMOCD in 2012. All other detections of PAH compounds in groundwater were below applicable regulatory standards.
- Wells RW-1, RW-2, RW-3, RW-5, RW-7R, and RW-9 were targeted for periodic abatement of LNAPL by hand from January to March 2020. In The total volume of LNAPL recovered in this manner during the year was 12 gallons. The LNAPL recovery events by hand bailing were cancelled in April through the rest of the year due to COVID 19.
- BTEX abatement by hand bailing was conducted on various wells periodically during the first quarter of 2020 to reduce concentrations of dissolved-phase contaminants. The total volume of groundwater recovered during BTEX abatement during the first quarter of 2020 was 16.3 gallons. The BTEX abatement events by hand bailing were cancelled in April through the rest of the year due to COVID 19.
- The trailer mounted automated remediation system operated for 211 days during 2020 and recovered 362.93 gallons of LNAPL and 5,133.34 gallons of groundwater. The maximum emission rate during 2020 was 6.616 lb. TPH/hour. Total gaseous hydrocarbon emissions for 2020 were 8.2745 tons.
- An Enhanced Fluid Recovery (EFR) event was conducted on RW-7R (1/29/2020) in 2020. This event resuted in the recovery of 462 gallons of groundwater. The quarterly EFR events were cancelled in April through the rest of the year due to COVID 19.
- Approximately 374.93 gallons of LNAPL were recovered by the trailer-mounted remediation system and by hand-bailing during 2020. Total volume of LNAPL recovered by all methods since the start of the LNAPL abatement program in December 2005 is 28,888.93 gallons.



6. Recommendations

Based upon the data and conclusions presented in this report, the following are recommended for 2020:

- Continue quarterly groundwater monitoring events with annual reporting to the NMOCD.
- Continue annual sampling for PAHs during the fourth quarterly event according to directives of NMOCD. This will include RW-11, RW-12 and all wells installed during 2020 which are not impacted by LNAPL.
- Continue remediation of the soil profile and groundwater by operating the trailer mounted soil vapor extraction system. Gaseous hydrocarbon emissions will be sampled quarterly to calculate emission rates and total emissions.

All of Which is Respectfully Submitted,

GHD

Reberra Haskell

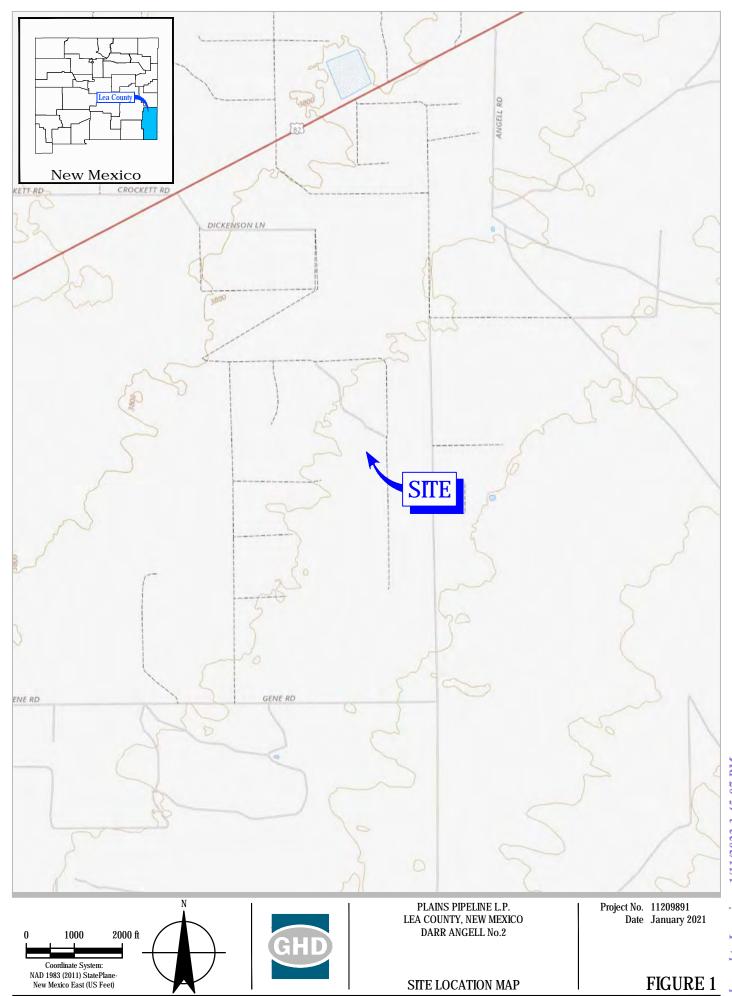
Rebecca Haskell Senior Project Manager

Thomas Clayon

Tom Larson Midland Operations Manager

Figures

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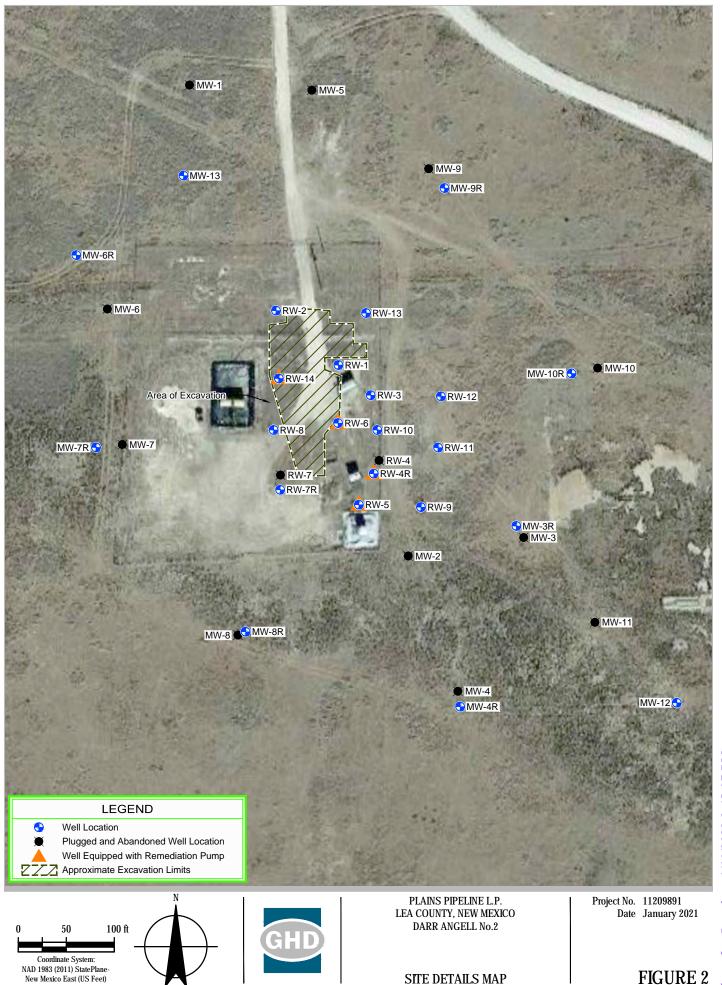
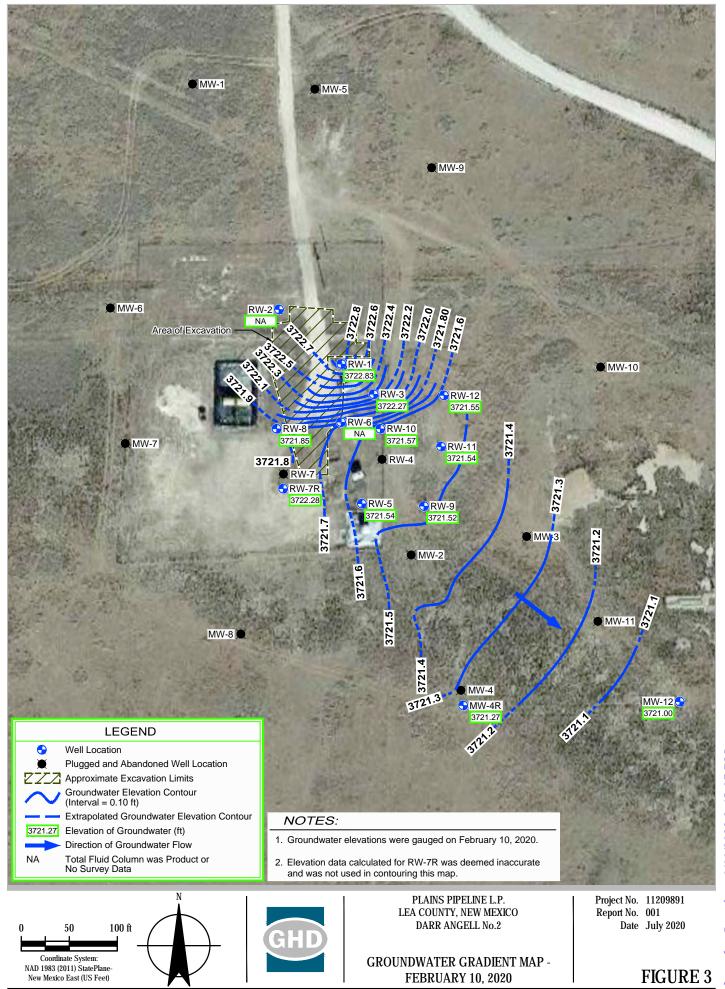
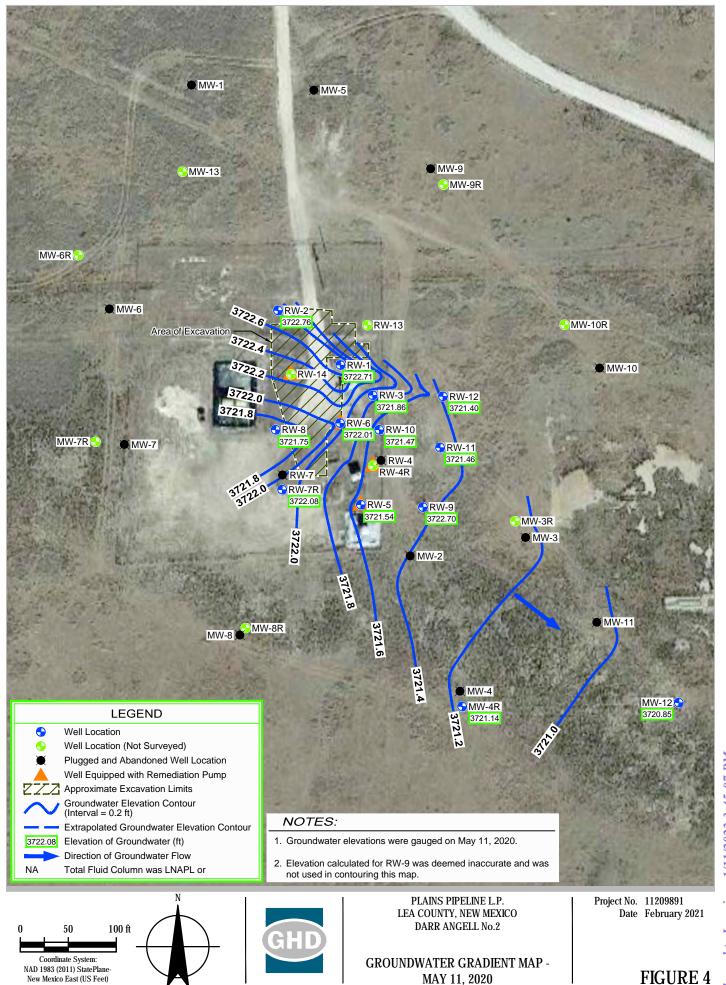


FIGURE 2

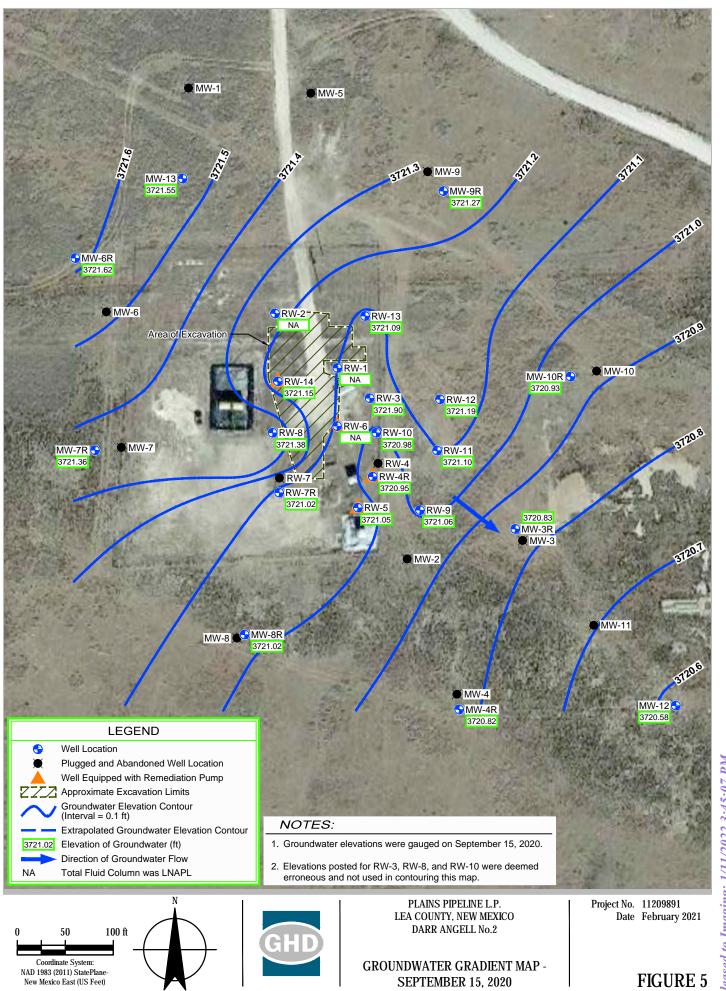


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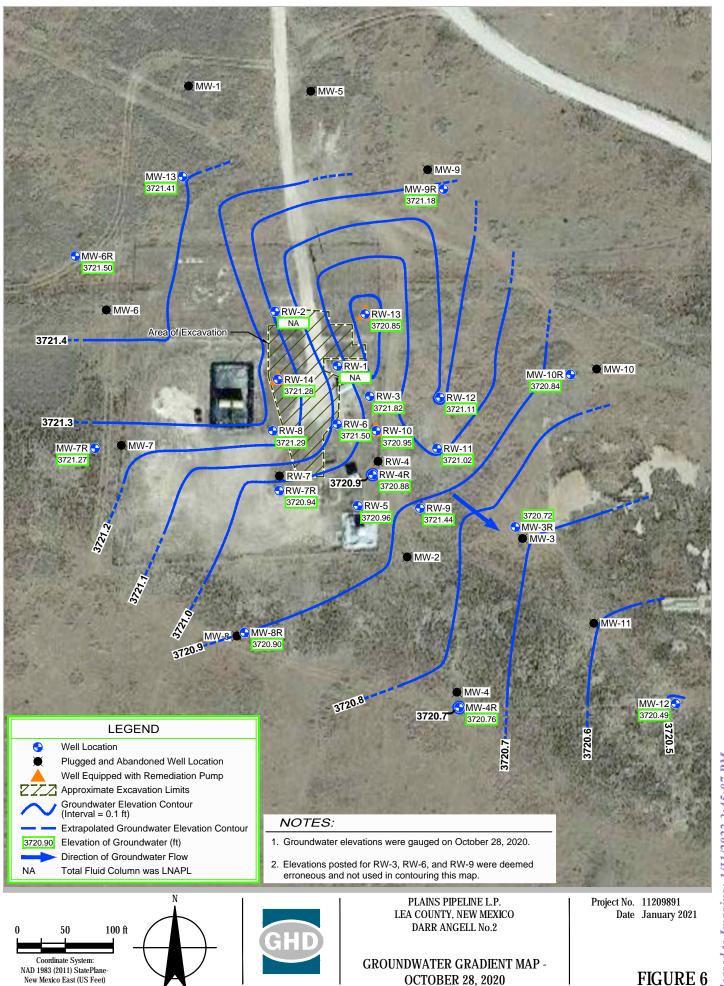


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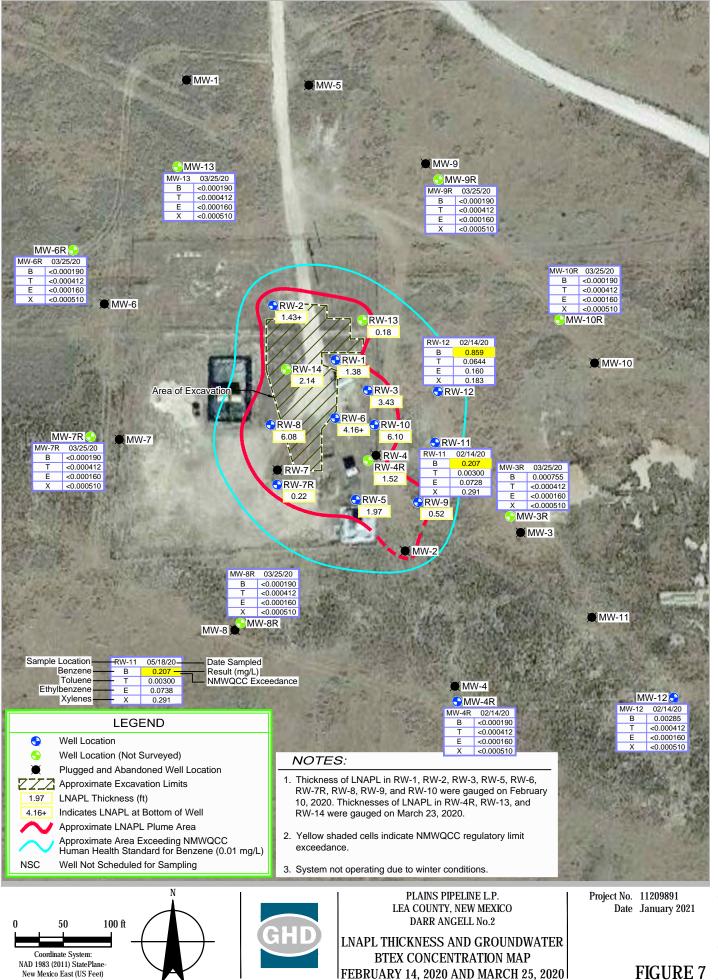


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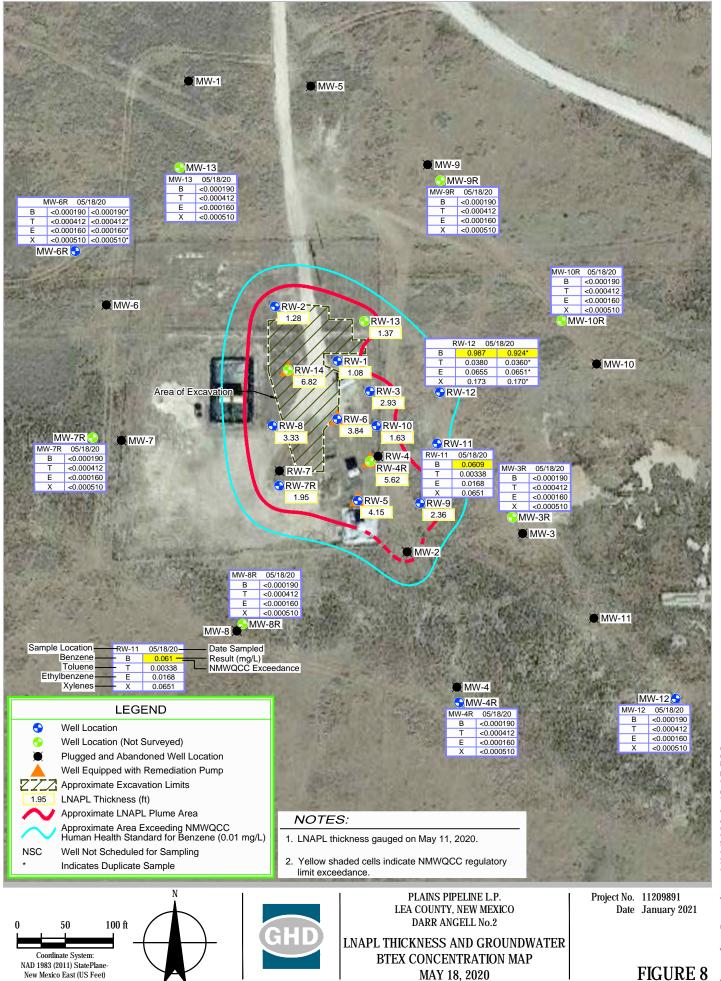
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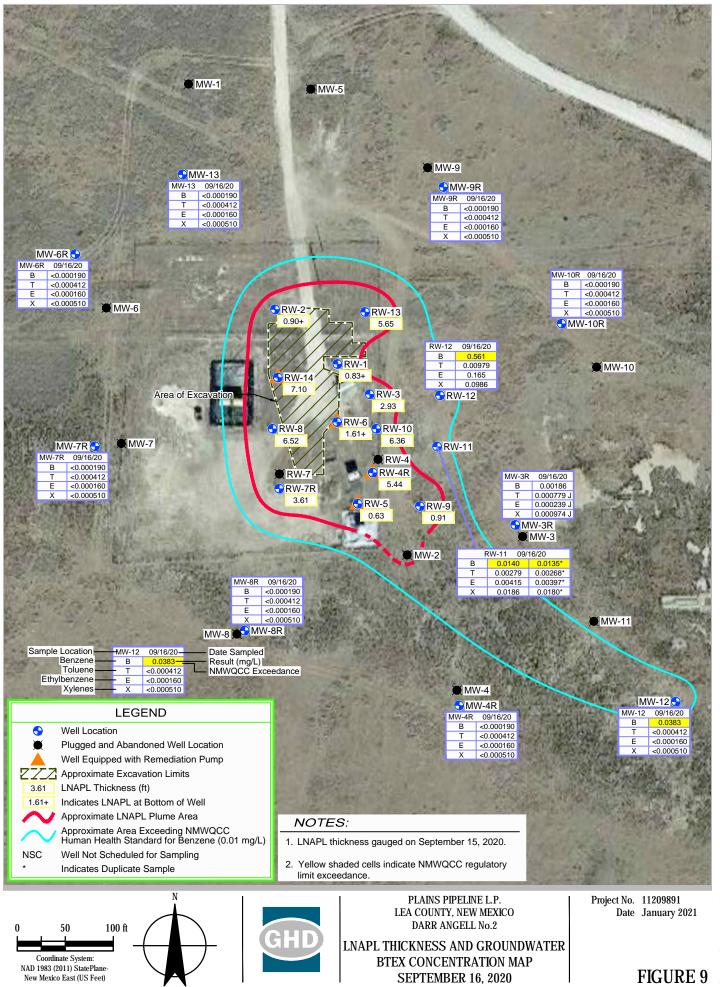
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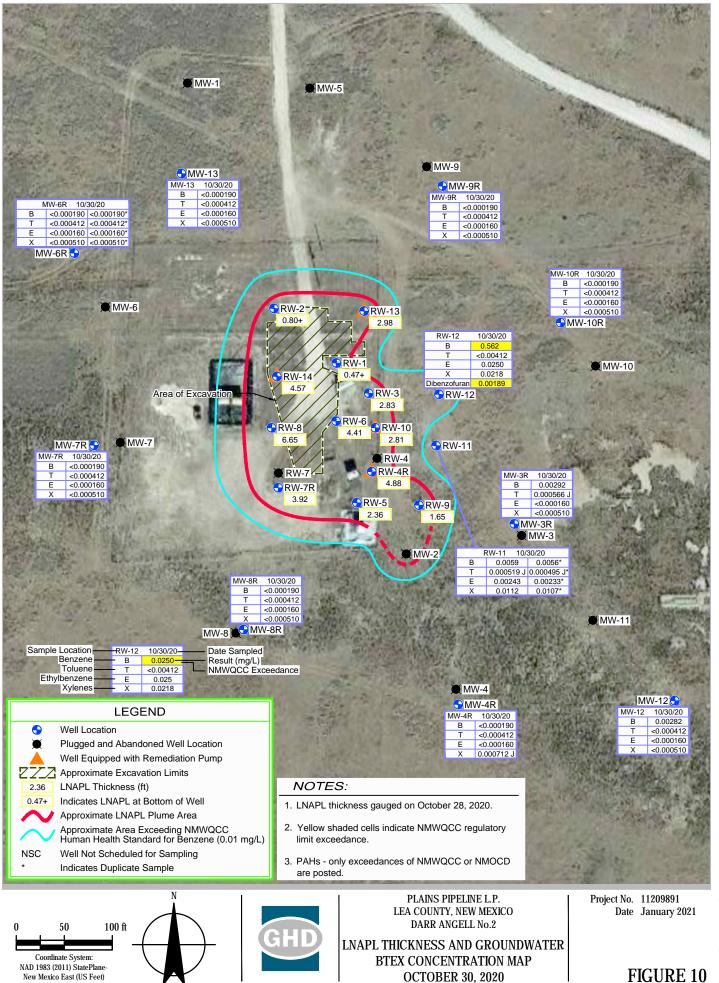
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	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
MW-01	3790.48	2/25/19	67.48	-	0.00	3723.00	68.10				
MW-01	3790.48	5/20/19	67.67	-	0.00	3722.81	68.10				
MW-01	3790.48	7/23/19	-	-		Dry	68.01				
MW-01	3790.48	10/22/19	-	-		Dry					
MW-01	P&A	2/19/20									
MW-02	3790.80	2/25/19	-	-		Dry					
MW-02	3790.80	5/20/19	-	-		Dry					
MW-02	3790.80	7/23/19	-	-		Dry					
MW-02	3790.80	10/22/19	-	-		Dry					
MW-02	P&A	2/19/20	-	-							
MW-03	3790.29	2/25/19	67.93	-	0.00	3722.36					
MW-03	3790.29	5/18/19								3.0	
MW-03	3790.29	5/20/19	-	-		Dry					
MW-03	3790.29	7/23/19	-	-		Dry	68.10				
MW-03	3790.29	10/22/19	-	-		Dry					
MW-03	P&A	2/19/20									
MW-3R		2/20/20								20	
MW-3R	3789.51	2/26/20	68.19	-	0.00	3721.32	90.26	63-88 (2 in.)			
MW-3R	3789.51	3/23/20	68.34	-	0.00	3721.17	90.32	2 in.		11	
MW-3R	3789.51	5/1/20	68.41	-	0.00	3721.10					
MW-3R	3789.51	5/11/20	68.42	-	0.00	3721.09				10.5	
MW-3R	3789.51	6/18/20	68.48	-	0.00	3721.03					
MW-3R	3789.51	7/27/20	68.57	-	0.00	3720.94					
MW-3R	3789.51	8/27/20	68.66	-	0.00	3720.85					
MW-3R	3789.51	9/15/20	68.68	-	0.00	3720.83	90.32			10.6	
MW-3R	3789.51	10/28/20	68.79	-	0.00	3720.72				11.0	
MW-3R	3789.51	12/7/20	68.88	-	0.00	3720.63					
MW-04R	3789.17	2/25/19	67.19	-	0.00	3721.98					
MW-04R	3789.17	2/27/19	-	-	-	-			0.0	8.5	
MW-04R	3789.17	5/20/19	67.37	-	0.00	3721.80					
MW-04R	3789.17	5/21/19	-	-	-	-			0.0	9.5	
MW-04R	3789.17	7/23/19	67.60	-	0.00	3721.57			0.0	7.0	
MW-04R	3789.17	10/22/19	67.64	-	0.00	3721.53				8.0	
MW-04R	3789.17	2/10/20	67.90	-	0.00	3721.27	85.97	59.5-89.5 (2 in.)		9.0	
MW-04R	3789.17	5/1/20	68.09	-	0.00	3721.08					
MW-04R	3789.17	5/11/20	68.03	-	0.00	3721.14				9.0	
MW-04R	3789.17	6/18/20	68.11	-	0.00	3721.06					
MW-04R	3789.17	7/27/20	68.20	-	0.00	3720.97					1
MW-04R	3789.17	8/27/20	68.28	-	0.00	3720.89					1
MW-04R	3789.17	9/15/20	68.35	-	0.00	3720.82	85.97			8.6	1
MW-04R	3789.17	10/28/20	68.41	-	0.00	3720.76				8.5	1

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
MW-04R	3789.17	12/7/20	68.52	-	0.00	3720.65				8.5	
MW-06	3790.75	2/25/19	67.99	-	0.00	3722.76					
MW-06	3790.75	5/20/19	-	-	-	Dry					
MW-06	3790.75	7/3/19	-	-	-	-			2.89		336
MW-06	3790.75	7/23/19	-	-	-	Dry	68.01				
MW-06	3790.75	10/22/19	-	-	-	Dry					
MW-06	P&A	2/19/20	-	-	-	-					
MW-6R		2/24/20								15	
MW-6R	3789.79	2/24/20	67.65	-	0.00	3722.14	90.05	58-88 (2 in.)		15	
MW-6R	3789.79	3/23/20	67.80	-	0.00	3721.99	90.05	2 in.		11	
MW-6R	3789.79	5/1/20	67.87	-	0.00	3721.99	90.05	Z III.		11	
MW-6R	3789.79	5/1/20	67.86	-	0.00	3721.92				11	
MW-6R	3789.79	6/18/20	67.94	-	0.00	3721.85				11	
MW-6R	3789.79	7/27/20	68.04	-	0.00	3721.85					
MW-6R	3789.79	8/27/20	68.12	-	0.00	3721.67					
MW-6R	3789.79	9/15/20	68.17	-	0.00	3721.62	90.05			10.6	
MW-6R	3789.79	10/28/20	68.29	-	0.00	3721.50	90.05			10.0	
MW-6R	3789.79	12/7/20	68.35	-	0.00	3721.44				10	
	5765.75	12/1/20	00.00	-	0.00	5721.44					
MW-07	3791.09	2/25/19	68.49	-	0.00	3722.60					
MW-07	3791.09	5/20/19	68.70	-	0.00	3722.39					
MW-07	3791.09	7/23/19	68.85	-	0.00	3722.24					
MW-07	3791.09	10/22/19	68.99	-	0.00	3722.10					
MW-07	P&A	2/19/20									
MW-7R		2/21/20								15	
MW-7R	3790.51	2/26/20	68.61	-	0.00	3721.90	90.00	58-88 (2 in.)			
MW-7R	3790.51	3/23/20	68.79	-	0.00	3721.72	90.00			11	
MW-7R	3790.51	5/1/20	68.84	-	0.00	3721.67					
MW-7R	3790.51	5/11/20	68.81	-	0.00	3721.70				10.5	
MW-7R	3790.51	6/18/20	68.91	-	0.00	3721.60					
MW-7R	3790.51	7/27/20	69.00	-	0.00	3721.51					
MW-7R	3790.51	8/27/20	69.10	-	0.00	3721.41					
MW-7R	3790.51	9/15/20	69.15	-	0.00	3721.36	90.00			10	ļ
MW-7R	3790.51	10/28/20	69.24	-	0.00	3721.27				11	ļ
MW-7R	3790.51	12/7/20	69.32	-	0.00	3721.19					
MW-08	3790.04	2/25/19	67.70		0.00	3722.34					
MW-08		5/20/19	67.70	-	0.00	3722.34 3722.14					
MW-08	3790.04 3790.04	5/20/19 7/23/19	67.90	-	0.00	3722.14 3722.04					
MW-08	3790.04 3790.04	10/22/19	68.00	-	0.00	3722.04				0.25	
MW-08	3790.04 P&A	2/19/20	00.10	-	0.00	3121.00				0.20	
10100-000	FOR	2/13/20									

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
MW-8R		2/19/20								15	
MW-8R	3788.75	2/26/20	67.22	-	0.00	3721.53	90.64	63-88 (2 in.)			
MW-8R	3788.75	3/23/20	67.39	-	0.00	3721.36	90.54	2 in.		11	
MW-8R	3788.75	5/1/20	67.45	-	0.00	3721.30					
MW-8R	3788.75	5/11/20	67.41	-	0.00	3721.34				11.5	
MW-8R	3788.75	6/18/20	67.51	-	0.00	3721.24					
MW-8R	3788.75	7/27/20	67.61	-	0.00	3721.14					
MW-8R	3788.75	8/27/20	67.68	-	0.00	3721.07					
MW-8R	3788.75	9/15/20	67.73		0.00	3721.02	90.54			11	
MW-8R	3788.75	10/28/20	67.85	-	0.00	3720.90				11	
MW-8R	3788.75	12/7/20	67.92	-	0.00	3720.83					
MW-09	3789.79	2/25/19	67.16	-	0.00	3722.63					ļ
MW-09	3789.79	5/20/19	67.32	-	0.00	3722.47					
MW-09	3789.79	7/23/19	67.45	-	0.00	3722.34					
MW-09	3789.79	10/22/19	67.61	-	0.00	3722.18				0	
MW-09	P&A	2/19/20									
MW-9R		2/20/20								15	
MW-9R	3789.02	2/26/20	67.23	-	0.00	3721.79	89.85	58-88 (2 in.)			
MW-9R	3789.02	3/23/20	67.39	-	0.00	3721.63	90.50	2 in.		11	
MW-9R	3789.02	5/1/20	67.46	-	0.00	3721.56					
MW-9R	3789.02	5/11/20	67.48	-	0.00	3721.54				11.5	
MW-9R	3789.02	6/18/20	67.54	-	0.00	3721.48					
MW-9R	3789.02	7/27/20	67.61	-	0.00	3721.41					
MW-9R	3789.02	8/27/20	67.71	-	0.00	3721.31					
MW-9R	3789.02	9/15/20	67.75	-	0.00	3721.27	90.50			11	
MW-9R	3789.02	10/28/20	67.84	-	0.00	3721.18				11	
MW-9R	3789.02	12/7/20	67.94	-	0.00	3721.08					
MW-10	3789.88	2/25/19	-	-		Dry					
MW-10	3789.88	5/20/19	-	-		Dry					
MW-10	3789.88	7/23/19	-	-		Dry					
MW-10	3789.88	10/22/19	-	-		Dry					
MW-10	P&A	2/19/20									
MW-10R	3788.90	2/26/20	67.47	-	0.00	3721.43	90.20	58-88 (2 in.)			<u> </u>
MW-10R	3788.90	3/23/20	67.62	-	0.00	3721.28	90.25	2 in.		11	
MW-10R	3788.90	5/1/20	67.70	-	0.00	3721.20					
MW-10R	3788.90	5/11/20	67.70	-	0.00	3721.20				11	
MW-10R	3788.90	6/18/20	67.77	-	0.00	3721.13					
MW-10R	3788.90	7/27/20	67.84	-	0.00	3721.06					
MW-10R	3788.90	8/27/20	67.94	-	0.00	3720.96					
MW-10R	3788.90	9/15/20	67.97	-	0.00	3720.93	90.25			10.9	
MW-10R	3788.90	10/28/20	68.06	-	0.00	3720.84				11.0	

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
MW-10R	3788.90	12/7/20	68.17	-	0.00	3720.73				(3 /	13. /
MW-11	3790.65	2/25/19	68.78	-	0.00	3721.87					
MW-11	3790.65	2/27/19							0.0	0.0	
MW-11	3790.65	5/20/19	68.97	-	0.00	3721.68					
MW-11	3790.65	7/23/19	-	-		Dry	69.11				
MW-11	3790.65	10/22/19	-	-		Dry					
MW-11	P&A	2/19/20									
MW-12	3789.64	2/25/19	67.94	-	0.00	3721.70					
MW-12	3789.64	2/27/19	-	-	-	-			0.0	9.5	
MW-12	3789.64	5/20/19	68.12	-	0.00	3721.52					
MW-12	3789.64	5/21/19	-	-	-	-			0.0	9.0	
MW-12	3789.64	7/23/19	68.30	-	0.00	3721.34					
MW-12	3789.64	7/23/19	-	-	-	-			0.0	7.0	
MW-12	3789.64	10/22/19	68.40	-	0.00	3721.24				7.0	
MW-12	3789.64	2/10/20	68.64	-	0.00	3721.00	85.76	45-65 (2 in.)		9.0	
MW-12	3789.64	5/1/20	68.80	-	0.00	3720.84					
MW-12	3789.64	5/11/20	68.79	-	0.00	3720.85				8.5	
MW-12	3789.64	6/18/20	68.86	-	0.00	3720.78					
MW-12	3789.64	7/27/20	68.94	-	0.00	3720.70					
MW-12	3789.64	8/27/20	69.04	-	0.00	3720.60					
MW-12	3789.64	9/15/20	69.06	-	0.00	3720.58	85.76			8.0	
MW-12	3789.64	10/28/20	69.15	-	0.00	3720.49				8.0	
MW-12	3789.64	12/7/20	69.25	-	0.00	3720.39					
		- / /									
MW-13		2/20/20						70.00 (0 ! .)		15.0	
MW-13	3789.70	2/26/20	67.65	-		3722.05	90.00	58-88 (2 in.)			
MW-13	3789.70	3/23/20	67.80	-	0.00	3721.90	90.05	2 in.		11.0	
MW-13	3789.70	5/1/20	67.88	-	0.00	3721.82					
MW-13	3789.70	5/11/20	67.89	-	0.00	3721.81				11.0	
MW-13	3789.70	6/18/20	67.94	-	0.00	3721.76					
MW-13	3789.70	7/27/20	68.02	-	0.00	3721.68					
MW-13	3789.70	8/27/20	68.12	-	0.00	3721.58	00.05			40.0	
MW-13	3789.70	9/15/20	68.15	-	0.00	3721.55	90.05			10.6	
MW-13	3789.70	10/28/20	68.29	-	0.00	3721.41				11.0	
MW-13	3789.70	12/7/20	68.45		0.00	3721.25					
RW-01	3789.85	1/29/19	-	-	-	-			1.0	0.0	
RW-01	3789.85	2/25/19	68.04	66.09	1.95	3723.39			1.0	0.0	
RW-01	3789.85	4/24/19	68.11	66.17	1.95	3723.31			1.0	1.0	
RW-01	3789.85	5/20/19	68.04	66.24	1.80	3723.27			1.0	1.0	
RW-01	3789.85	6/11/19	-		-	-			2.0	0.0	
RW-01	3789.85	6/18/19		-	-	-			1.0	0.0	
RW-01	3789.85	6/25/19			-	-			1.3	0.0	
11.00-01	5763.05	0/20/19	-	-	-	-			1.5	0.0	

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-01	3789.85	7/3/19	-	-	-	-			3.0	0.0	
RW-01	3789.85	7/8/19	-	-	-	-			1.2	0.0	
RW-01	3789.85	7/23/19	-	66.42	1.66+	LNAPL at TD	68.01				
RW-01	3789.85	8/7/19	-	-	-	-			1.0	0.0	
RW-01	3789.85	8/13/19	-	-	-	-			1.0	0.0	
RW-01	3789.85	8/20/19	-	-	-	-			1.0	0.0	
RW-01	3789.85	8/28/19	-	-	-	-			0.5	0.0	
RW-01	3789.85	9/3/19	-	-	-	-			1.5	0.0	
RW-01	3789.85	9/10/19	-	-	-	-			1.0	0.0	
RW-01	3789.85	10/2/19	-	-	-	-			1.5		
RW-01	3789.85	10/22/19	-	66.55	1.37+	LNAPL at TD					
RW-01	3789.85	11/20/19	-	-	-	-			0.8		
RW-01	3789.85	12/10/19	-	-	-	-			1.0		
RW-01	3789.85	12/24/19	-	-	-	-			0.5	0.5	
RW-01	3789.85	1/8/20	-	-	-	-			1.0	0.0	
RW-01	3789.85	1/14/20	-	-	-	-			1.5	0.2	
RW-01	3789.85	2/10/20	68.14	66.76	1.38	3722.83	68.18	40-65 (4 in.)			
RW-01	3789.85	2/25/20	-	-	-	-			0.1	0.2	
RW-01	3789.85	5/1/20	-	66.92	1.13+	LNAPL at TD	68.05				
RW-01	3789.85	5/11/20	68.01	66.93	1.08	3722.71					
RW-01	3789.85	6/18/20	68.04	67.02	1.02	3722.64					
RW-01	3789.85	7/27/20	-	67.06	0.79+	LNAPL at TD	67.85				
RW-01	3789.85	8/27/20	-	67.13	0.73+	LNAPL at TD	67.86				
RW-01	3789.85	9/15/20	-	67.21	0.83+	LNAPL at TD	68.04				
RW-01	3789.85	10/28/20	-	67.29	0.47+	LNAPL at TD	67.76				
RW-01	3789.85	12/7/20	-	67.36	0.53+	LNAPL at TD	67.89				
RW-02	3790.24	1/29/19	-	-	-	-			1.4	0.0	
RW-02	3790.24	2/25/19	68.51	66.46	2.05	3723.39	68.30				
RW-02	3790.24	4/24/19	68.54	66.48	2.06	3723.37					
RW-02	3790.24	5/20/19	-	66.53	1.77+	LNAPL at TD	68.30				
RW-02	3790.24	6/11/19	-	-	-	-			2.0	0.0	
RW-02	3790.24	6/18/19	-	-	-	-			1.0	0.0	
RW-02	3790.24	6/25/19	-	-	-	-			1.2	0.0	
RW-02	3790.24	7/3/19	-	-	-	-			2.0	0.0	
RW-02	3790.24	7/8/19	-	-	-	-	00.10		0.7	0.0	
RW-02	3790.24	7/23/19	-	66.73	1.57+	LNAPL at TD	68.40				
RW-02	3790.24	8/7/19	-	-	-	-			0.5	0.0	
RW-02	3790.24	8/20/19	-	-	-	-			1.0	0.0	
RW-02	3790.24	8/13/19	-	-	-	-			1.0	0.0	
RW-02	3790.24	8/28/19	-	-	-	-			1.1	0.0	
RW-02	3790.24	9/3/19	-	-	-	-			1.0	0.0	
RW-02	3790.24	9/10/19	-	-	-	-			0.5	0.0	
RW-02	3790.24	10/2/19	-	-	-				0.9	0.1	
RW-02	3790.24	10/22/19	-	66.89	1.65+	LNAPL at TD					

	Elevation		Well Screen									
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Volume Groundwater	
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR	
	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)	
RW-02	3790.24	11/20/19	-	-	-	-			1.0			
	3790.24	12/10/19	-	-	-	-			1.5			
	3790.24	12/23/19	-	-	-	-			0.5	0.5		
	3790.24	1/8/20	-	-	-	-			1.0	0.0		
	3790.24	1/14/20	-	-	-	-			0.0	1.0		
	3790.24	2/10/20	-	67.09	1.43+	LNAPL at TD	68.52					
	3790.24	5/1/20	-	67.21	1.19+	LNAPL at TD	68.40					
	3790.24	5/11/20	68.52	67.24	1.28	3722.76						
	3790.24	6/18/20	68.40	67.33	1.07	3722.71						
	3790.24	7/27/20	-	67.37	0.83+	LNAPL at TD	68.20					
	3790.24	8/27/20	-	67.42	0.82+	LNAPL at TD	68.24					
	3790.24	9/15/20	-	67.52	0.90+	LNAPL at TD	68.42					
	3790.24	10/28/20	-	67.61	0.80+	LNAPL at TD	68.41					
RW-02	3790.24	12/7/20	68.43	67.69	0.74	3722.41						
RW-03	3790.24	1/29/19	-	-	-	-			6.0	0.0		
RW-03	3790.24	2/6/19	-	-	-	-			0.5		315.0	
	3790.24	2/25/19	70.76	66.63	4.13	3722.83						
RW-03	3790.24	5/20/19	70.49	67.29	3.20	3722.34						
	3790.24	7/16/19	71.34	67.77	3.57	3721.79						
RW-03	3790.24	7/23/19	71.33	67.52	3.81	3722.00						
	3790.24	10/22/19	69.80	67.20	2.60	3722.55						
RW-03	3790.24	2/10/20	70.75	67.32	3.43	3722.27	71.30	48-68 (4 in.)				
RW-03	3790.24	5/1/20	Pump	-	-	-						
RW-03	3790.24	5/11/20	70.75	67.82	2.93	3721.86						
RW-03	3790.24	6/18/20	70.73	67.61	3.12	3722.04						
RW-03	3790.24	7/27/20	70.71	67.65	3.06	3722.01						
	3790.24	8/27/20	70.71	67.70	3.01	3721.97						
RW-03	3790.24	9/15/20	70.71	67.78	2.93	3721.90						
	3790.24	10/28/20	70.71	67.88	2.83	3721.82						
RW-03	3790.24	12/7/20	70.71	67.88	2.83	3721.82						
RW-04	3790.20	2/25/19	-	-		Dry	Dry					
RW-04	3790.20	5/20/19	67.10	66.98	0.12	3723.20	-					
	3790.20	7/23/19	-	-		Dry	66.95					
RW-04	3790.20	10/22/19	-	-		Dry						
RW-04	P&A	2/19/20										
RW-4R		2/24/20								45		
	3789.19	2/26/20	67.69	67.60	0.09	3721.57	90.11	58-88 (4 in.)				
RW-4R	3789.19	3/23/20	69.05	67.53	1.52	3721.37	90.05	4 in.				
	3789.19	5/1/20	72.04	66.96	5.08	3721.26						
	3789.19	5/11/20	72.51	66.89	5.62	3721.23						
RW-4R	3789.19	6/18/20	Pump	-	-	-						
	3789.19	7/27/20	Pump	-	-	-						

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-4R	3789.19	8/27/20	Pump	-	-	-					
RW-4R	3789.19	9/15/20	72.65	67.21	5.44	3720.95					
RW-4R	3789.19	10/28/20	72.26	67.38	4.88	3720.88					
RW-4R	3789.19	12/7/20	Pump	-	-	-					
RW-05	3789.81	2/25/19	71.22	66.84	4.38	3722.14					
RW-05	3789.81	5/20/19	68.38	67.58	0.80	3722.08					
RW-05	3789.81	6/10/19	68.85	67.50	1.35	3722.05					
RW-05	3789.81	7/16/19	68.17	67.79	0.38	3721.95					
RW-05	3789.81	7/23/19	68.37	67.80	0.57	3721.90					
RW-05	3789.81	8/20/19	-	-	-	-			2.0	1.0	
RW-05	3789.81	8/13/19	-	-	-	-			0.5	0.5	
RW-05	3789.81	8/28/19	-	-	-	-			1.5	1.0	
RW-05	3789.81	9/3/19	-	-	-	-			0.4	2.3	
RW-05	3789.81	9/10/19	-	-	-	-			0.2	0.8	
RW-05	3789.81	10/2/19	-	-	-	-			0.8	0.8	
RW-05	3789.81	10/22/19	69.26	67.78	1.48	3721.75					
RW-05	3789.81	11/13/19	70.14	67.68	2.46	3721.66					504
RW-05	3789.81	11/20/19	-	-	-	-			0.2	0.8	
RW-05	3789.81	12/10/19	-	-	-	-			0.4	2.6	
RW-05	3789.81	12/23/19	-	-	-	-			0.6	0.6	
RW-05	3789.81	1/8/20	-	-	-	-			1.5	0.5	
RW-05	3789.81	1/14/20	-	-	-	-			0.0	1.0	
RW-05	3789.81	2/10/20	69.87	67.90	1.97	3721.54	71.70				
RW-05	3789.81	2/25/20	-	-	-	-			2.4	0.1	
RW-05	3789.81	5/1/20	-	67.48	4.16+	LNAPL at TD	71.64				
RW-05	3789.81	5/11/20	71.63	67.48	4.15	3721.54					
RW-05	3789.81	6/18/20	Pump	-	-	-					
RW-05	3789.81	7/27/20	Pump	-	-	-					
RW-05	3789.81	8/27/20	Pump	-	-	-					
RW-05	3789.81	9/15/20	69.27	68.64	0.63	3721.05					
RW-05	3789.81	10/28/20	70.76	68.40	2.36	3720.96					
RW-05	3789.81	12/7/20		68.18	3.47+	LNAPL at TD	71.65				
DW/ OC	2700.50	4/20/40		-	-				25	0.0	
RW-06 RW-06	3789.56 3789.56	1/29/19 2/25/19	-		- 2.66+	- LNAPL at TD	69.00		3.5	0.0	
			-	66.20		LINAPL at TD	68.86		1.0		540.0
RW-06	3789.56	5/8/19	-	-	-		69.00		1.9		546.0
RW-06	3789.56	5/20/19	-	66.80	2.06+	LNAPL at TD	68.86		4.0	0.0	
RW-06	3789.56	6/11/19		-	-	-			4.0	0.0	
RW-06 RW-06	3789.56	6/18/19		-	-				2.0	0.0	
RW-06 RW-06	3789.56	6/25/19 7/8/19	-	-		-			2.2	0.0	
	3789.56	7/8/19	-				<u> </u>		1.0	0.0	
RW-06 RW-06	3789.56		-	66.77	1.95+	LNAPL at TD	68.86				
RW-06 RW-06	3789.56 3789.56	7/23/19 8/7/19		66.35	2.51+	LNAPL at TD	68.70				336.0
RV1-00	3109.00	0///19	-	-	-	-					330.0

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-06	3789.56	8/13/19	-	-	-	-			1.2	0.0	
RW-06	3789.56	8/20/19	-	-	-	-			2.5	0.0	
RW-06	3789.56	8/28/19	-	-	-	-			2.5	0.0	
RW-06	3789.56	9/3/19	-	-	-	-			4.0	0.0	
RW-06	3789.56	9/10/19	-	-	-	-			3.0	0.0	
RW-06	3789.56	10/2/19	-	-	-	-			1.3	0.0	
RW-06	3789.56	10/22/19	-	66.49	2.37+	LNAPL at TD					
RW-06	3789.56	12/10/19	-	-	-	-			0.7	2.3	
RW-06	3789.56	1/14/20	-	-	-	-					
RW-06	3789.56	2/10/20	-	66.63	4.16+	LNAPL at TD	70.79	49-69 (4 in.)			
RW-06	3789.56	5/1/20	-	-	-	-					
RW-06	3789.56	5/11/20	70.66	66.82	3.84	3722.01					
RW-06	3789.56	6/18/20	Pump	-	-	-					
RW-06	3789.56	7/27/20	Pump	-	-	-					
RW-06	3789.56	8/27/20	Pump	-	-	-					
RW-06	3789.56	9/15/20	-	67.13	1.61+	LNAPL at TD	68.74				
RW-06	3789.56	10/28/20	71.63	67.22	4.41	3721.50					
RW-06	3789.56	12/7/20	-	67.29	3.75+	LNAPL at TD	71.04				
RW-07R	3790.58	2/25/19	68.39	67.50	0.89	3722.91					
RW-07R	3790.58	4/24/19	68.05	67.68	0.37	3722.83					
RW-07R	3790.58	5/20/19	68.62	67.61	1.01	3722.78					
RW-07R	3790.58	6/11/19	-	-	-	-			1.0	1.0	
RW-07R	3790.58	6/18/19	-	-	-	-			0.5	1.5	
RW-07R	3790.58	6/25/19	-	-	-	-			0.3	1.0	
RW-07R	3790.58	7/3/19	-	-	-	-			0.6	0.7	
RW-07R	3790.58	7/8/19	-	-	-	-			0.5	2.0	
RW-07R	3790.58	7/16/19	68.44	67.80	0.64	3722.66					
RW-07R	3790.58	7/23/19	68.60	67.80	0.80	3722.63					
RW-07R	3790.58	8/7/19	-	-	-	-			0.5	0.5	
RW-07R	3790.58	8/20/19	-	-	-	-			0.4	0.9	
RW-07R	3790.58	8/28/19	-	-	-	-			0.3	1.2	
RW-07R	3790.58	9/3/19	-	-	-	-			0.1	1.4	
RW-07R	3790.58	9/10/19	-	-	-	-			0.3	0.2	
RW-07R	3790.58	10/2/19	-	-	-	-			0.5	0.4	
RW-07R	3790.58	10/22/19	69.12	67.90	1.22	3722.45					
RW-07R	3790.58	11/20/19	-	-	-	-			1.3	1.7	
RW-07R	3790.58	12/24/19	-	-	-	-			0.4	0.6	
RW-07R	3790.58	1/14/20	-	-	-	-			1.0	0.2	
RW-07R	3790.58	1/29/20	69.10	68.15	0.95	3722.25					462
RW-07R	3790.58	2/10/20	68.48	68.26	0.22	3722.28	81.23	59.5-79.5 (4 in.)			
RW-07R	3790.58	2/25/20	-	-	-	-			0.2	0.1	
RW-07R	3790.58	5/1/20	69.93	68.18	1.75	3722.07					
RW-07R	3790.58	5/11/20	70.08	68.13	1.95	3722.08					
RW-07R	3790.58	6/18/20	70.69	68.18	2.51	3721.92					

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-07R	3790.58	7/27/20	71.20	68.14	3.06	3721.86					
RW-07R	3790.58	8/27/20	71.51	68.10	3.41	3721.83					
RW-07R	3789.90	9/15/20	71.80	68.19	3.61	3721.02					
RW-07R	3789.90	10/28/20	72.14	68.22	3.92	3720.94					
RW-07R	3789.90	12/7/20	72.35	68.23	4.12	3720.89					
RW-08	3790.01	2/25/19	72.29	66.64	5.65	3722.30					
RW-08	3790.01	5/20/19	72.75	66.41	6.34	3722.40					
RW-08	3790.01	7/16/19	72.31	66.68	5.63	3722.26					
RW-08	3790.01	7/23/19	72.67	66.65	6.02	3722.22					
RW-08	3790.01	8/13/19	-	-	-	-			0.7	0.4	
RW-08	3790.01	10/22/19	71.54	67.04	4.50	3722.12					
RW-08	3790.01	2/10/20	73.08	67.00	6.08	3721.85	82.82	59.5-79.5 (4 in.)			
RW-08	3790.01	5/1/20	Pump	-	-	-					
RW-08	3790.01	5/11/20	70.96	67.63	3.33	3721.75					
RW-08	3790.01	6/18/20	72.93	67.34	5.59	3721.61					
RW-08	3790.01	7/27/20	73.53	67.28	6.25	3721.54					
RW-08	3790.01	8/27/20	73.74	67.31	6.43	3721.48					
RW-08	3790.01	9/15/20	73.91	67.39	6.52	3721.38					
RW-08	3790.01	10/28/20	74.11	67.46	6.65	3721.29					
RW-08	3790.01	12/7/20	74.24	67.52	6.72	3721.21					
RW-09	3790.00	2/6/19	-	-	-	-			0.5		315.0
RW-09	3790.00	2/25/19	68.67	67.55	1.12	3722.24					
RW-09	3790.00	4/24/19	70.79	66.04	4.75	3723.06					
RW-09	3790.00	5/20/19	69.18	67.69	1.49	3722.03					
RW-09	3790.00	7/23/19	69.36	67.82	1.54	3721.89					
RW-09	3790.00	10/22/19	68.51	68.16	0.35	3721.77					
RW-09	3790.00	1/8/20	-	-	-	-			1.5	0	
RW-09	3790.00	2/10/20	68.90	68.38	0.52	3721.52	82.85	59.5-79.5 (4 in.)			
RW-09	3790.00	2/25/20	-	-	-	-			1.8	1	
RW-09	3790.00	5/1/20	69.20	68.52	0.68	3721.35					
RW-09	3790.00	5/11/20	69.21	66.85	2.36	3722.70					
RW-09	3790.00	6/18/20	69.39	68.56	0.83	3721.28					
RW-09	3790.00	7/27/20	69.50	68.64	0.86	3721.20					
RW-09	3790.00	8/27/20	69.58	68.68	0.90	3721.15					
RW-09	3790.00	9/15/20	69.68	68.77	0.91	3721.06					
RW-09	3790.00	10/28/20	69.90	68.25	1.65	3721.44					
RW-09	3790.00	2/7/20	70.04	68.90	1.14	3720.88					
RW-10	3789.69	1/29/19	-	-	-	-			8.0	1.0	
RW-10	3789.69	2/25/19	72.53	66.27	6.26	3722.23					
RW-10	3789.69	5/20/19	70.30	68.90	1.40	3720.52					
RW-10	3789.69	7/16/19	69.55	67.43	2.12	3721.86					
RW-10	3789.69	7/23/19	70.63	67.23	3.40	3721.81					

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-10	3789.69	10/22/19	69.89	67.60	2.29	3721.65				13 /	(3- /
RW-10	3789.69	2/10/20	73.06	66.96	6.10	3721.57	82.60	59.5-79.5 (4 in.)			
RW-10	3789.69	5/1/20	Pump	-	-	-					
RW-10	3789.69	5/11/20	69.54	67.91	1.63	3721.47					
RW-10	3789.69	6/18/20	73.30	67.22	6.08	3721.31					
RW-10	3789.69	7/27/20	73.53	67.25	6.28	3721.25					
RW-10	3789.69	8/27/20	73.61	67.30	6.31	3721.19					
RW-10	3789.56	9/15/20	73.73	67.37	6.36	3720.98					
RW-10	3789.56	10/28/20	70.89	68.08	2.81	3720.95					
RW-10	3789.56	12/7/20	Pump	-	-	-					
RW-11	3789.77	2/25/19	67.54	67.50	0.04	3722.26					
RW-11	3789.77	4/30/19	67.63	67.61	0.02	3722.16			0.1	2.9	
RW-11	3789.77	5/20/19	67.62	-	0.00	3722.15					
RW-11	3789.77	5/21/19	-	-	-	-			0.0	36.0	
RW-11	3789.77	6/11/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	6/25/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	7/23/19	67.83	-	0.00	3721.94					
RW-11	3789.77	7/23/19	-	-	-	-			0.0	28.0	
RW-11	3789.77	8/13/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	8/20/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	8/28/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	9/3/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	9/10/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	9/24/19	-	-	-	-			0.0	3.0	
RW-11	3789.77	10/2/19	-	-	-	-				3.0	
RW-11	3789.77	10/22/19	67.97	-	0.00	3721.80				28.0	
RW-11	3789.77	11/20/19	-	-	-	-				3.0	
RW-11	3789.77	12/10/19	-	-	-	-				3.0	
RW-11	3789.77	12/24/19	-	-	-	-				3.0	
RW-11	3789.77	1/14/20	-	-	-	-			0.0	3.0	
RW-11	3789.77	2/10/20	68.23	-	0.00	3721.54	85.40	(4 in.)	0.0	34.0	
RW-11	3789.77	3/17/20	-	-	-	-		· ····/		3.0	1
RW-11	3789.77	5/1/20	68.38	-	0.00	3721.39					1
RW-11	3789.77	5/11/20	68.31	-	0.00	3721.46				34.0	
RW-11	3789.77	7/27/20	68.53	-	0.00	3721.24					
RW-11	3789.77	8/27/20	68.62	-	0.00	3721.15					
RW-11	3789.77	9/15/20	68.67	-	0.00	3721.10	85.40			33.0	
RW-11	3789.77	10/28/20	68.75	-	0.00	3721.02	00.10	1		35.0	1
RW-11	3789.77	12/7/20	68.85	-	0.00	3720.92					1
	5100.17	12,1720	00.00		0.00	0120.02					
RW-12	3789.78	2/25/19	67.46	-	0.00	3722.32					
RW-12	3789.78	2/27/19	-	-	-	-			0.0	33.0	
RW-12	3789.78	4/30/19	67.54	67.53	0.01	3722.25			0.0	00.0	1
RW-12	3789.78	4/30/19	-	-	-	-		İ	0.0	3.0	1
1111 12	5.00.0	1/00/10	1	1	1	1	1	1	0.0	0.0	1

	Elevation							Well Screen			Volume
	of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Interval (ft bgs)		Volume	Groundwater
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Depth of	Well Diameter	Volume Product	Groundwater	Removed by EFR
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	Well (fbtoc)	(in)	Removed (gal.)	Bailed (gal.)	(gal.)
RW-12	3789.78	5/20/19	67.69	67.68	0.01	3722.10		()	(gui)	Duniou (guni)	(941)
RW-12	3789.78	6/11/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	6/25/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	7/23/19	67.74	-	0.00	3722.04			0.0	26.0	
RW-12	3789.78	8/13/19	•	-	-	-			0.0	3.0	
RW-12	3789.78	8/20/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	8/28/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	9/3/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	9/10/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	9/24/19	-	-	-	-			0.0	3.0	
RW-12	3789.78	10/2/19	-	-	-	-				3.0	
RW-12	3789.78	10/22/19	67.91	-	0.00	3721.87				24.0	
RW-12	3789.78	11/20/19	-	-	-	-				3.0	
RW-12	3789.78	12/10/19	-	-	-	-				3.0	
RW-12	3789.78	12/24/19	-	-	-	-				3.0	
RW-12	3789.78	1/14/20	-	-	-	-			0.0	3.0	
RW-12	3789.78	2/10/20	68.23	-	0.00	3721.55	82.82	(4 in.)		29.0	
RW-12	3789.78	3/17/20	-	-	-	-				3.0	
RW-12	3789.78	5/1/20	68.30	-	0.00	3721.48					
RW-12	3789.78	5/11/20	68.38	-	0.00	3721.40				28.0	
RW-12	3789.78	6/18/20	68.57	-	0.00	3721.21					
RW-12	3789.78	7/27/20	68.45	-	0.00	3721.33					
RW-12	3789.78	8/27/20	68.55	-	0.00	3721.23					
RW-12	3789.78	9/15/20	68.59	-	0.00	3721.19	82.82			22.0	
RW-12	3789.78	10/28/20	68.67	-	0.00	3721.11				28.0	
RW-12	3789.78	12/7/20	68.76	-	0.00	3721.02					
RW-13		2/25/20	-	-	-	-				45.0	
RW-13	3788.61	2/26/20	66.87	-	0.00	3721.74	90.13	58-88 (4 in.)			
RW-13	3788.61	3/23/20	67.23	67.05	0.18	3721.53	90.19	4 in.			
RW-13	3788.61	5/1/20	67.98	66.95	1.03	3721.46					
RW-13	3788.61	5/11/20	68.28	66.91	1.37	3721.44					
RW-13	3788.61	6/18/20	69.53	66.75	2.78	3721.33					
RW-13	3788.61	7/27/20	70.76	66.56	4.20	3721.25					
RW-13	3788.61	8/27/20	71.55	66.46	5.09	3721.18					
RW-13	3788.61	9/15/20	72.10	66.45	5.65	3721.09					
RW-13	3788.61	10/28/20	70.17	67.19	2.98	3720.85					
RW-13	3788.61	12/7/20	Pump	-	-	-					

Summary of Fluid Level Measurements and Fluids Removed 2019 and 2020 Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Depth of Well (fbtoc)	Well Screen Interval (ft bgs) Well Diameter (in)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-14		2/25/20	-	-	-	-				45.0	
RW-14	3788.59	2/26/20	66.68	66.60	0.08	3721.97	90.10	58-88 (4 in.)		43.0	
RW-14	3788.59	3/23/20	68.59	66.45	2.14	3721.73	90.32	4 in.			
RW-14	3788.59	5/1/20	72.00	65.75	6.25	3721.65					
RW-14	3788.59	5/11/20	72.47	65.65	6.82	3721.64					
RW-14	3788.59	6/18/20	Pump	-	-	-					
RW-14	3788.59	7/27/20	Pump	-	-	-					
RW-14	3788.59	8/27/20	Pump	-	-	-					
RW-14	3788.59	9/15/20	73.19	66.09	7.10	3721.15					
RW-14	3788.59	10/28/20	71.01	66.44	4.57	3721.28					
RW-14	3788.59	12/7/20	Pump	-	-	-					

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-11 was not surveyed until 6/28/17. The surveyed elevation has been entered for prior monitoring events only of for the purpose of determining the relateive trend in elevation of the groundwater gradient.

6. + indicates LNAPL thickness is at the bottom of the well (feet).

Summary of Analytical Results of BTEX in Ground Water 2019 and 2020 Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

Sample	Sample	-		Ethylbenzene	Total Xylenes			
ID Date		(mg/L)	(mg/L)	(mg/L) (mg/L)				
		0.01						
	0/40/00	0.01	0.75	0.75	0.62			
MW-1	2/19/20	P&A						
MW-3	2/19/20	P&A						
	2/10/20	10/1						
MW-3R	3/25/20	0.000755	<0.000412	<0.000160	<0.000510			
MW-3R	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-3R	9/16/20	0.00186	0.000779 J	0.000239 J	0.000974 J			
MW-3R	10/30/20	0.00292	0.000566 J	<0.000160	<0.000510			
MW-4R	2/27/19	0.000190 J	<0.000412	0.000404 J	0.000721 B J			
MW-4R	5/21/19	0.000265 J	0.000544 J	0.000225 J	0.000846 B J			
MW-4R	7/23/19	<0.000190	<0.000412	<0.000160	<0.000510			
MW-4R	10/22/19	0.000301 J	0.000535 J	0.000380 J	0.00172			
MW-4R	2/14/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-4R	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-4R	9/16/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-4R	10/30/20	<0.000190	<0.000412	<0.000160	0.000712 J			
MW-6	2/19/20	P&A						
MW-6R	3/25/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-6R	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-6R (DUP-1)	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-6R	9/16/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-6R	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-6R (DUP-1)	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-7	10/22/19	Insufficant Wa	ter					
MW-7	2/19/20	P&A						
	- / /							
MW-7R	3/25/20	< 0.000190	<0.000412	< 0.000160	<0.000510			
MW-7R	5/18/20	< 0.000190	<0.000412	< 0.000160	<0.000510			
MW-7R	9/16/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-7R	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-8	10/22/19	0.000773	0.000654 J	0.000780	0.00239			
MW-8	2/19/20	P&A	0.000034 J	0.000700	0.00239			
0-10101	2/13/20	FQA						
MW-8R	3/25/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-8R	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-8R	9/16/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-8R	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510			
MW-9	10/22/19	0.000344 J	0.000609 J	0.000289 J	0.00114 J			

Summary of Analytical Results of BTEX in Ground Water 2019 and 2020 Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

Sample	Sample	Benzene	Toluene	Ethylbenzene	Total Xylenes
ID	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)
			-	man Health Stand	
	0/10/00	0.01	0.75	0.75	0.62
MW-9	2/19/20	P&A			
	0/05/00	0.000100	0.000.440	0.000400	0.000540
MW-9R	3/25/20	< 0.000190	<0.000412	< 0.000160	< 0.000510
MW-9R	5/18/20	< 0.000190	<0.000412	< 0.000160	< 0.000510
MW-9R	9/16/20	<0.000190	<0.000412	< 0.000160	<0.000510
MW-9R	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10	2/19/20	P&A			
	2/05/00	0.0004.00	0.000.440	0.000400	0.000540
MW-10R	3/25/20	<0.000190	<0.000412	< 0.000160	<0.000510
MW-10R	5/18/20	<0.000190	<0.000412	< 0.000160	<0.000510
MW-10R	9/16/20	< 0.000190	<0.000412	< 0.000160	<0.000510
MW-10R	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510
	0/07/40	0.000400	0.000440	0.000400	0.00070 D
MW-11	2/27/19	< 0.000190	<0.000412	< 0.000160	0.00278 B
MW-11	5/21/19	<0.000190	<0.000412	0.000175 B J	<0.000510
MW-11	7/23/19		Dry		
MW-11	10/22/19	504	Dry		
MW-11	2/19/20	P&A			
	0/07/40	0.000400	0.000440	0.000400	0.000540
MW-12	2/27/19	<0.000190	<0.000412	< 0.000160	<0.000510
MW-12 DUP-1	2/27/19	< 0.000190	<0.000412	< 0.000160	<0.000510
MW-12	5/21/19	< 0.000190	<0.000412	< 0.000160	<0.000510
MW-12	7/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	10/22/19	0.000319 J	0.000583 J	0.000321 J	0.00138 J
MW-12	2/14/20	0.00285	<0.000412	< 0.000160	<0.000510
MW-12	5/18/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-12	9/16/20	0.0383	<0.000412	<0.000160	<0.000510
MW-12	10/30/20	0.00282	<0.000412	<0.000160	<0.000510
	0/05/55	0.000100			0.000
MW-13	3/25/20	< 0.000190	<0.000412	< 0.000160	<0.000510
MW-13	5/18/20	< 0.000190	<0.000412	< 0.000160	<0.000510
MW-13	9/16/20	< 0.000190	< 0.000412	< 0.000160	<0.000510
MW-13	10/30/20	<0.000190	<0.000412	<0.000160	<0.000510
	0/05/115				
RW-11	2/25/19		LNAPL Presen		
RW-11	5/21/19	0.142	0.00981	0.0276	0.104
RW-11 (DUP-1)	5/21/19	0.149	0.00822	0.0248	0.0847
RW-11	7/23/19	0.115	0.00220	0.0212	0.0620
RW-11	10/22/19	0.167	0.00805	0.0287	0.0937
RW-11	2/14/20	0.207	0.00300	0.0728	0.291
RW-11	5/18/20	0.0609	0.00338	0.0168	0.0651
RW-11	9/16/20	0.0140	0.00279	0.00415	0.0186
RW-11 (DUP-1)	9/16/20	0.0135	0.00268	0.00397	0.0180

Summary of Analytical Results of BTEX in Ground Water 2019 and 2020 Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

Sample	Sample	Benzene			Total Xylenes
ID	Date	(<i>m</i> g/L)	(<i>mg/L</i>)	(mg/L)	(<i>mg/L</i>)
			NMWQCC Hu	iman Health Stand	ards
		0.01	0.75	0.75	0.62
RW-11	10/30/20	0.0059	0.000519 J	0.00243	0.0112
RW-11 (DUP-2)	10/30/20	0.0056	0.000495 J	0.00233	0.0107
RW-12	2/27/19	1.16	0.140	0.212	0.315
RW-12	5/20/19		LNAPL Presen	t	
RW-12	7/23/19	1.58	0.159	0.0746	0.492
RW-12(DUP-1)	7/23/19	1.13	0.230	0.219	0.437
RW-12	10/22/19	1.12	0.186	0.353	0.389
RW-12 (Dup1)	10/22/19	0.950	0.112	0.186	0.256
RW-12	2/14/20	0.859	0.064	0.160	0.183
RW-12	5/18/20	0.987	0.0380	0.0655	0.173
RW-12 (DUP-2)	5/18/20	0.924	0.0360	0.0651	0.170
RW-12	9/16/20	0.561	0.00979	0.165	0.0986
RW-12	10/30/20	0.562	<0.00412	0.0250	0.0218
Trip Blank	2/27/19	<0.000190	<0.000412	<0.000160	<0.000510
Trip Blank	2/14/20	<0.000190	<0.000412	<0.000160	<0.000510

Notes:

1. Shaded cells indicate exceedance of LNAPL New Mexico Oil Conservation Division Regulatory Limit.

2. Bold indicates detection.

3. BTEX analyses by EPA Method 8021B.

4. Samples collected during March 2011 were collected by Nova Training and Environmental.

Summary of Analytical Results for PAH Compounds in Groundwater Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

Sample ID	Sample Date	Anthracene (mg/l)	Acenaphthene (mg/)	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 (mgʻl)	Dibenzoluran (mg/l)	Fluoranthene (mg/l)	Fluorene (mg/l)	Indeno(1,2,3-cd)pyrene (mg/l)	Naphthalene (mg/l)	Phenanthrene (mg/l)	Pyrene (mg/)	1-Methylnaphthalene (mg/l)	2 Methyinaphthalene (mg/)
		0.001	0.001	0.001	0.001	0.0002	0.001	0.001	0.001	0.001	0.001	uman Health Standa 0.001	ards 0.001	0.001	0.001	0.03	0.001	0.001	0.03	0.03
MW-1	12/1/08	<0.000183	< 0.000183	<0.000183	< 0.000183	<0.0002	<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-1	11/30/09	<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-1	2/19/20	P&A																		í l
MW-2	12/1/08	<0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	0.130	< 0.000183	0.178	<0.000183	0.704	0.230	<0.000183	1.68	2.31
MW-2 MW-2	11/30/09 2/19/20	<0.0229 P&A	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	0.524	<0.0229	0.755	<0.0229	2.89	1.04	<0.0229	7.25	9.78
10100-2	2/13/20	FOR				1					1									
MW-3	12/1/08	<0.000183	< 0.000183	< 0.000183	< 0.000183	<0.000183	<0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	0.0014	< 0.000183	0.00126	<0.000183	0.0426	0.00103	< 0.000183	0.0260	< 0.000183
MW-3	11/30/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00145	<0.000184	0.00155	<0.000184	0.0238	0.00134	<0.000184	0.0306	<0.000184
MW-3	11/24/10	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	0.00133	< 0.000184	0.00132	< 0.000184	<0.000184	0.00112	< 0.000184	0.0234	< 0.000184
MW-3 MW-3	12/1/11 12/6/12	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183 <0.000191	<0.000183 <0.000191	0.00163	<0.000183 <0.000191	0.00140	<0.000183 <0.000191	0.00893 <0.000191	0.00135 0.00063	<0.000183 <0.000191	0.0191 0.0016	<0.000183 <0.000191
MW-3	12/3/15	<0.000191	<0.000191	< 0.000199	< 0.000191	<0.000199	<0.000191	<0.000191	< 0.000191	< 0.000191	<0.000191	< 0.000199	<0.000191	< 0.000199	<0.000191	<0.000191	< 0.000199	<0.000191	< 0.000199	<0.000191
MW-3	11/3/16	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	< 0.000229	0.000321	< 0.000229	< 0.000229	< 0.000229	0.00184	< 0.000229	0.000370	0.00230	<0.000229
MW-3	2/19/20	P&A																		
MW-3R	10/30/20	<0.0000190	0.0000230 J	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	0.000308	<0.0000270	<0.0000169	<0.0000158	<0.0000917	0.0000352 J	<0.0000169	0.000284	<0.0000674
MW-4	11/30/09	<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	0.00118	<0.000184	< 0.000184	<0.000184	<0.000184
MW-4	10/7/14	P&A	10.000104	<0.000104	<0.000104	<0.000104	<0.000104	<0.000104	10.000104	<0.000104	<0.000104	<0.000104	<0.000104	<0.000104	<0.000104	0.00110	<0.000104	<0.000104	<0.000104	<0.000104
MW-4R	11/19/14	<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
MW-4R	12/3/15	<0.000200	< 0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	< 0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
MW-6	12/1/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
MW-6	11/30/09	<0.000183	< 0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	< 0.000183	< 0.000183	<0.000183	<0.000184	<0.000183	<0.000183	< 0.000183	<0.000183	<0.000183	< 0.000183	<0.000183	<0.000183
MW-6	2/19/20	P&A																		
MW-6R MW-6R	10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
(DUP-1)	10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
MW-7	12/1/08	< 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-7	11/30/09	< 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-7	2/19/20	P&A			-			-												
MW-7R	10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
MW-8	12/1/08	<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-8	11/30/09	<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-8 MW-8R	2/19/20	P&A <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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
MW-9	12/1/08	<0.000183	< 0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	< 0.000183	< 0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-9	11/30/09	<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-9	2/19/20	P&A																		
MW-9R	10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
MW-10	12/1/08	< 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-10	11/30/09	<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-10	2/19/20	P&A			<u> </u>	<u> </u>		<u> </u>			<u> </u>									·
MW-10R	10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	<0.0000674
MW-11	12/1/08	<0.000183	<0.000183	<0.000183	< 0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-11	11/30/09	< 0.000184	< 0.000183	<0.000184	< 0.000183	<0.000183	<0.000184	< 0.000183	<0.000183	< 0.000184	<0.000184	<0.000184	< 0.000184	<0.000184	< 0.000183	<0.000183	<0.000184	<0.000184	<0.000184	<0.000184
MW-11	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	0.000336	<0.000199
MW-11	11/3/16	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000303	<0.000185	<0.000185
MW-11	12/1/17	<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	<0.000368	<0.000184	<0.000184		

Summary of Analytical Results for PAH Compounds in Groundwater Plains Pipeline LP Darr Angell No. 2 Lea County, Mexico NMOCD AP-007

RW-1 11/3009 < 0.00922	MW-12 MW-12 MW-12							Benz	Benzo(g,h,i)p	Benzo(k,	Chry	Dibenzo(a,h)è	Dibenzofu	Fluoranthe	Fluoren	Indeno(1,2,3-cd	Naphthale	Phenanthrene (mg/l)	Pyrene (mg/l)	1-Methylnaphthalene	2-Methylnapht
Image: New 11 2/1920 PAA Image: New 12	MW-12 MW-12 MW-12																				
Image: Num:12 12/1/7 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.0018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000018 -0.000019 <th< th=""><th>MW-12 MW-12 MW-12</th><th></th><th></th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.0002</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.001</th><th>0.03</th><th>0.001</th><th>0.001</th><th>0.03</th><th>0.03</th></th<>	MW-12 MW-12 MW-12			0.001	0.001	0.001	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.03	0.001	0.001	0.03	0.03
IMV:12 1127/18 0.0000140 0.0000120 0.0000141 0.0000227 0.0000227 0.0000228 0.00000285 J 0.0000127 0.0000027 0.0000027 0.0000028 0.00000285 J 0.00000277 0.0000027 0.0000027 0.0000027 0.0000027 0.0000027 0.0000027 0.00000285 J 0.00000277 0.0000027 0.0000027 0.0000027 0.0000028 0.0000027 0.0000027 0.0000027 0.0000027 0.0000027 0.0000028 0.0000028 0.0000028 0.0000027 0.0000027 0.0000027 0.0000027 0.0000028 0.0000027 0.0000028 0.000018 0.0000027 0.0000028 0.000018 0.0000027 0.0000028 0.0000027 0.0000028 0.0000027 0.0000028 0.0000027 0.0000028 0.000018 0.0000027 0.000016 0.000018 0.0000027 0.000016 0.000018 0.0000027 0.000016 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 0.000018 <td>MW-12 MW-12</td> <td></td> <td>P&A</td> <td></td> <td> </td> <td></td>	MW-12 MW-12		P&A																		
NM:12 1127/18 -0.000140 -0.000120 -0.0000221 -0.0000227 -0.0000227 -0.0000220 -0.0000220 -0.0000220 -0.0000221 -0.0000221 -0.0000221 -0.0000221 -0.0000221 -0.0000221 -0.0000221 -0.0000221 -0.000021 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.00016 -0.0016 -0.0016 -0.0016 -0.00016 -0.0016	MW-12 MW-12		0.000405	0.000405	0.000405	0.000405	0.000405	0.000405	0.000405	0.000405	0.000405	0.000405	0.0004.05	0.000405	0.0004.05	0.000405		0.000405	0.0004.05		
NW-12 1022/19 <0.000017 0.0000171 0.0000101 0.00000227 0.0000138 0.0000138 0.0000170 0.0000117 0.0000117 0.0000118 0.0000119 0.0000111 0.0000111 0.0000111 0.0000111 0.0000111 0.0000118 0.0000119 0.0000111 0.0000111 0.0000111 0.0000118 0.0000119 0.0000111 0.0000111 0.0000111 0.0000111 0.0000111 0.0000111 0.0000119 0.0000111 0.0	MW-12																			<0.0000821	<0.0000902
mw1:3 12/108 -0.00092 -0.0092 <td></td> <td><0.00000821 0.000123 B J</td> <td><0.00000902 0.000101 B J</td>																				<0.00000821 0.000123 B J	<0.00000902 0.000101 B J
RW-1 11/108 -0.00459 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 <td>104/40</td> <td>10/22/19</td> <td><0.000014</td> <td><0.00001</td> <td><0.000012</td> <td><0.0000041</td> <td><0.0000116</td> <td><0.00000212</td> <td><0.00000227</td> <td><0.0000136</td> <td><0.0000108</td> <td><0.00000396</td> <td>0.0000235 B J</td> <td><0.0000157</td> <td>0.0000217 J</td> <td><0.0000148</td> <td>0.000197.3</td> <td>0.00002313</td> <td><0.0000117</td> <td>0.000123 B J</td> <td>0.000101 B J</td>	104/40	10/22/19	<0.000014	<0.00001	<0.000012	<0.0000041	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	0.0000235 B J	<0.0000157	0.0000217 J	<0.0000148	0.000197.3	0.00002313	<0.0000117	0.000123 B J	0.000101 B J
RW-1 11/108 -0.00459 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 -0.0016 <td></td> <td>10/30/20</td> <td><0.0000190</td> <td><0.0000190</td> <td><0.0000171</td> <td><0.0000203</td> <td><0.0000184</td> <td><0.0000168</td> <td><0.0000184</td> <td><0.0000202</td> <td><0.0000179</td> <td><0.0000160</td> <td><0.0000191</td> <td><0.0000270</td> <td><0.0000169</td> <td><0.0000158</td> <td><0.0000917</td> <td><0.0000169</td> <td><0.0000169</td> <td><0.0000687</td> <td>< 0.0000674</td>		10/30/20	<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	<0.0000917	<0.0000169	<0.0000169	<0.0000687	< 0.0000674
RW-1 11/30/09	10100-15	10/30/20	<0.0000150	<0.0000130	<0.0000171	<0.0000200	<0.0000104	<0.0000100	<0.0000104	<0.0000202	<0.0000175	<0.0000100	<0.0000131	<0.0000210	<0.0000105	<0.0000100	<0.0000011	<0.0000105	<0.0000105	<0.0000007	<0.0000074
RW-1 11/30/09	RW-1	12/1/08	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	0 208	<0.00459	0 274	<0.00459	1 01	0.346	< 0.00459	2.42	3.20
LNAPL r <td></td> <td><0.000922</td> <td>0.118</td> <td>0.154</td>																			<0.000922	0.118	0.154
RW-2 11/30/09 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00923 <0.00923 <0.00923 <0.00923 <0.00923 <0.00923 <0.																					
RW-2 11/30/09 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00922 <0.00923 <0.00923 <0.00923 <0.00923 <0.00923 <0.00923 <0.																				í l	
LINAPL Image: Constraint of the constraint o	RW-2	12/1/08	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	< 0.00184	0.0350	< 0.00184	0.0507	< 0.00184	0.224	0.0569	< 0.00184	0.410	0.526
RW-3 12/20/8 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.001	RW-2	11/30/09	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	0.0178	< 0.000922	0.0254	< 0.000922	0.157	0.0322	< 0.000922	0.266	0.347
RW-3 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 0.0101 <0.000922 0.0114 <0.000922 0.0113 0.0132 <0.00092 LNAPL -	LNAPL																			i l	
RW-3 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 0.0101 <0.000922 0.0114 <0.000922 0.0113 0.0132 <0.00092 LNAPL -																				i	
LINAPL Image: Constraint of the constraint o				< 0.000922									0.0309						< 0.000922	0.362	0.480
Image: New problem Image:	-	11/30/09	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	0.0101	< 0.000922	0.0114	< 0.000922	0.113	0.0132	<0.000922	0.128	0.164
RW-4 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.0	LNAPL																			└────	
RW-4 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.0																					
RW-4 2/19/20 P8A Image: constraint of the state																				1.58	2.14
RW-5 12/108 0.000922 0.000922 0.000922 0.000922 0.000922 0.000922 0.000922 0.000922 0.000922 0.000922 0.000923 0.000923 0.000923 0.000923 0.000923 0.000923 0.000923 0.000923 0.0				<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.0184	<0.000922	0.0263	<0.000922	0.169	0.0337	<0.000922	0.276	0.367
RW-5 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000923 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183	RW-4	2/19/20	P&A																	i	
RW-5 11/30/09 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000922 <0.000923 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <t< td=""><td>RW-5</td><td>12/1/08</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td><0.000922</td><td>0.0654</td><td><0.000922</td><td>0.0938</td><td><0.000922</td><td>0.283</td><td>0 117</td><td><0.000922</td><td>0.835</td><td>0.910</td></t<>	RW-5	12/1/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.0654	<0.000922	0.0938	<0.000922	0.283	0 117	<0.000922	0.835	0.910
LNAPL - <td></td> <td><0.000922</td> <td>0.217</td> <td>0.295</td>																			<0.000922	0.217	0.295
RW-6 12/2/08 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183 <0.00183													0.0100		0.0101		04/	0.0204		0	0.200
RW-6 11/30/09 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922																					
RW-6 11/30/09 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922 < 0.000922	RW-6	12/2/08	<0.00183	< 0.00183	< 0.00183	< 0.00183	< 0.00183	< 0.00183	< 0.00183	< 0.00183	< 0.00183	<0.00183	0.138	< 0.00183	0.188	< 0.00183	0.693	0.244	< 0.00183	1.77	2.44
RW-11 12/1/17 0.000374 0.00104 0.000469 <0.000183 <0.000183 <0.000183 0.000183 0.000281 0.000196 0.000196 0.000183 0.00270 0.00629 0.00029 0.000270 0.000193 0.00029 <td></td> <td>11/30/09</td> <td>< 0.000922</td> <td></td> <td>< 0.000922</td> <td></td> <td>< 0.000922</td> <td></td> <td></td> <td><0.000922</td> <td>0.36</td> <td>0.481</td>		11/30/09	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922	< 0.000922		< 0.000922		< 0.000922			<0.000922	0.36	0.481
	LNAPL																			1	
RW-11 11/12/19 0.00112 <0.0000100 <0.00000700 0.0000318 0.0000296 0.0000290 0.0000273 <0.0000255 0.000157 <0.00000454 0.00159 0.000153 0.00192 <0.00000739 0.00242 0.00325 0.0004																			0.000216		
	RW-11	11/12/19	0.00112			0.000318						<0.0000454	0.00159		0.00192	< 0.0000739	0.00242	0.00325	0.000402	0.00511	0.00334
		10/30/20	0.000285	< 0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	0.000144	< 0.0000160	0.000825	0.0000377 J	0.000425	<0.0000158	0.00102	0.000384	0.000131	0.00181	0.00151
		40/00/00	0.000050	0.0000001	0.0000474	0.0000000	0.0000404	0.0000400	0.0000403	0.0000000	0.0004.15	0.00004.00	0.000700	0.0000070	0.000446	0.0000450	0.000070	0.000055	0.000146	0.00474	0.00400
DUP-2) 1/30/20 0.000956 0.0000964 <0.000018 <0.000188 <0.000183 <0.000120 0.000170 0.000188 <0.000070 0.000188 <0.000070 0.000188 <0.0000180 0.000180 0.000170 0.000188 <0.0000180 0.000170 0.000188 0.0000180 0.000170 0.000188 0.0000180 0.000170 0.000188 0.000188 0.000188 0.000188 <td>(DUP-2)</td> <td>10/30/20</td> <td>0.000250</td> <td>0.0000964</td> <td><0.0000171</td> <td><0.0000203</td> <td><0.0000184</td> <td><0.0000168</td> <td><0.0000184</td> <td><0.0000202</td> <td>0.000145</td> <td><0.0000160</td> <td>0.000780</td> <td><0.0000270</td> <td>0.000418</td> <td><0.0000158</td> <td>0.000970</td> <td>0.000359</td> <td>0.000110</td> <td>0.00174</td> <td>0.00136</td>	(DUP-2)	10/30/20	0.000250	0.0000964	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	0.000145	<0.0000160	0.000780	<0.0000270	0.000418	<0.0000158	0.000970	0.000359	0.000110	0.00174	0.00136
RW-12 12/1/17 <0.000183 0.000248 <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 <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 <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 <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 <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 <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 <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 <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 <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 <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 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.000183 <0.	DW-12	12/1/17	<0.000182	0.000249	-0.000182	<0.000182	<0.000182	<0.000182	<0.000192	<0.000193	<0.000192	<0.000182	0.000857	<0.000182	0.000104	<0.000182	0.0192	0.000635	<0.000183		
																			<0.000183	0.0185	0.0217
																			<0.0000117	0.00597	0.0217
RW-12 1/1/2/19 0.0000043 0.0000041 0.0000046 0.000014	RW-12																			0.00358	0.00384

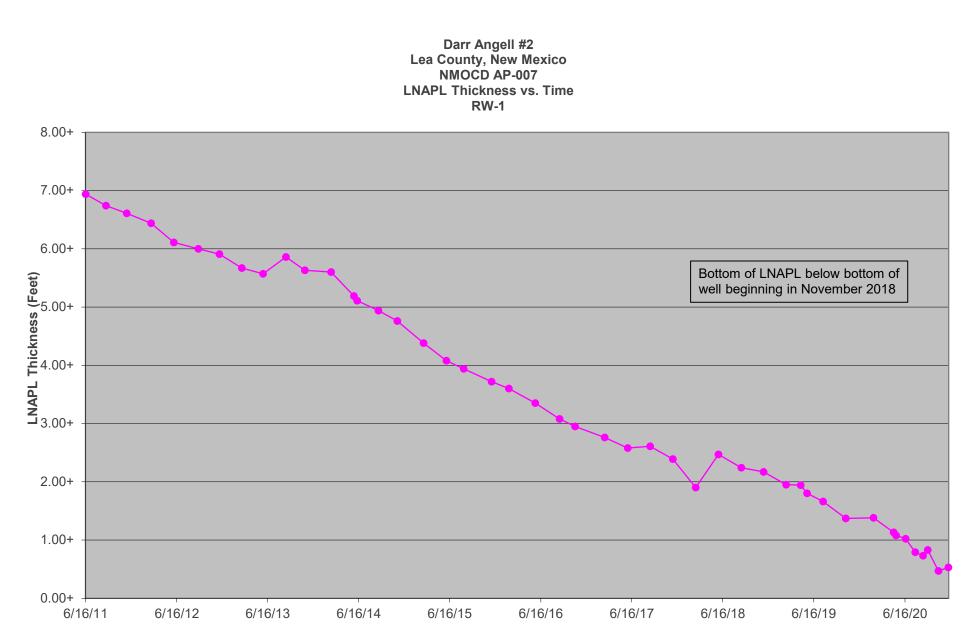
Notes:

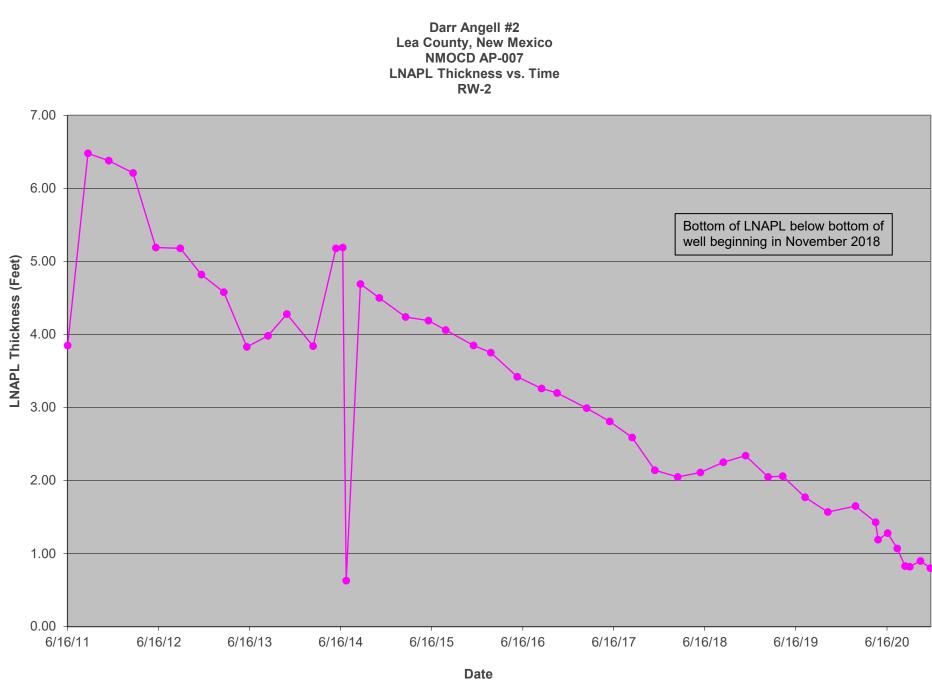
1. Shaded cells indicate New Mexico Water Quality Control Commission Limit (NMWQCC) exceedance.
2. PAH analyses by EPA Method 8270.
3. Bold indicates detection.
4. Nova Training and Environmental collected samples dated between 2008 and 2010.
5. --- indicates 1- & 2-Methylnaphthalene was not originally analyzed for and not enough fluid was available to extract for re-run.

Appendices

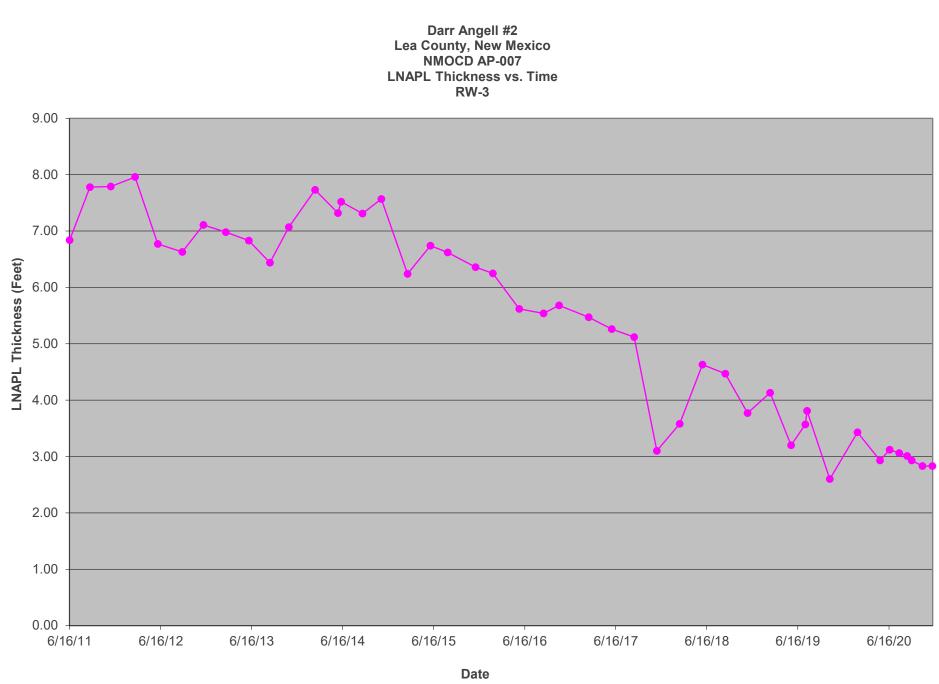
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Appendix A Charts of Thicknesses of LNAPL in Monitor and Recovery Wells vs. Time

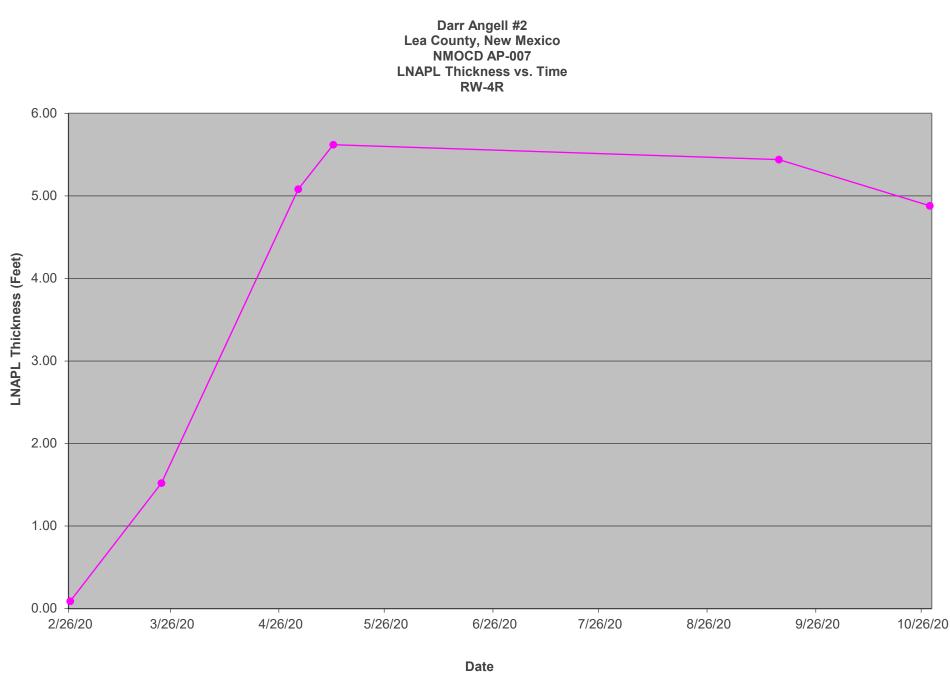




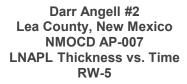
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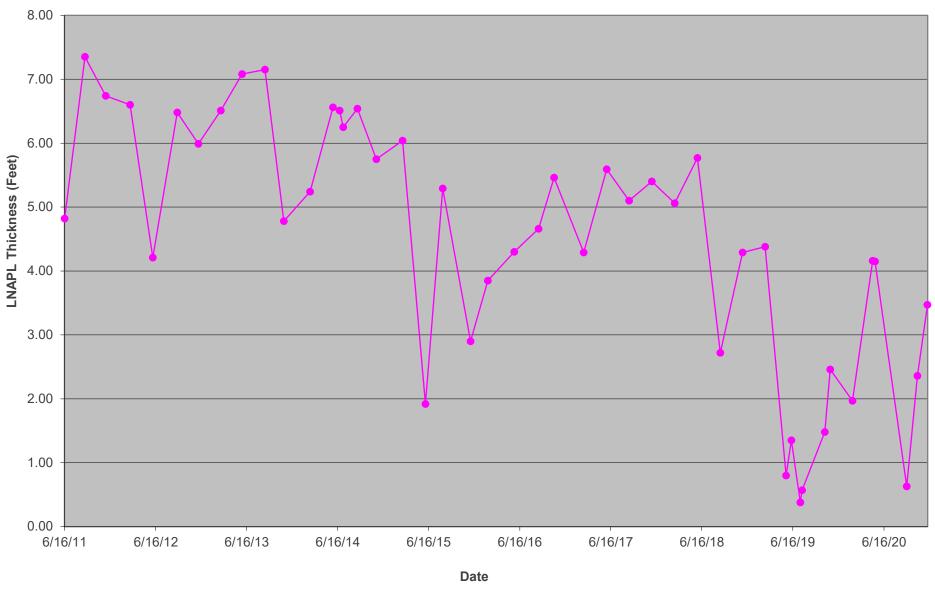


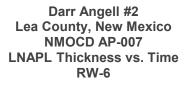
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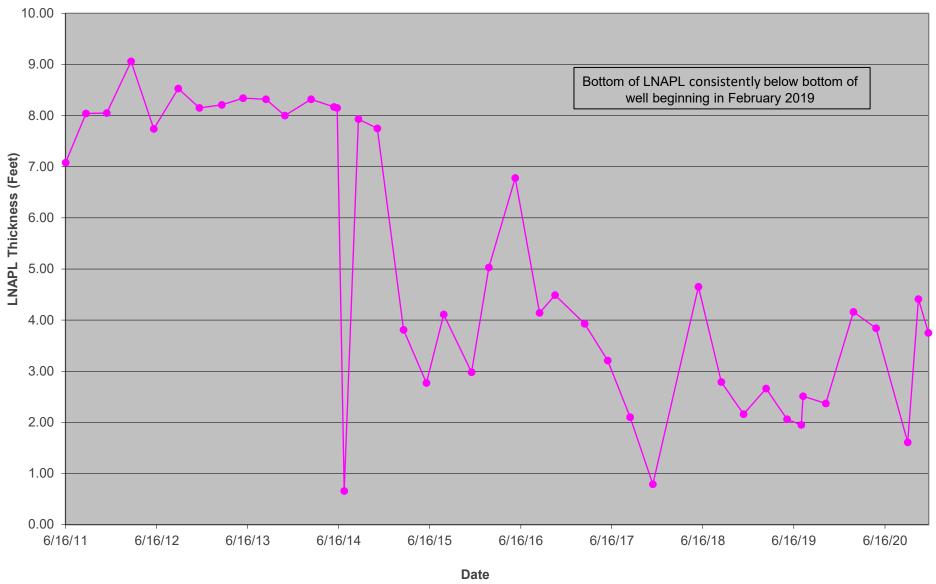


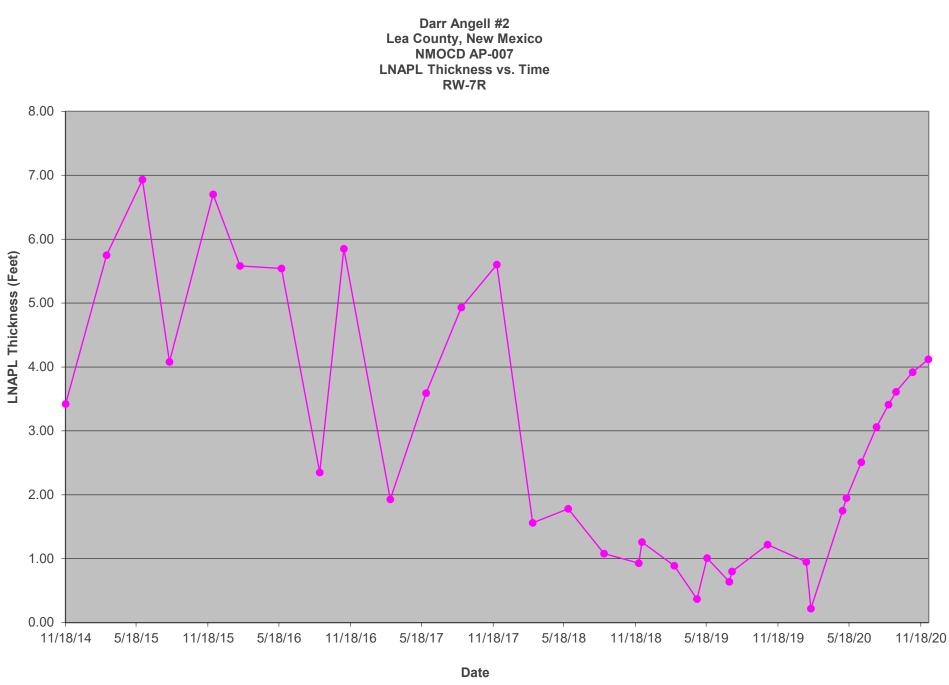
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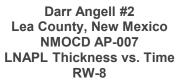


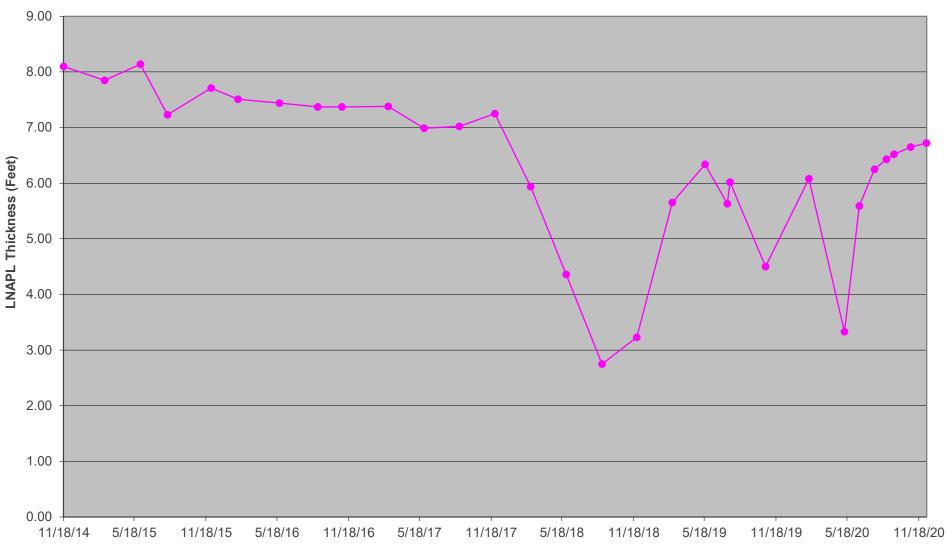


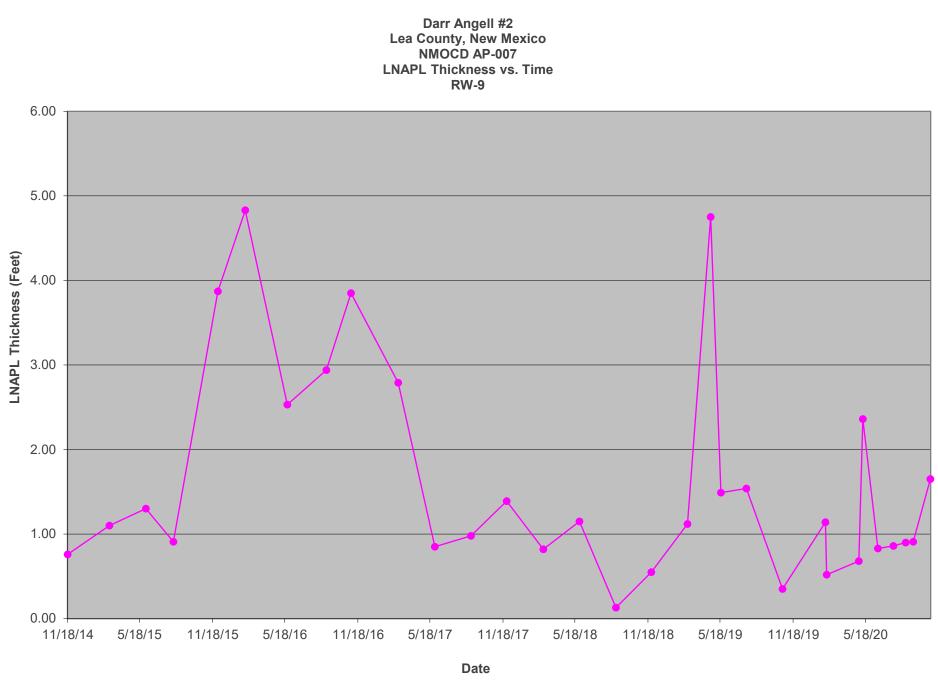




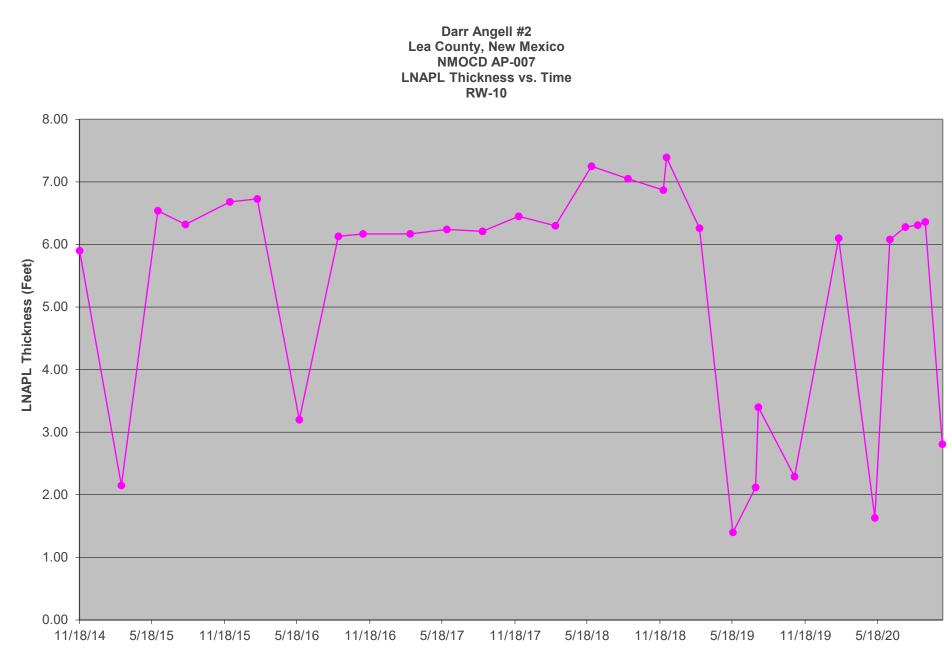
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Date

6.00

5.00

4.00 9.00 2.00 2.00

1.00

0.00

2126120

31/1/20 3125120

4122120

A18120

5120120

516120

613120

6/17/20

LNAPL Thickness vs. Time **RW-13**

Darr Angell #2 Lea County, New Mexico NMOCD AP-007

10121120

919120 9123120 1011120

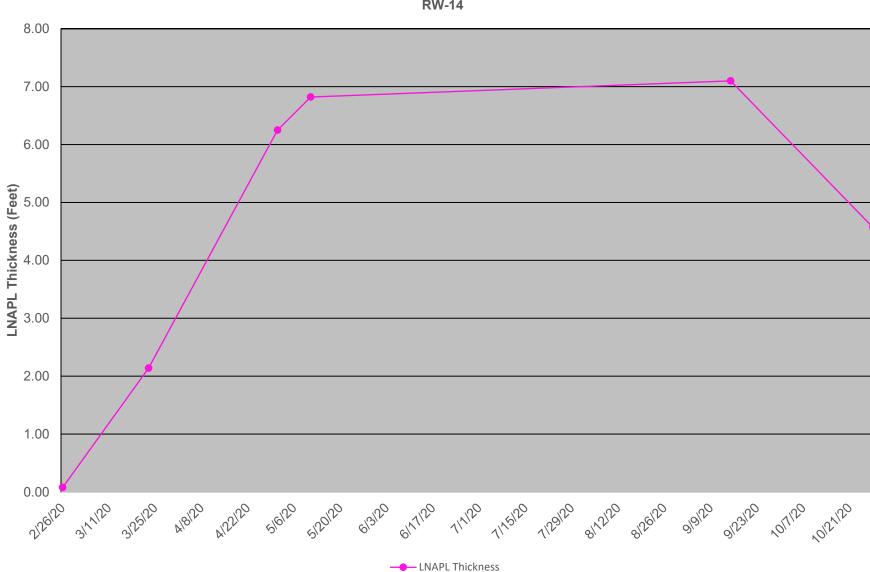


Date

711/20

71/5/20

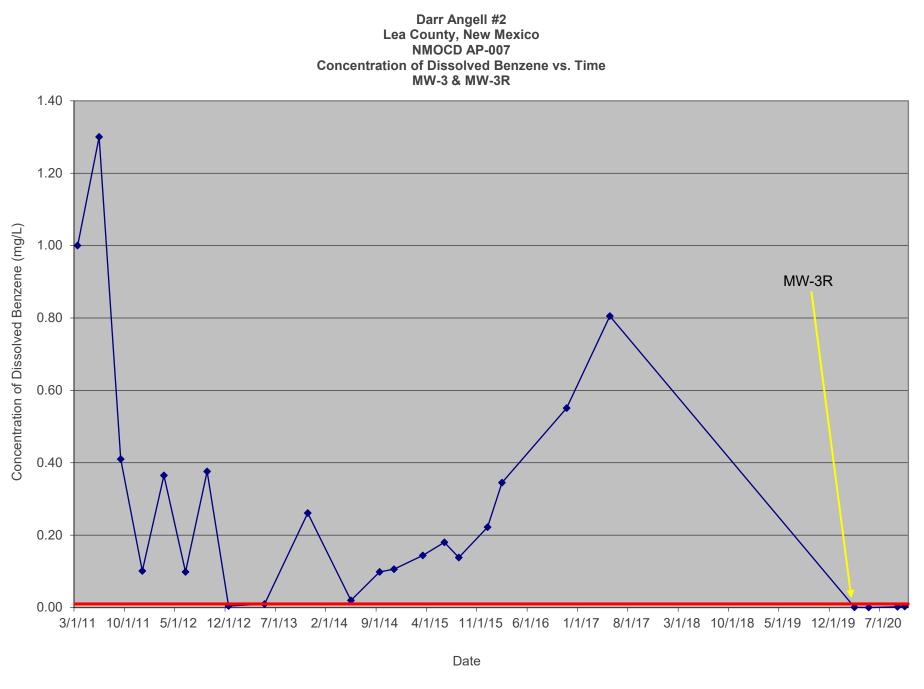
1129120 8112120 8126120



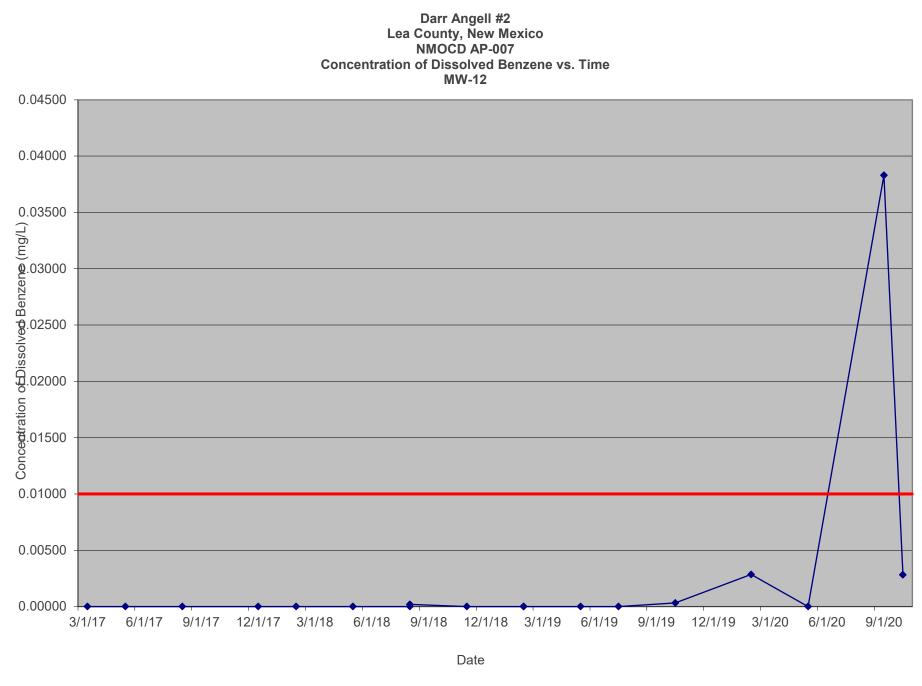
Darr Angell #2 Lea County, New Mexico NMOCD AP-007 LNAPL Thickness vs. Time RW-14

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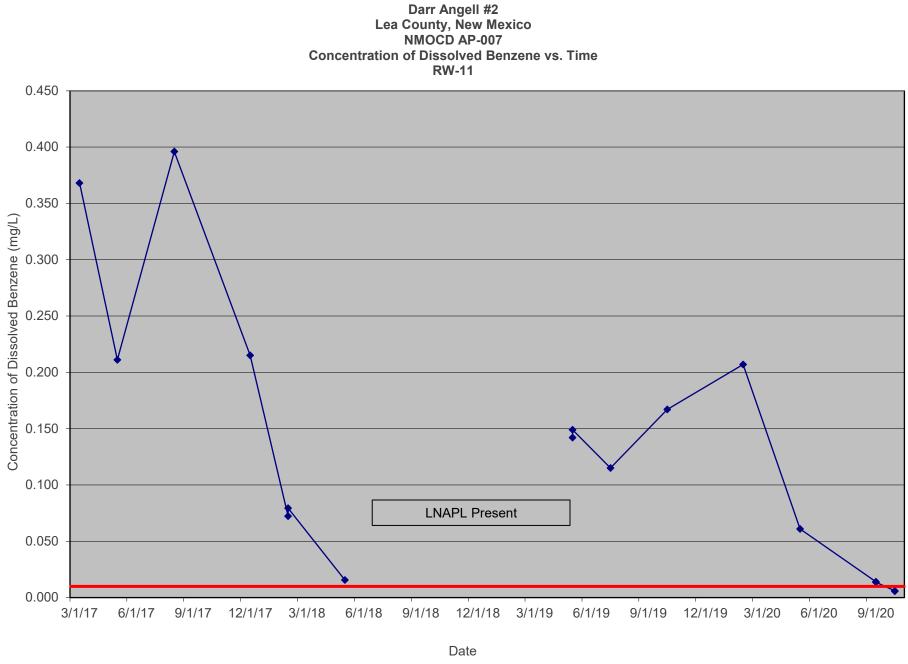
Appendix B Charts of Concentrations of Dissolved Benzene in Monitor and Recovery Wells vs. Time



Benzene —NMWQCC Human Health Standard



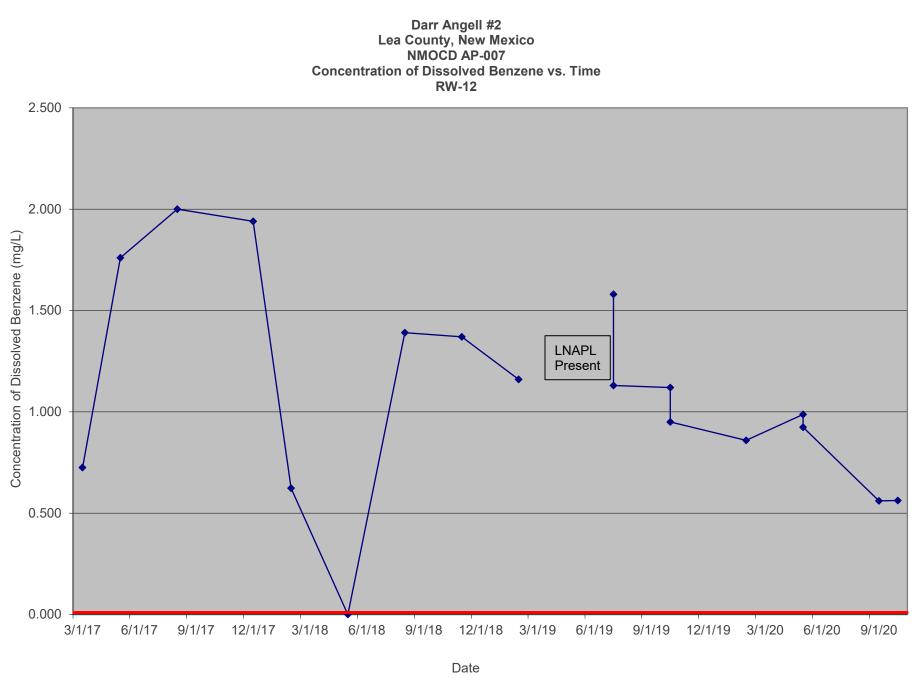
----Benzene -----NMWQCC Human Health Standard



-NMWQCC Human Health Standard Benzene

Received by OCD: 4/5/2021 1:40:32 PM

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Benzene —NMWQCC Human Health Standard

Released to Imaging: 1/11/2022 3:45:07 PM

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

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group:L1189921Samples Received:02/15/2020Project Number:074685Description:Darr Angell #2- Lea County, New MexicoSite:SRS#: LF 1999-62Report To:Becky Haskell2135 S Loop 250 WMidland, TX 79703

Sc

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Entire Report Reviewed By:

Mark W. Beasley Project Manager

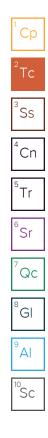
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

PROJECT: 074685 SDG: L1189921 DATE/TIME: 02/21/20 14:13

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Cn: Case Narrative	4
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SDG: L1189921

DATE/TIME: 02/21/20 14:13

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SAMPLE SUMMARY

ONE LAB. NAT Rage 63 of 201

Ср

Тс

Ss

Cn

⁵Tr

Sr

Qc

GI

ΆI

¹⁰Sc

			Collected by	Collected date/time		
MW-4R L1189921-01 GW			Matthew Laughlin	02/14/20 14:00	02/15/20 08	:30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1428932	1	02/16/20 23:19	02/16/20 23:19	BMB	Mt. Juliet, TN
			Collected by	Collected date/time		
MW-12 L1189921-02 GW			Matthew Laughlin	02/14/20 14:00	02/15/20 08	:30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1428932	1	02/16/20 23:41	02/16/20 23:41	BMB	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
RW-11 L1189921-03 GW			Matthew Laughlin	02/14/20 14:00	02/15/20 08	:30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1428932	1	02/17/20 00:03	02/17/20 00:03	BMB	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
RW-12 L1189921-04 GW			Matthew Laughlin	02/14/20 14:00	02/15/20 08	:30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1428932	10	02/17/20 00:26	02/17/20 00:26	BMB	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
TRIP BLANK L1189921-05 GW			Matthew Laughlin	02/14/20 14:00	02/15/20 08	:30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1428932	1	02/16/20 17:12	02/16/20 17:12	BMB	Mt. Juliet, TN

SDG: L1189921

DATE/TIME: 02/21/20 14:13 PAGE: 3 of 18

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.

h

Mark W. Beasley Project Manager

Released to Imaging: 1/171/2022 3:45:07 PM Plains All American, LP - GHD SDG: L1189921 DATE/TIME: 02/21/20 14:13

E: :13 PAGE: 4 of 18 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

Lab	orato	ry Name: Pace Analytical National	LRC Date: 02/21/2020 14:13					
Proj Me×		lame: Darr Angell #2- Lea County, New	Laboratory Job Number: L1189921-01, 02, 03, 04 and	05				
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1428932					
^{‡1}	A ²	Description		Yes	No	NA ³	NR ⁴	ER#
21	OI	Chain-of-custody (C-O-C)					•	
		Did samples meet the laboratory's standard conditio	ns of sample acceptability upon receipt?	Х				1
		Were all departures from standard conditions descri				Х		
2	OI	Sample and quality control (QC) identification						
_		Are all field sample ID numbers cross-referenced to	the laboratory ID numbers?	X	1	1	1	<u> </u>
		Are all laboratory ID numbers cross-referenced to th		X				
3	OI	Test reports				1	1	I
5		Were all samples prepared and analyzed within hold	ing times?	X	1	1	T	<u> </u>
		Other than those results < MQL, were all other raw v	-	X				
				X				
		Were calculations checked by a peer or supervisor?		X				
		Were all analyte identifications checked by a peer of	•					
		Were sample detection limits reported for all analyte		X				<u> </u>
		Were all results for soil and sediment samples repor	, ,	Х				<u> </u>
		Were % moisture (or solids) reported for all soil and s				X		
		Were bulk soils/solids samples for volatile analysis e	xtracted with methanol per SW846 Method 5035?			Х	I	
		If required for the project, are TICs reported?				Х		
4	0	Surrogate recovery data		_	-		-	_
		Were surrogates added prior to extraction?		Х				
		Were surrogate percent recoveries in all samples wi	thin the laboratory QC limits?	X				
5	OI	Test reports/summary forms for blank samples						
		Were appropriate type(s) of blanks analyzed?		X				
		Were blanks analyzed at the appropriate frequency?		Х				
		Were method blanks taken through the entire analyt cleanup procedures?	ical process, including preparation and, if applicable,	х				
		Were blank concentrations < MQL?		Х				
6	OI	Laboratory control samples (LCS):						
		Were all COCs included in the LCS?		X				
		Was each LCS taken through the entire analytical pr	ocedure, including prep and cleanup steps?	Х				
		Were LCSs analyzed at the required frequency?		X				
		Were LCS (and LCSD, if applicable) %Rs within the la	boratory QC limits?	Х				
			the laboratory's capability to detect the COCs at the MDL	х				
		Was the LCSD RPD within QC limits?		x			<u> </u>	
7	OI		212		I	1	<u> </u>	I
7		Matrix spike (MS) and matrix spike duplicate (MSD) d		1	1	X	r –	<u> </u>
		Were the project/method specified analytes included				-	<u> </u>	
		Were MS/MSD analyzed at the appropriate frequence	, ,			X		
		Were MS (and MSD, if applicable) %Rs within the lab	bratory QC limits?		<u> </u>	X		<u> </u>
		Were MS/MSD RPDs within laboratory QC limits?			I	Х	I	
8	OI	Analytical duplicate data		1	1		1	<u> </u>
		Were appropriate analytical duplicates analyzed for				X		<u> </u>
		Were analytical duplicates analyzed at the appropria				X	<u> </u>	
		Were RPDs or relative standard deviations within the	e laboratory QC limits?			Х		
9	OI	Method quantitation limits (MQLs):		1	-	-		
		Are the MQLs for each method analyte included in the		Х			L	
		Do the MQLs correspond to the concentration of the	lowest non-zero calibration standard?	Х				
		Are unadjusted MQLs and DCSs included in the labo	oratory data package?	Х				
10	OI	Other problems/anomalies		-				
		Are all known problems/anomalies/special condition	s noted in this LRC and ER?	Х				
		Was applicable and available technology used to low the sample results?	ver the SDL to minimize the matrix interference effects on	х		1		
		Is the laboratory NELAC-accredited under the Texas and methods associated with this laboratory data pa	Laboratory Accreditation Program for the analytes, matrices ckage?	х				
houl . O	d be re = orga	· · · ·	tory data package submitted in the TRRP-required report(s). opriate retention period.	Items i	dentifie	ed by th	e letter	"S"

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

_aborat	ory Name: Pace Analytical National	LRC Date: 02/21/2020 14:13					
Project Mexico	Name: Darr Angell #2- Lea County, New	Laboratory Job Number: L1189921-01, 02, 03, 04	and 05				
Reviewe	er Name: Mark W. Beasley	Prep Batch Number(s): WG1428932					
1 A ²	Description	1	Yes	No	NA ³	NR⁴	ER#
1 OI	Initial calibration (ICAL)						-
	Were response factors and/or relative response factor	s for each analyte within QC limits?			Х		Τ
	Were percent RSDs or correlation coefficient criteria n	•	X				<u> </u>
	Was the number of standards recommended in the me	ethod used for all analytes?	X				<u> </u>
	Were all points generated between the lowest and hig		X				1
	Are ICAL data available for all instruments used?		Х				1
	Has the initial calibration curve been verified using an	appropriate second source standard?	X				+
2 01	Initial and continuing calibration verification (ICCV and	· · · ·				1	
- 0	Was the CCV analyzed at the method-required freque		X			1	Т
	Were percent differences for each analyte within the r		X				
	Was the ICAL curve verified for each analyte?		X				+
	Was the absolute value of the analyte concentration in	the inorganic CCB \leq MDL?			Х		+
3 0	Mass spectral tuning				~	I	
	Was the appropriate compound for the method used f	for tuning?		1	Х	T	T
	Was the appropriate compound for the method used in Were ion abundance data within the method-required				X	<u> </u>	+
1 0	Internal standards (IS)				~	I	
	Were IS area counts and retention times within the me	thed required OC limits?	X			1	T
5 01	Raw data (NELAC Section 5.5.10)		^			I	
5 0		tral data) ravioured by an analyst?	X	1		<u> </u>	T
	Were the raw data (for example, chromatograms, spec Were data associated with manual integrations flagge	· · · · · · · · · · · · · · · · · · ·					╂──
6 O	Dual column confirmation		^			I	
	Did dual column confirmation results meet the method	L required QC2	-	1	Х	1	T
7 0	Tentatively identified compounds (TICs)	-required QC:			^		<u> </u>
		2 data subject to appropriate abacks?	- T	1	V	1	T
3 1	If TICs were requested, were the mass spectra and TIC				Х	I	
3 1	Interference Check Sample (ICS) results			1	V	1	
	Were percent recoveries within method QC limits?				Х	<u> </u>	<u> </u>
9	Serial dilutions, post digestion spikes, and method of s		-	1	V	1	T
	Were percent differences, recoveries, and the linearity	within the QC limits specified in the method?			Х	I	
0 01	Method detection limit (MDL) studies	2		1		r –	T
	Was a MDL study performed for each reported analyte		X				
	Is the MDL either adjusted or supported by the analysi	s of DCSs?	X				
11 OI	Proficiency test reports				-	r –	
	Was the laboratory's performance acceptable on the a	opplicable proficiency tests or evaluation studies?	X			L	
12 OI	Standards documentation			-		-	
	Are all standards used in the analyses NIST-traceable	or obtained from other appropriate sources?	Х				
13 OI	Compound/analyte identification procedures			1		-	
	Are the procedures for compound/analyte identification	on documented?	X				
4 OI	Demonstration of analyst competency (DOC)					r —	_
	Was DOC conducted consistent with NELAC Chapter		X				
_	Is documentation of the analyst's competency up-to-d		Х				
5 OI	Verification/validation documentation for methods (NE			-		1	
	Are all the methods used to generate the data docum	ented, verified, and validated, where applicable?	Х				
16 OI	Laboratory standard operating procedures (SOPs)						
	Are laboratory SOPs current and on file for each meth		Ιx	1		1	1

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).

SDG: L1189921

Laboratory Name: Pace Analytical National	LRC Date: 02/21/2020 14:13							
Project Name: Darr Angell #2- Lea County, New Mexico	Laboratory Job Number: L1189921-01, 02, 03, 04 and 05							
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1428932							
ER #1 Description	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.

a. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
NA = Not applicable;
NR = Not reviewed;

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

SDG: L1189921

SAMPLE RESULTS - 01

Volatile Organic Compounds (GC) by Method 8021B

										200
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		Эр
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	_
Benzene	U		0.000190	0.000500	0.000500	1	02/16/2020 23:19	WG1428932	T	C
Toluene	U		0.000412	0.00100	0.00100	1	02/16/2020 23:19	WG1428932		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/16/2020 23:19	WG1428932	³ C	s
Total Xylene	U		0.000510	0.00150	0.00150	1	02/16/2020 23:19	WG1428932		5
(S) a,a,a-Trifluorotoluene(PID)	99.6				79.0-125		02/16/2020 23:19	WG1428932	4	

ັSs
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ AI
¹⁰ Sc

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SAMPLE RESULTS - 02

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.00285		0.000190	0.000500	0.000500	1	02/16/2020 23:41	WG1428932	Tc
Toluene	U		0.000412	0.00100	0.00100	1	02/16/2020 23:41	WG1428932	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/16/2020 23:41	WG1428932	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	02/16/2020 23:41	WG1428932	55
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		02/16/2020 23:41	WG1428932	4

ັSs
-
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

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SAMPLE RESULTS - 03

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.207		0.000190	0.000500	0.000500	1	02/17/2020 00:03	WG1428932	Tc
Toluene	0.00300		0.000412	0.00100	0.00100	1	02/17/2020 00:03	WG1428932	
Ethylbenzene	0.0728		0.000160	0.000500	0.000500	1	02/17/2020 00:03	WG1428932	³ Ss
Total Xylene	0.291		0.000510	0.00150	0.00150	1	02/17/2020 00:03	WG1428932	55
(S) a,a,a-Trifluorotoluene(PID)	113				79.0-125		02/17/2020 00:03	WG1428932	4

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⁴ Cn
5_
°Tr
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°Sr
-
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

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SAMPLE RESULTS - 04 L1189921

Volatile Organic Compounds (GC) by Method 8021B

u		1 2							10
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.859		0.00190	0.000500	0.00500	10	02/17/2020 00:26	WG1428932	[1]
Toluene	0.0644		0.00412	0.00100	0.0100	10	02/17/2020 00:26	WG1428932	
Ethylbenzene	0.160		0.00160	0.000500	0.00500	10	02/17/2020 00:26	WG1428932	3
Total Xylene	0.183		0.00510	0.00150	0.0150	10	02/17/2020 00:26	WG1428932	
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		02/17/2020 00:26	WG1428932	4

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	02/16/2020 17:12	WG1428932	Tc
Toluene	U		0.000412	0.00100	0.00100	1	02/16/2020 17:12	WG1428932	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/16/2020 17:12	WG1428932	³ S c
Total Xylene	U		0.000510	0.00150	0.00150	1	02/16/2020 17:12	WG1428932	0.5
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		02/16/2020 17:12	WG1428932	4

³ Ss
⁴ Cn
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⁶ Sr
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⁹ Al
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QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3501672-2 02/16/2	20 15:19	(MB) R3501672-2 02/16/20 15:19								
	MB Result	MB Qualifier	MB MDL	MB RDL						
Analyte	mg/l		mg/l	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)	101			79.0-125						

Laboratory Control Sample (LCS)

(LCS) R3501672-1 02/16/20 14:11

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0536	107	77.0-122	
Toluene	0.0500	0.0535	107	80.0-121	
Ethylbenzene	0.0500	0.0508	102	80.0-123	
Total Xylene	0.150	0.147	98.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			102	79.0-125	

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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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1189921

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS

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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 of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. * Not all certifications held by the laboratory are applicable to the results reported in the attached report. * Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ¹⁶	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana 1	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



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Received by OCD: 4/5/2021 1:40:32 PM

			Billing Information:				Analysis / Container / Preservative							Chain of Custody Page of		
Plains All American, I 2135 S Loop 250 W Midland, TX 79703				Bryant Big Spring, S d, TX 79701	ite. 600	Pres Chk								0	e Analytical®	
Report to:			Email To:													
Becky Haskell Project		I cite distant	Christopher.Knight@ghd.com;											12065 Lebanon R Mount Juliet, TN Phone: 615-758-5	37122	
Description: Darr Angell #2- Lea	County, Ne	City/State Collected:	prin	ton, NI	Please Cir PT MT C	rcle: T ET							1	Phone: 800-767-5 Fax: 615-758-585	859	
Phone: 432-686-0086 Fax:	Client Project 074685	#		Lab Project	# HD-074685									SDG # LI	69921	
Collected by (print): Matthew Lanahlin	Site/Facility ID SRS#: LF 1			P.O. #										Table #	AINSGHD	
Collected by (signature):		ab MUST Be		Quote #			nb-HCI							Template:T1	39790	
Immediately Packed on Ice N Y Y		y 5 Day y 10 Da		Date	Results Needed	No. of	40mlAmb-							Prelogin: P75 PM: 134 - Ma PB:		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs					24	- al		Shipped Via:		
M		L	1				BTEX			1.00				Remarks	Sample # (lab only	
MW-4R	Osnb	GW	2	02/14	1400	3	3			-	-				-01	
MW-12	Grab	GW	~	02/14	1445	3	3								-02	
RW-11	Grab	GW	-	02/14	1515	3								- Art	-03	
RW-12	Grab	GW	-	02/14	1545	3	3	3							-04	
		GW				3								et all		
	1.1.1.1.1.1.1	GW	12-1-1			100	. week						Sec.			
		GW	45.	a martin					and the second			and the second sec	2.00	-	10000	
and the second sec	Same and	GW	12	2.04		1.1								C Const	The state of	
		GW	R-SPACE		20 Contract											
		GW						14	Sec. 1					a second	1	
S - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay WW - WasteWater	Remarks:		, di			- - 			рН Flow		Temp		COC Seal COC Signe Bottles a	mple Receipt C Present/Intact d/Accurate: rrive intact:	necklist : _NP _Y	
DW - Drinking Water DT - Other	Samples return	ied via: IExCouri	ier		Tracking # 39	Foy	10	33-	3/2	-10)		Sufficien	ottles used: t volume sent: <u>If Applicab</u>		
Relinquished by : (Signature)	in the second	Date:		ime: 1600	Received by: (Signa	ture)				nk Regeiv		lo Меон	Preservat	Headspace: ion Correct/Che n <0.5 mR/hr:	acked:	
Relinquished by (Signature)		Date:		me:	Received by: (Signat	ture)		~	Temp:	12°C	Bottles Re	ceived:	If preservat	on required by Log	in: Date/Time	
elinquished by : (Signature)		Date:	Ti	me:	Received for lab by:	(Signatu	ire)	1	Date:	=.6 +a.	Time:	216	Hold:		Condition: NCF / OK	

6

- Received by OCD: 4/5/2021 1:40:32 PM

		Billing Information:						Analysis / Container / Preservative						Chain of Custody Page of			
Plains All American,	LP - GHD		Camille Bryant 505 N. Big Spring, Ste. 600 Midland, TX 79701				5									ay rage OI	
2125 6 1 250								1							Pac	e Analytical*	
2135 S Loop 250 W Midland, TX 79703										No.7					National	Center for Testing & Innovatio	
Report to:		1997 - 1997 -	Email To: becky.haskell@ghd.com;														
Becky Haskell			Christoph	er.Knight@gho	d.com;	10.00									12065 Lebanon R Mount Juliet, TN	37122	
Project Description: Darr Angell #2- Lea	a County, Ne	City/State Collected:	7		Please Circle: PT MT CT ET										Phone: 615-758-5 Phone: 800-767-5 Fax: 615-758-5855	859	
Phone: 432-686-0086 Fax:	Client Project # 074685			Lab Project a	# 1D-074685										SDG# L1	189921	
Collected by (print):	Site/Facility ID # SRS#: LF 1999-62			P.O. #			_								Table # Acctnum: PL	AINSGHD	
Collected by (signature):				Quote #	te #		nb-HC								Template: T1	39790	
Next Day 5 Da		y 10 D	/ (Rad Only) ay (Rad Only)	Date I	Results Needed	No. of	40mlAmb-H								PM: 134 - Mar PB:		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTEX 4								Shipped Via: Remarks	Sample # (lab only)	
		GW		and the second second													
a second		GW															
		GW	14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	1993		2				1-1							
		GW	- and					128			-	-			a succession		
TRIP BLANK		GW		1.2.31	- Para an										1384	-05	
		10.75			100 C	9 4		1.05	120								
	1.1.1.1														are a me		
	12-1-1			12													
		A. Sala	in de la composition br>Composition de la composition de la comp														
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:	<u> </u>	<u> </u>						and and a second se	pH	Tem Othe		COC	Seal P: Signed	<u>ole Receipt Ch</u> resent/Intact /Accurate: rive intact:	necklist : MP Y N N	
DW - Drinking Water OT - Other	Samples retur UPSFe	ned via: dExCoui	rier		Tracking #								Cori Sufi	rect bot ficient	ttles used: volume sent: <u>If Applicab</u>	Le NN	
Relinquished by : (Signature)		Date:	T	ime:	Received by: (Sign	ature)			T	rip Blank R	1	естно НСС Меон	Pres	servatio	eadspace: on Correct/Che <0.5 mR/hr:	ecked: Y N Y N Y N	
Relinquished by : (Signature)		Date:	Т	ime:	Received by: (Sign	ature)		0	Т	emp! A		TBR les Received:	If pre	If preservation required by Login: Date/Time			
Relinquished by : (Signature) Date:		Date:	T	ime:	Received for lab b	y: Signard	uret	1		7/16/	Tim		Hold	:		Condition: NCF / OK)	

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To: L1201075 03/20/2020 11209885/02 Darr Angell #2 SRS Darr Angell #1 SRS DARR ANGELL #2 Becky Haskell 2135 S Loop 250 W Midland, TX 79703 Page 79 of 261

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.

Released to Imaging: 1/11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209885/02

SDG: L1201075 DATE/TIME: 04/16/20 15:36 PAGE: 1 of 14

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Released to Imaging: 01/11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209885/02

SDG: L1201075 DATE/TIME: 04/16/20 15:36

TIME: 0 15:36 PAGE: 2 of 14 Received by OCD: 4/5/2021 1:40:32 PM

SAMPLE SUMMARY

ONE LAB. NAT Rage 81 of 201

			Collected by	Collected date/time			
DARR 2-SYSTEM ON L1201075-01 Air			Matthew Laughlin	03/18/20 15:00	03/20/20 09	:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location	
			date/time	date/time			
Volatile Organic Compounds (MS) by Method M18-Mod	WG1447620	800	03/21/20 05:28	03/21/20 05:28	CAW	Mt. Juliet, TN	
			Collected by	Collected date/time	e Received date/time		
DARR-2-SYSTEM OFF L1201075-02 Air			Matthew Laughlin	03/18/20 15:30	03/20/20 09	:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location	
			date/time	date/time			
Volatile Organic Compounds (MS) by Method M18-Mod	WG1447620	400	03/21/20 06:04	03/21/20 06:04	CAW	Mt. Juliet, TN	

Ср

Тс

SDG: L1201075

DATE/TIME: 04/16/20 15:36

PAGE: 3 of 14

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.

Mark W. Beasley Project Manager

Report Revision History

Level II Report - Version 1: 03/24/20 15:40

SDG: L1201075 DATE/TIME: 04/16/20 15:36 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

Lab	orato	ry Name: Pace Analytical National	LRC Date: 04/16/2020 15:36										
Proj	ect N	Jame: Darr Angell #2 SRS Darr Angell #1	Laboratory Job Number: L1201075-01 and 02										
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1447620										
# ¹	A ²	Description	•	Yes	No	NA ³	NR⁴	ER# ⁵					
R1	OI	Chain-of-custody (C-O-C)		-	_								
		Did samples meet the laboratory's standard conditions	of sample acceptability upon receipt?	Х									
		Were all departures from standard conditions describe	d in an exception report?			Х							
R2	OI	Sample and quality control (QC) identification											
		Are all field sample ID numbers cross-referenced to the	e 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	g times?	X									
		Other than those results < MQL, were all other raw values	ues bracketed by calibration standards?	X									
		Were calculations checked by a peer or supervisor?		X									
		Were all analyte identifications checked by a peer or s	upervisor?	X									
		Were sample detection limits reported for all analytes r	not detected?	X									
		Were all results for soil and sediment samples reported	d on a dry weight basis?	Х									
		Were % moisture (or solids) reported for all soil and see	diment samples?			Х							
		Were bulk soils/solids samples for volatile analysis extr	· · · · · · · · · · · · · · · · · · ·			Х							
		If required for the project, are TICs reported?				Х							
R4	0	Surrogate recovery data											
	-	Were surrogates added prior to extraction?		X									
		Were surrogate percent recoveries in all samples withi	n the laboratory QC limits?	X									
R5	OI	Test reports/summary forms for blank samples		•									
		Were appropriate type(s) of blanks analyzed?		X	1	1							
		Were blanks analyzed at the appropriate frequency?		X									
		Were method blanks taken through the entire analytica	al 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 proc	edure, including prep and cleanup steps?	X									
		Were LCSs analyzed at the required frequency?		X									
		Were LCS (and LCSD, if applicable) %Rs within the labo	pratory QC limits?	X									
			e laboratory's capability to detect the COCs at the MDL	X									
		used to calculate the SDLs?					I						
	-	Was the LCSD RPD within QC limits?		X									
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) dat					r —	r					
		Were the project/method specified analytes included in				X							
		Were MS/MSD analyzed at the appropriate frequency?				X							
		Were MS (and MSD, if applicable) %Rs within the laboration of the	atory QC limits?	 	<u> </u>	Х		ļ					
		Were MS/MSD RPDs within laboratory QC limits?			<u> </u>	Х							
R8	OI	Analytical duplicate data			-		1	1					
		Were appropriate analytical duplicates analyzed for ea		<u> </u>	<u> </u>	Х		ļ					
		Were analytical duplicates analyzed at the appropriate		<u> </u>	<u> </u>	Х	<u> </u>	ļ					
		Were RPDs or relative standard deviations within the la	aboratory QC limits?		1	Х							
R9	OI	Method quantitation limits (MQLs):		-		_		•					
		Are the MQLs for each method analyte included in the		X	 		I						
		Do the MQLs correspond to the concentration of the lo		X	 								
		Are unadjusted MQLs and DCSs included in the labora	itory data package?	Х	1								
R10	OI	Other problems/anomalies					-						
		Are all known problems/anomalies/special conditions r		X	 								
		the sample results?	r the SDL to minimize the matrix interference effects on	х									
		Is the laboratory NELAC-accredited under the Texas La and methods associated with this laboratory data pack	х										
shoul 2. O 3. NA	d be r = orga A = No	ntified by the letter "R" must be included in the laborato etained and made available upon request for the approp anic analyses; I = inorganic analyses (and general chemis t applicable; t reviewed;		ltems i	dentifie	ed by th	e letter	"S"					

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

PROJECT: 11209885/02

SDG: L1201075 PAGE: 6 of 14

Lab	orato	ory Name: Pace Analytical National	LRC Date: 04/16/2020 15:36									
Proj	ect N	Name: Darr Angell #2 SRS Darr Angell #1	Laboratory Job Number: L1201075-01 and 02									
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1447620									
#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	ors for each analyte within QC limits?	X								
		Were percent RSDs or correlation coefficient criteria		X								
		Was the number of standards recommended in the r	nethod used for all analytes?	X								
		Were all points generated between the lowest and h	ighest standard used to calculate the curve?	X								
		Are ICAL data available for all instruments used?		X			1					
		Has the initial calibration curve been verified using a	n appropriate second source standard?	X								
52	OI	Initial and continuing calibration verification (ICCV an										
Was the CCV analyzed at the method-required frequ			· · · · · · · · · · · · · · · · · · ·	Х	1		1	Г				
		Were percent differences for each analyte within the	•	X				<u> </u>				
		Was the ICAL curve verified for each analyte?		X				<u> </u>				
	Was the absolute value of the analyte concentration		in the inorganic CCB < MDI ?			X		<u> </u>				
53	0	Mass spectral tuning		I			I	<u> </u>				
	Ŭ	Was the appropriate compound for the method used	for tuning?	X	1	T	T	<u>г</u>				
		Were ion abundance data within the method-require		X								
54	0	Internal standards (IS)						<u> </u>				
7-1	Ŭ	Were IS area counts and retention times within the m	acthod required OC limits?	X	T	1	T					
5	01	Raw data (NELAC Section 5.5.10)		^	1		I	<u> </u>				
5		Were the raw data (for example, chromatograms, spe	actral data) raviowed by an analyst?	X	1	T	T T					
			· · · ·	- Â		+		┼──				
6	0	Were data associated with manual integrations flagg Dual column confirmation		^			I	L				
0	0	Did dual column confirmation results meet the metho	ad required QC2		1	X	т —	T				
57							I	<u> </u>				
57	0	Tentatively identified compounds (TICs)	10 data subject to appropriate abasis?		1	X	<u>г</u>	T				
0		If TICs were requested, were the mass spectra and T					<u> </u>	<u> </u>				
58		Interference Check Sample (ICS) results			1		T	T				
<u>``</u>		Were percent recoveries within method QC limits?			<u> </u>	X	I					
59		Serial dilutions, post digestion spikes, and method of			1		1					
10		Were percent differences, recoveries, and the linear	ty within the QC limits specified in the method?			Х	I					
510	OI	Method detection limit (MDL) studies			1	-	-					
		Was a MDL study performed for each reported analy		<u> </u>				—				
		Is the MDL either adjusted or supported by the analy	sis of DCSs?	X								
511	OI	Proficiency test reports			1	-	-	-				
		Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	X								
512	OI	Standards documentation			1	1	1					
		Are all standards used in the analyses NIST-traceable	e or obtained from other appropriate sources?	X								
513	OI	Compound/analyte identification procedures			-	1	1					
		Are the procedures for compound/analyte identificat	ion documented?	X								
514	OI	Demonstration of analyst competency (DOC)			-		-	-				
		Was DOC conducted consistent with NELAC Chapte		X			ļ	<u> </u>				
		Is documentation of the analyst's competency up-to-		Х								
515	OI	Verification/validation documentation for methods (N	• •		_		-	_				
		Are all the methods used to generate the data docur	nented, verified, and validated, where applicable?	Х		<u> </u>						
516	OI	Laboratory standard operating procedures (SOPs)										
		Are laboratory SOPs current and on file for each met	hod performed	Х								
shoul 2. O 3. NA 4. NF	d be r = orga \	retained and made available upon request for the appr anic analyses; I = inorganic analyses (and general cher ot applicable; t reviewed;			identifie	ed by th	e letter	"S"				

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

SDG: L1201075

Project Name: Darr Angell #2 SRS Darr Angell #1	Laboratory Job Number: L1201075-01 and 02				
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1447620				
ER # ¹ Description					

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

Sr

Qc

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ΆI

Sc

Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	160	511	4870	15600		800	WG1447620
Foluene	108-88-3	92.10	160	603	3060	11500		800	WG1447620
Ethylbenzene	100-41-4	106	160	694	669	2900		800	WG1447620
m&p-Xylene	1330-20-7	106	320	1390	783	3390		800	WG1447620
o-Xylene	95-47-6	106	160	694	357	1550		800	WG1447620
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1447620
TPH (GC/MS) Low Fraction	8006-61-9	101	160000	661000	925000	3820000		800	WG1447620
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1447620

L12

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
nalyte			ppbv	ug/m3	ppbv	ug/m3			
enzene	71-43-2	78.10	80.0	256	1940	6200		400	WG1447620
oluene	108-88-3	92.10	80.0	301	2020	7610		400	WG1447620
thylbenzene	100-41-4	106	80.0	347	592	2570		400	WG1447620
1&p-Xylene	1330-20-7	106	160	694	740	3210		400	WG1447620
-Xylene	95-47-6	106	80.0	347	317	1370		400	WG1447620
lethyl tert-butyl ether	1634-04-4	88.10	80.0	288	ND	ND		400	WG1447620
PH (GC/MS) Low Fraction	8006-61-9	101	80000	330000	569000	2350000		400	WG1447620
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1447620

Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3511078-3 03/20/20) 22:41			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
MTBE	U		0.0505	0.200
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	17.4	J	6.91	200
(S) 1,4-Bromofluorobenzene	95.6			60.0-140

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

(LCS) R3511078-1 03/20/2	0 21:23 • (LCSE) R3511078-2	03/20/20 22:0	4						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	3.75	3.83	100	102	70.0-130			2.11	25
Benzene	3.75	3.80	3.77	101	101	70.0-130			0.793	25
Toluene	3.75	3.84	3.95	102	105	70.0-130			2.82	25
Ethylbenzene	3.75	3.85	3.92	103	105	70.0-130			1.80	25
m&p-Xylene	7.50	7.97	7.91	106	105	70.0-130			0.756	25
o-Xylene	3.75	3.77	3.82	101	102	70.0-130			1.32	25
TPH (GC/MS) Low Fraction	203	212	223	104	110	70.0-130			5.06	25
(S) 1,4-Bromofluorobenzene				103	100	60.0-140				

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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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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 resul 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.

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Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana 1	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: P11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209885/02

SDG: L1201075 DATE/TIME: 04/16/20 15:36

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		CROLE IN THE REAL	LO Desta Dr., Ste. 550E Midland, TX 79705											Netional Cer	ter for Testing & Innovetio		
Beport to: Becky Haskell				kell@ghd.com;g	lenn.quinney@ghd	.com;				124					12065 Lebanon Rd Mount Juliet, TN 371 Phone: 615-758-585	rt, TN 37122 -758-5858	
Project City/State		City/State Collected:	1		Please Circl PT MT CT	e:	中国の			1			-		Phone: 800-767-585 Fax: 615-758-5859		
Phone: 432-250-7917 Fax:	Client Project # L 11209885/02 F Site/Facility ID # P SRS DARR ANGELL #1		Lab Project # PLAINSGHI	0-11209885					13		-				1201015		
Collected by (print): Matthew Lowahlin			P.O. #		2								Acctnum: PLAINSGHD Template: T163766				
Collected by (signature):			Quote #	esults Needed	No.	MOD Tedlar			10			Prelogin: P757791 PM: 134 - Mark W. Beasley PB: 2 -25-2020Gm					
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	M18-MOD								Shipped Via: Fe Remarks	Sample # (lab only	
Darr 2-System ON	Grab	Air	-	3/18/2	1500	1		in the second se					100			-01	
Darr-2-System OFF	600b	Air	-	3/18/20	1530	1			-			12					
Darr 1 - System ON	brab	Air	-	7/18/2	1600	+	12.10					-					
Darr 1-System OFF	Grab	Air	~	3/18/2.	1630	$\frac{1}{1}$								5 	6		
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			3				233		-				122				
	and the state		15										1		and the second s		
1	2	2 3		-			1						-	-			
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:					100			pH Flo	W	_ Temp _ Other		COC S Bottl Corre	eal P. igned es ar ct bo	Dle Receipt Cl resent/Intact /Accurate: rive intact: ttles used:		
DW - Drinking Water OT - Other	Samples retur UPSFe	ned via: dExCo	urier		Tracking # 16	63	57	5028	13			0	VOA Z	ero H	volume sent: <u>If Applicab</u> eadspace:	leY	
Relinquished by : (Signature)		Date:	3/19/2,	Time: 14:30	Rediver by: (Siefe	tyre)	r	N	Trip Bl	ank Recei	HCL TBR	MeoH	RAD S	creen	on Correct/Ch <0.5 mR/hr:	<u></u>	
Relinquished by (Signature	/	Date:	7-20	Time:	Received by Signa	ture)			Temp:	1:20	C Bottles R	ecejved:		ervatio	on required by Lo		
Relinquished by : (Signature)		Date:		Time:	Received for lab by	: (Signa	ture		Date:	22/2	Time:	00	Hold:			Condition: NCF / OK	

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Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: L1203835 03/28/2020 11209891 Plains Darr 2 SRS-LF 1999-62

Report To:

Becky Haskell 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Mark W. Beasley Project Manager

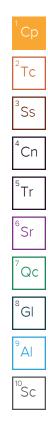
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

Released to Imaging: 1/11/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891

SDG: L1203835 DATE/TIME: 04/06/20 10:30

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ME: 10:30 PAGE: 2 of 19 Received by OCD: 4/5/2021 1:40:32 PM

SAMPLE SUMMARY

ONE LAB. NAT Rage 95 of 201

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MW-13 L1203835-01 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 10:30	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 13:33	03/31/20 13:33	BMB	Mt. Juliet, TN
MW-6R L1203835-02 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 10:40	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 13:55	03/31/20 13:55	BMB	Mt. Juliet, TN
MW-7R L1203835-03 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 11:15	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 14:16	03/31/20 14:16	BMB	Mt. Juliet, TN
WW-8R L1203835-04 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 11:30	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
/olatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 14:38	03/31/20 14:38	BMB	Mt. Juliet, TN
MW-3R L1203835-05 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 12:35	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
/olatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 14:59	03/31/20 14:59	BMB	Mt. Juliet, TN
MW-10R L1203835-06 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 12:45	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 15:21	03/31/20 15:21	BMB	Mt. Juliet, TN
WW-9R L1203835-07 GW			Collected by Ryan Livingston	Collected date/time 03/25/20 13:20	Received da 03/28/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1453220	1	03/31/20 15:42	03/31/20 15:42	BMB	Mt. Juliet, TN

PROJECT: 11209891

SDG: L1203835

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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.

h

Mark W. Beasley Project Manager

SDG: L1203835

DATE/TIME: 04/06/20 10:30

PAGE: 4 of 19 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

Lab	orato	ry Name: Pace Analytical National	LRC Date: 04/06/2020 10:30									
Proj	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1203835-01, 02, 03, 04, 05, 06 and 07									
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1453220									
# 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 o	of sample acceptability upon receipt?	Х								
		Were all departures from standard conditions described	in an exception report?			Х						
R2	OI	Sample and quality control (QC) identification										
		Are all field sample ID numbers cross-referenced to the I	laboratory ID numbers?	X								
		Are all laboratory ID numbers cross-referenced to the co	prresponding QC data?	X								
R3	OI	Test reports										
		Were all samples prepared and analyzed within holding t	times?	X								
		Other than those results < MQL, were all other raw value	s bracketed by calibration standards?	X			1					
		Were calculations checked by a peer or supervisor?		X			1					
		Were all analyte identifications checked by a peer or sup	pervisor?	X			1					
		Were sample detection limits reported for all analytes no		X								
		Were all results for soil and sediment samples reported of		X								
		Were % moisture (or solids) reported for all soil and sedir	· · ·			Х						
		Were bulk soils/solids samples for volatile analysis extract	•	1		X	1					
		If required for the project, are TICs reported?				X	<u> </u>					
R4	0	Surrogate recovery data		I			L	L				
K4		Were surrogates added prior to extraction?		X	1	1	1					
		Were surrogate percent recoveries in all samples within	the leberatory OC limits?	$\frac{1}{x}$				 				
DE					I	<u> </u>	I	L				
R5	OI	Test reports/summary forms for blank samples			1							
		Were appropriate type(s) of blanks analyzed?		X				 				
		Were blanks analyzed at the appropriate frequency?		X				 				
		Were method blanks taken through the entire analytical cleanup procedures?	process, including preparation and, if applicable,	X								
		Were blank concentrations < MQL?		Х								
R6	OI	Laboratory control samples (LCS):										
		Were all COCs included in the LCS?		X								
		Was each LCS taken through the entire analytical procee	dure, including prep and cleanup steps?	X								
		Were LCSs analyzed at the required frequency?		X								
		Were LCS (and LCSD, if applicable) %Rs within the labora	atory QC limits?	X								
		Does the detectability check sample data document the used to calculate the SDLs?	laboratory's capability to detect the COCs at the MDL	x								
		Was the LCSD RPD within QC limits?		X								
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data						L				
		Were the project/method specified analytes included in t	the MS and MSD2	T T	T	X	T T					
		Were MS/MSD analyzed at the appropriate frequency?				X		<u> </u>				
		Were MS (and MSD, if applicable) %Rs within the laborate	ony OC limits?			X		 				
		Were MS/MSD RPDs within laboratory QC limits?				X						
R8	OI	Analytical duplicate data		1		<u> </u>	1	L				
ко		Were appropriate analytical duplicates analyzed for each	a matrix?	1	1		1					
						X		<u> </u>				
		Were analytical duplicates analyzed at the appropriate fr		l —		X	I	 				
DC		Were RPDs or relative standard deviations within the lab			I	Х	L					
R9	OI	Method quantitation limits (MQLs):		L	1	1	r —					
		Are the MQLs for each method analyte included in the la		X				 				
		Do the MQLs correspond to the concentration of the low		X		ļ						
		Are unadjusted MQLs and DCSs included in the laborato	pry data package?	X	1	I						
R10	OI	Other problems/anomalies		-		1	-					
		Are all known problems/anomalies/special conditions no		X								
		Was applicable and available technology used to lower t the sample results?	the SDL to minimize the matrix interference effects on	x								
		Is the laboratory NELAC-accredited under the Texas Lab and methods associated with this laboratory data packag		x								
shoul 2. O 3. NA	d be r = orga A = No	ntified by the letter "R" must be included in the laboratory etained and made available upon request for the appropri nic analyses; I = inorganic analyses (and general chemistr t applicable; t reviewed;	data package submitted in the TRRP-required report(s).	Items i	dentifie	ed by the	e letter	"S"				

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

SDG: L1203835

Labo	orato	ry Name: Pace Analytical National	LRC Date: 04/06/2020 10:30									
Proj€	ect N	Jame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1203835-01, 02, 03, 04	l, 05, 06 ar	nd 07							
Revi	ewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1453220									
¥1	A ²	Description		Yes	No	NA ³	NR ⁴	ER# ⁵				
51	OI	Initial calibration (ICAL)										
		Were response factors and/or relative response fac	tors for each analyte within QC limits?			Х						
		Were percent RSDs or correlation coefficient criteri		X								
		Was the number of standards recommended in the	method used for all analytes?	Х								
		Were all points generated between the lowest and	highest standard used to calculate the curve?	Х								
		Are ICAL data available for all instruments used?	·	Х								
		Has the initial calibration curve been verified using	an appropriate second source standard?	Х								
2	OI	Initial and continuing calibration verification (ICCV a										
		Was the CCV analyzed at the method-required free		X	Γ		1	T				
		Were percent differences for each analyte within th		X				<u> </u>				
		Was the ICAL curve verified for each analyte?		Х				<u> </u>				
		Was the absolute value of the analyte concentration	n in the inorganic CCB < MDL?			X		<u> </u>				
3	0	Mass spectral tuning					1	<u> </u>				
<u> </u>	•	Was the appropriate compound for the method use	d for tuning?	The second secon	1	X	T	<u> </u>				
		Were ion abundance data within the method-requir				X		<u> </u>				
4	0	Internal standards (IS)				~		<u> </u>				
-	Ŭ	Were IS area counts and retention times within the	mathad required OC limits?	X	T	1	T T					
5	OI	Raw data (NELAC Section 5.5.10)		^			I	<u> </u>				
5		Were the raw data (for example, chromatograms, sp	X	T	T	1	<u> </u>					
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	X		+		┼──				
6	0	Were data associated with manual integrations flag Dual column confirmation		^			I	L				
0	0		and required QC2		1	X	1	T				
7	0	Did dual column confirmation results meet the meth					I	<u> </u>				
7	0	Tentatively identified compounds (TICs)	TIC data subject to ensure visto che alve?		1		1	1				
<u> </u>		If TICs were requested, were the mass spectra and	The data subject to appropriate checks?			X	I	L				
8		Interference Check Sample (ICS) results			T		r –	<u> </u>				
~		Were percent recoveries within method QC limits?				Х	I					
9	I	Serial dilutions, post digestion spikes, and method			1		1	T				
		Were percent differences, recoveries, and the linea	rity within the QC limits specified in the method?			Х						
510	OI	Method detection limit (MDL) studies			1	1	1					
		Was a MDL study performed for each reported ana	•	X								
		Is the MDL either adjusted or supported by the ana	lysis of DCSs?	Х								
11	OI	Proficiency test reports					-					
			e applicable proficiency tests or evaluation studies?	Х								
12	OI	Standards documentation			-		-					
		Are all standards used in the analyses NIST-traceat	ble or obtained from other appropriate sources?	X								
513	OI	Compound/analyte identification procedures										
		Are the procedures for compound/analyte identification	ation documented?	X								
14	OI	Demonstration of analyst competency (DOC)				-	-					
		Was DOC conducted consistent with NELAC Chapt	er 5?	Х								
		Is documentation of the analyst's competency up-to	p-date and on file?	Х								
15	OI	Verification/validation documentation for methods	NELAC Chapter 5)									
		Are all the methods used to generate the data doc	umented, verified, and validated, where applicable?	Х								
16	OI	Laboratory standard operating procedures (SOPs)										
		Are laboratory SOPs current and on file for each me	ethod performed	Х								
should 2. O = 3. NA	d be r = orga . = No	ntified by the letter "R" must be included in the labor etained and made available upon request for the app nic analyses; I = inorganic analyses (and general cho t applicable; t reviewed;		t(s). Items i	dentifi	ed by th	e letter	"S"				

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

PROJECT: 11209891

SDG: L1203835 DATE/TIME: 04/06/20 10:30

Laboratory Name: Pace Analytical National	LRC Date: 04/06/2020 10:30					
Project Name: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1203835-01, 02, 03, 04, 05, 06 and 07					
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1453220					
ER # ¹ Description						

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

Collected date/time: 03/25/20 10:30

SAMPLE RESULTS - 01

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 13:33	WG1453220	² ,	Тс
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 13:33	WG1453220		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 13:33	WG1453220	3	Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 13:33	WG1453220		03
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/31/2020 13:33	WG1453220	4	

SS
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

SDG: L1203835 DATE/TIME: 04/06/20 10:30

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Ср	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 13:55	WG1453220	Tc	
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 13:55	WG1453220		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 13:55	WG1453220	³ Ss	
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 13:55	WG1453220	53	
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/31/2020 13:55	WG1453220	4	

³ Ss
⁴Cn
-
⁵Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SDG: L1203835 DATE/TIME: 04/06/20 10:30

PAGE: 10 of 19

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— C
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 14:16	WG1453220	[² T
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 14:16	WG1453220	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 14:16	WG1453220	³ C
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 14:16	WG1453220	5
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		03/31/2020 14:16	WG1453220	4

³ Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] GI
⁹ Al
¹⁰ Sc

Released to Imaging: 01/11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209891

SDG: L1203835

DATE/TIME: 04/06/20 10:30 PAGE: 11 of 19

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 14:38	WG1453220
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 14:38	WG1453220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 14:38	WG1453220
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 14:38	WG1453220
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/31/2020 14:38	WG1453220

25
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
PAI
¹⁰ Sc

SDG: L1203835 DATE/TIME: 04/06/20 10:30

Volatile Organic Compounds (GC) by Method 8021B

		-							
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.000755		0.000190	0.000500	0.000500	1	03/31/2020 14:59	WG1453220	Tc
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 14:59	WG1453220	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 14:59	WG1453220	³ Cc
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 14:59	WG1453220	55
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/31/2020 14:59	WG1453220	4 () p

3
³ Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁸ Gl
⁸ GI ⁹ Al
GI

Released to Imaging: 01/11/2022 3:45:07 PM Plains All American, LP - GHD SDG: L1203835

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PAGE: 13 of 19

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 15:21	WG1453220	Tc
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 15:21	WG1453220	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 15:21	WG1453220	³ Sc
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 15:21	WG1453220	53
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/31/2020 15:21	WG1453220	4

0.0
⁴ Cn
⁵Tr
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⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

SDG: L1203835 DATE/TIME: 04/06/20 10:30

PAGE: 14 of 19

Volatile Organic Compounds (GC) by Method 8021B

-									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	03/31/2020 15:42	WG1453220	Tc
Toluene	U		0.000412	0.00100	0.00100	1	03/31/2020 15:42	WG1453220	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/31/2020 15:42	WG1453220	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	03/31/2020 15:42	WG1453220	53
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		03/31/2020 15:42	WG1453220	4

³Ss
⁴Cn
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[°] Gl
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¹⁰ Sc

SDG: L1203835 DATE/TIME: 04/06/20 10:30

PAGE: 15 of 19 Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY L1203835-01,02,03,04,05,06,07

Method Blank (MB)

(MB) R3515575-3 03/31/	20 11:07			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	101			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3515575-1 03/31/20 09:26

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0449	89.8	77.0-122	
Toluene	0.0500	0.0474	94.8	80.0-121	
Ethylbenzene	0.0500	0.0503	101	80.0-123	
Total Xylene	0.150	0.143	95.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			101	79.0-125	

SDG: L1203835

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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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1203835 DATE/TIME: 04/06/20 10:30

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky ¹⁶	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Dhio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Гехаs	T104704245-18-15
「exas ⁵	LAB0152
Jtah	TN00003
/ermont	VT2006
/irginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	Δ2Ι Δ

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891

SDG: L1203835

DATE/TIME: 04/06/20 10:30

Τс Ss Cn Tr Sr Qc GI AI Śc

Received by OCD: 4/5/202	1 1:40:32 PM	Ι	Billing Info	ormation:				Analysis / Con	tainer / Preservative		Chain of Custody	Page 111 of 2
GHD Services 2135 S. Loop 250 W. Midland, Texas 79703	3		#10 De Suite 5	All America sta Drive 50E d, Texas 79		Pres Chk					Pace National Co	Analytical [®] inter for Testing & Innovation
Report to: Becky Haskell			Email To: becky.h	askell@gh	d.com	1					12065 Lebanon Rd Mount Juliet, TN 37	122
Project Description: Plains Darr 2	SES-L	F 1999			and and an Maria						Phone: 615-758-58 Phone: 800-767-58 Fax: 615-758-5859	
Phone: 432-686-0086 Fax: 432-686-0186	Client Proje			Lab Project #							L# 120 3 D115	835
Collected by (print): Ryan Livingston	Site/Facility	y ID #		P.O. #							Acctnum:	
Collected by (signature):	Same	Lab MUST Be	Day	Quote #			18				Template: Prelogin:	
Immediately Packed on Ice N	Two I	1 20	y (Rad Only) ay (Rad Only)	Date f	Results Needed	No. of	BTEX 8021B				TSR: PB:	
Sample ID	Comp/Gra	b Matrix *	Depth	Date	Time	Cntrs	BTE				Shipped Via: Remarks	Sample # (lab only
mw-13	Grab	GW		3-25-20) 1030	3	×					-4
mw-бr	Grab	GW		3-25-20	0 1040	3	×					-02
omw-7r	Grab	GW		3-25-20) 1115	3	×					-23
mw-8r	Grab	GW		3-25-20	1130	3	×					Ley
omw-3r	Grab	GW		3-25-20	1235	3	×					-05
nw-10r	Grab	GW		3-25-20	1245	3	×					-06
nw-9r	Grab	GW		3-25-20	1320	3	×					-07
					1.000							
Matrix: S - Soil AIR - Air F - Filter W - Groundwater B - Bioassay /W - WasteWater	Remarks:				RAD SCREE	N: <0.	5 mR/hr	рН	Temp	COC Seal COC Sign Bottles	ample Receipt C Present/Intact med/Accurate: arrive intact:	
W - Drinking Water T - Other	Samples retu UPSF	urned via: FedExCour	rier	_	Tracking #	5		Flow	Other	Sufficie	bottles used: ent volume sent: <u>If Applica</u> l	
elinquished by : (Signature)		Date: 3-27	20	ime: 2:00	Baceived by: (Signa	ature)	~	Trip Blank Re TDA?	ceived: Yes / No HCL / MeoH TBR		Headspace: ation Correct/Ch	ecked: Y
elinquished br.: (Signature)		Bate: S-27-	20	ime:	Beceived by: (Signa	iture)	2	Temp: 4.2 0.5 2 0.1	°C Bottles Received:	If preserva	ation required by Lo	gin: Date/Time
elinquished by : (Signature) Released to Imagino: 1/11/	/2022 3:45:0	Date:	Ti	ime:	Received for Jab by	: (Signat	uret	Date:	Time:	Hold:		Condition: NCF /- OK

Tures.

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: L1221929 05/23/2020 11209891/02 Plains Darr 2 SRS-LF 1999-62

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.

Released to Imaging: 1/11/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891/02

SDG: L1221929 DATE/TIME: 06/02/20 18:57

//E: |8:57 PAGE: 1 of 31

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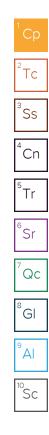
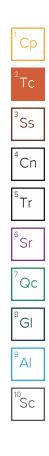


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SDG: L1221929

DATE/TIME: 06/02/20 18:57

PAGE: 2 of 31 Received by OCD: 4/5/2021 1:40:32 PM

SAMPLE SUMMARY

ONE LAB. NAPagev114 of 201

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v	SAMPLES	501011	MANT		0.12	s in o theo
MW-4R L1221929-01 GW			Collected by Heath Boyd	Collected date/time 05/18/20 16:55	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B Volatile Organic Compounds (GC) by Method 8021B	WG1484651 WG1485346	1 1	05/30/20 16:50 06/01/20 17:04	05/30/20 16:50 06/01/20 17:04	BMB BMB	Mt. Juliet, TN Mt. Juliet, TN
MW-6R L1221929-02 GW			Collected by Heath Boyd	Collected date/time 05/18/20 16:40	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484651	1	05/30/20 17:11	05/30/20 17:11	BMB	Mt. Juliet, TN
MW-7R L1221929-03 GW			Collected by Heath Boyd	Collected date/time 05/18/20 17:00	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484651	1	05/30/20 17:32	05/30/20 17:32	BMB	Mt. Juliet, TN
MW-8R L1221929-04 GW			Collected by Heath Boyd	Collected date/time 05/18/20 17:20	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484651	1	05/30/20 17:52	05/30/20 17:52	BMB	Mt. Juliet, TN
MW-9R L1221929-05 GW			Collected by Heath Boyd	Collected date/time 05/18/20 16:15	Received date/time 05/23/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484651	1	05/30/20 18:13	05/30/20 18:13	BMB	Mt. Juliet, TN
MW-10R L1221929-06 GW			Collected by Heath Boyd	Collected date/time 05/18/20 16:35	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484651	1	05/30/20 18:33	05/30/20 18:33	BMB	Mt. Juliet, TN
MW-13 L1221929-07 GW			Collected by Heath Boyd	Collected date/time 05/18/20 16:20	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 15:26	05/30/20 15:26	DWR	Mt. Juliet, TN
MW-3R L1221929-08 GW			Collected by Heath Boyd	Collected date/time 05/18/20 17:45	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 15:48	05/30/20 15:48	DWR	Mt. Juliet, TN

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Received by OCD: 4/5/2021 1:40:32 PM

SAMPLE SUMMARY

ONE LAB. NAPagev115 of 201

Ср

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Qc

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¹⁰Sc

			Collected by	Collected date/time		
MW-12 L1221929-09 GW			Heath Boyd	05/18/20 17:25	05/23/20 08	3:45
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 16:10	05/30/20 16:10	DWR	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
RW-11 L1221929-10 GW			Heath Boyd	05/18/20 17:50	05/23/20 08	3:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484957	1	05/31/20 16:06	05/31/20 16:06	JHH	Mt. Juliet, TN
RW-12 L1221929-11 GW			Collected by Heath Boyd	Collected date/time 05/18/20 18:10	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 16:32	05/30/20 16:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1484957	20	05/31/20 16:27	05/31/20 16:27	JHH	Mt. Juliet, TN
DUP-1 L1221929-12 GW			Collected by Heath Boyd	Collected date/time 05/18/20 00:00	Received da 05/23/20 08	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 16:54	05/30/20 16:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1484957	1	05/31/20 16:49	05/31/20 16:49	JHH	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
DUP-2 L1221929-13 GW			Heath Boyd	05/18/20 00:00	05/23/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1484722	1	05/30/20 17:17	05/30/20 17:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1484957	20	05/31/20 17:11	05/31/20 17:11	JHH	Mt. Juliet, TN

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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.

h

Mark W. Beasley Project Manager

Released to Imaging: 04/11/2022 3:45:07 PM Plains All American, LP - GHD

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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

Labo	orato	ry Name: Pace Analytical National	LRC Date: 06/02/2020 18:57								
Proj	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1221929-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13								
Revi	iewei	r Name: Mark W. Beasley	Prep Batch Number(s): WG1484722, WG1484957, WG1	148465	1 and V	WG148	5346				
# ¹	A ²	Description		Yes	No	NA ³	NR⁴	ER# ⁵			
R1	OI	Chain-of-custody (C-O-C)									
		Did samples meet the laboratory's standard conditions	of sample acceptability upon receipt?	X			ſ				
		Were all departures from standard conditions describe	d in an exception report?			Х	1				
R2	01	Sample and quality control (QC) identification				1	•	1			
		Are all field sample ID numbers cross-referenced to the	a laboratory ID numbers?	X	l –		T				
		Are all laboratory ID numbers cross-referenced to the		X			<u> </u>				
R3	0	Test reports				1	<u> </u>	1			
1.5		Were all samples prepared and analyzed within holding	a times?	X		T	T T	1			
			-		X			1			
		Other than those results < MQL, were all other raw valu	les bracketed by calibration standards?		- ^			<u> </u>			
		Were calculations checked by a peer or supervisor?		X			 	<u> </u>			
		Were all analyte identifications checked by a peer or su	•	X			ļ	<u> </u>			
		Were sample detection limits reported for all analytes r		X							
		Were all results for soil and sediment samples reported	l on a dry weight basis?	Х							
		Were % moisture (or solids) reported for all soil and sec	liment samples?			Х					
		Were bulk soils/solids samples for volatile analysis extr	acted with methanol per SW846 Method 5035?			Х					
		If required for the project, are TICs reported?				Х					
R4	0	Surrogate recovery data									
		Were surrogates added prior to extraction?		X							
		Were surrogate percent recoveries in all samples within	X								
R5	01	Test reports/summary forms for blank samples	,	•		1	•				
	Ο.	Were appropriate type(s) of blanks analyzed?		X	[Τ	1	1			
		Were blanks analyzed at the appropriate frequency?		X	<u> </u>		<u> </u>				
		Were method blanks taken through the entire analytica	I process including proparation and if applicable								
		cleanup procedures?	i process, including preparation and, il applicable,	X							
		Were blank concentrations < MQL?	Х				1				
R6	OI	Laboratory control samples (LCS):									
		Were all COCs included in the LCS?		X							
		Was each LCS taken through the entire analytical proc	edure, including prep and cleanup steps?	X							
		Were LCSs analyzed at the required frequency?		Х							
		Were LCS (and LCSD, if applicable) %Rs within the labo	pratory QC limits?	Х							
			e 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	3								
		Were the project/method specified analytes included in	n the MS and MSD?	X	I		Ι	1			
		Were MS/MSD analyzed at the appropriate frequency?		Х			1	1			
		Were MS (and MSD, if applicable) %Rs within the labora		Х			1				
		Were MS/MSD RPDs within laboratory QC limits?		X							
R8	01	Analytical duplicate data				1		1			
1.0		Were appropriate analytical duplicates analyzed for ea	ch matrix?		<u> </u>	X	1				
		Were analytical duplicates analyzed to early were analytical duplicates analyzed to early				X					
						X					
DO		Were RPDs or relative standard deviations within the la				<u> </u>		L			
R9	OI	Method quantitation limits (MQLs):				1	<u> </u>	1			
		Are the MQLs for each method analyte included in the		X				<u> </u>			
		Do the MQLs correspond to the concentration of the lo		X	I		 	┫────			
		Are unadjusted MQLs and DCSs included in the labora	tory data package?	Х							
R10	OI	Other problems/anomalies			1		1				
		Are all known problems/anomalies/special conditions r	noted in this LRC and ER?	Х	<u> </u>						
			r the SDL to minimize the matrix interference effects on	x							
		the sample results?						┨─────			
		and methods associated with this laboratory data pack	boratory Accreditation Program for the analytes, matrices age?	X							
1. Iter	ns ide	· · ·	ry data package submitted in the TRRP-required report(s).	Items i	dentifi¢	d by th	e letter	"S"			
shoul	d be re	etained and made available upon request for the approp	priate retention period.		- critine	sa sy ui	e letter	2			
		nic analyses; I = inorganic analyses (and general chemis	stry, when applicable);								
		t applicable; t reviewed:									

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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Labo	orato	ory Name: Pace Analytical National	LRC Date: 06/02/2020 18:57							
Proj	ect N	Name: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1221929-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13							
Revi	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1484722, WG1484957, WG	614846	51 and \	NG1485	5346			
‡1	A ²	Description		Yes	No	NA ³	NR ⁴	ER#		
1	OI	Initial calibration (ICAL)		_		-				
		Were response factors and/or relative response factors and/or relative response factors and/or relative response factors and the response factors	actors for each analyte within QC limits?			Х				
		Were percent RSDs or correlation coefficient crite	eria met?	X						
		Was the number of standards recommended in th	e method used for all analytes?	X						
		Were all points generated between the lowest an	d 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	g an appropriate second source standard?	Х						
2	OI	Initial and continuing calibration verification (ICCV	and CCV) and continuing calibration blank (CCB):							
		Was the CCV analyzed at the method-required free	equency?	X						
		Were percent differences for each analyte within	the method-required QC limits?	Х						
		Was the ICAL curve verified for each analyte?		X						
		Was the absolute value of the analyte concentrati	on in the inorganic CCB < MDL?			Х				
3	0	Mass spectral tuning								
		Was the appropriate compound for the method us	sed for tuning?			Х				
		Were ion abundance data within the method-requ	uired QC limits?			Х				
4	0	Internal standards (IS)								
		Were IS area counts and retention times within th	e method-required QC limits?	X						
5	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 fla	agged on the raw data?	X						
6	0	Dual column confirmation		•			•			
		Did dual column confirmation results meet the me	ethod-required QC?	Т	Т	Х		Τ		
7	0	Tentatively identified compounds (TICs)		•		•				
		If TICs were requested, were the mass spectra an	d TIC data subject to appropriate checks?			Х		Γ		
8	1	Interference Check Sample (ICS) results		•				·		
		Were percent recoveries within method QC limits	?	T		Х	I			
9	1	Serial dilutions, post digestion spikes, and method	d of standard additions	•			•			
		Were percent differences, recoveries, and the line	earity within the QC limits specified in the method?	Т	Т	Х		Τ		
10	OI	Method detection limit (MDL) studies						-		
		Was a MDL study performed for each reported an	alyte?	X				Τ		
		Is the MDL either adjusted or supported by the an		X						
11	OI	Proficiency test reports								
		Was the laboratory's performance acceptable on	the applicable proficiency tests or evaluation studies?	X				Τ		
12	OI	Standards documentation		-		•				
		Are all standards used in the analyses NIST-trace	able or obtained from other appropriate sources?	X	1		1	Τ		
13	OI	Compound/analyte identification procedures				•				
		Are the procedures for compound/analyte identifi	cation documented?	X	Т			Τ		
14	OI	Demonstration of analyst competency (DOC)		•		•				
		Was DOC conducted consistent with NELAC Chap	pter 5?	X				Γ		
		Is documentation of the analyst's competency up	-to-date and on file?	X						
15	OI	Verification/validation documentation for methods								
			cumented, verified, and validated, where applicable?	X				T		
16	01	Laboratory standard operating procedures (SOPs)			•		•	-		
_		Are laboratory SOPs current and on file for each r		Тх	T		1	Τ		
houl . O . NA	d be r = orga \ = No		oratory data package submitted in the TRRP-required report(s) ppropriate retention period.	. Items	identifie	d by th	e letter	"S"		

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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Laborate	ory Name: Pace Analytical National	LRC Date: 06/02/2020 18:57					
Project	Name: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1221929-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13					
Reviewe	er Name: Mark W. Beasley	Prep Batch Number(s): WG1484722, WG1484957, WG1484651 and WG1485346					
ER # ¹	Description						
1	8021B WG1484651 R3533751-4 and 5: The a instrument established by the initial calibrat	8021B WG1484651 R3533751-4 and 5: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).					

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).

Collected date/time: 05/18/20 16:55

SAMPLE RESULTS - 01

Volatile Organic Compounds (GC) by Method 8021B

	2
WG1485346	Tc
WG1484651	
WG1484651	³ Ss
WG1484651	55
WG1484651	4
WG1485346	Cn
	WG1484651

SDG: L1221929

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DATE/TIME: 06/02/20 18:57

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SAMPLE RESULTS - 02

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 17:11	WG1484651	Tc
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 17:11	WG1484651	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 17:11	WG1484651	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 17:11	WG1484651	55
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		05/30/2020 17:11	WG1484651	4

Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
-
°GI
PAI
¹⁰ Sc

SDG: L1221929

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SAMPLE RESULTS - 03

Volatile Organic Compounds (GC) by Method 8021B

5	× *	/ /							L' Cr
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 17:32	WG1484651	Tc
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 17:32	WG1484651	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 17:32	WG1484651	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 17:32	WG1484651	53
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		05/30/2020 17:32	WG1484651	4

Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SDG: L1221929

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SAMPLE RESULTS - 04

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 17:52	WG1484651	Tc
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 17:52	WG1484651	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 17:52	WG1484651	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 17:52	WG1484651	53
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/30/2020 17:52	WG1484651	4

SS
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] GI
⁹ Al
¹⁰ Sc

SDG: L1221929

Collected date/time: 05/18/20 16:15

SAMPLE RESULTS - 05

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 18:13	WG1484651	
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 18:13	WG1484651	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 18:13	WG1484651	
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 18:13	WG1484651	
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		05/30/2020 18:13	<u>WG1484651</u>	



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SAMPLE RESULTS - 06

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 18:33	WG1484651
Foluene	U		0.000412	0.00100	0.00100	1	05/30/2020 18:33	WG1484651
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 18:33	WG1484651
otal Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 18:33	WG1484651
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		05/30/2020 18:33	WG1484651



SDG: L1221929 DATE/TIME: 06/02/20 18:57

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SAMPLE RESULTS - 07 L1221929

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Ср	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 15:26	WG1484722	Tc	
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 15:26	WG1484722		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 15:26	WG1484722	³ Ss	
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 15:26	WG1484722	55	
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/30/2020 15:26	WG1484722	4	

Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] GI
⁹ Al
¹⁰ Sc

SDG: L1221929

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SAMPLE RESULTS - 08

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	(Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time			
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 15:48	WG1484722	1	Гс
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 15:48	WG1484722		-
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 15:48	WG1484722	³ c	Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 15:48	WG1484722	`	23
(S) a,a,a-Trifluorotoluene(PID)	99.2				79.0-125		05/30/2020 15:48	WG1484722	4	<u></u>



SDG: L1221929

G: 1929 DATE/TIME: 06/02/20 18:57

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SAMPLE RESULTS - 09

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	05/30/2020 16:10	WG1484722	Tc
Toluene	U		0.000412	0.00100	0.00100	1	05/30/2020 16:10	WG1484722	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 16:10	WG1484722	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 16:10	WG1484722	53
(S) a,a,a-Trifluorotoluene(PID)	100				79.0-125		05/30/2020 16:10	WG1484722	4



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SAMPLE RESULTS - 10

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.0609		0.000190	0.000500	0.000500	1	05/31/2020 16:06	WG1484957	Tc
Toluene	0.00338		0.000412	0.00100	0.00100	1	05/31/2020 16:06	WG1484957	
Ethylbenzene	0.0168		0.000160	0.000500	0.000500	1	05/31/2020 16:06	WG1484957	³ Ss
Total Xylene	0.0651		0.000510	0.00150	0.00150	1	05/31/2020 16:06	WG1484957	55
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		05/31/2020 16:06	WG1484957	4

SS
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
PAI
¹⁰ Sc

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SAMPLE RESULTS - 11

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.987		0.00380	0.000500	0.0100	20	05/31/2020 16:27	WG1484957
Foluene	0.0380		0.000412	0.00100	0.00100	1	05/30/2020 16:32	WG1484722
Ethylbenzene	0.0655		0.000160	0.000500	0.000500	1	05/30/2020 16:32	WG1484722
otal Xylene	0.173		0.000510	0.00150	0.00150	1	05/30/2020 16:32	WG1484722
(S) a,a,a-Trifluorotoluene(PID)	106				79.0-125		05/30/2020 16:32	WG1484722
(S) a,a,a-Trifluorotoluene(PID)	99.9				79.0-125		05/31/2020 16:27	WG1484957

SDG: L1221929

G: 929 DATE/TIME: 06/02/20 18:57 PAGE: 20 of 31 Collected date/time: 05/18/20 00:00

SAMPLE RESULTS - 12 L1221929

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/31/2020 16:49	WG1484957
Foluene	U		0.000412	0.00100	0.00100	1	05/30/2020 16:54	WG1484722
thylbenzene	U		0.000160	0.000500	0.000500	1	05/30/2020 16:54	WG1484722
otal Xylene	U		0.000510	0.00150	0.00150	1	05/30/2020 16:54	WG1484722
(S) a,a,a-Trifluorotoluene(PID)	100				79.0-125		05/30/2020 16:54	WG1484722
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		05/31/2020 16:49	WG1484957

[≁] Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SDG: L1221929

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SAMPLE RESULTS - 13

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.924		0.00380	0.000500	0.0100	20	05/31/2020 17:11	WG1484957	Τι
Toluene	0.0360		0.000412	0.00100	0.00100	1	05/30/2020 17:17	WG1484722	
Ethylbenzene	0.0651		0.000160	0.000500	0.000500	1	05/30/2020 17:17	WG1484722	³ S
Total Xylene	0.170		0.000510	0.00150	0.00150	1	05/30/2020 17:17	WG1484722	5
(S) a,a,a-Trifluorotoluene(PID)	106				79.0-125		05/30/2020 17:17	WG1484722	4
(S) a,a,a-Trifluorotoluene(PID)	99.9				79.0-125		05/31/2020 17:11	WG1484957	C

Ϋ́Γr

Qc

GI

SDG: L1221929 DATE/TIME: 06/02/20 18:57

Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY

ONE LAB. NARagev134 of 261

Method Blank (MB)

(MB) R3533751-3 05/30	0/20 13:23			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	104			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3533751-1 05/30/20 12:21

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0500	100	77.0-122	
Toluene	0.0500	0.0479	95.8	80.0-121	
Ethylbenzene	0.0500	0.0450	90.0	80.0-123	
Total Xylene	0.150	0.135	90.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			97.7	79.0-125	

L1221939-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221939-01 05/30/20 18:54 • (MS) R3533751-4 05/30/20 20:37 • (MSD) R3533751-5 05/30/20 20:58												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	0.327	0.358	0.356	62.0	58.0	1	10.0-160	E	E	0.560	21
Toluene	0.0500	0.0501	0.100	0.101	99.8	102	1	12.0-148			0.995	21
Ethylbenzene	0.0500	0.0527	0.100	0.0951	94.6	84.8	1	22.0-149			5.02	21
Total Xylene	0.150	0.528	0.618	0.611	60.0	55.3	1	13.0-155			1.14	21
(S) a,a,a-Trifluorotoluene(PID)					107	103		79.0-125				

SDG: L1221929 DATE/TIME: 06/02/20 18:57

Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY

ONE LAB. NAPagev135 of 261

Method Blank (MB)

(MB) R3533470-2 05/30	/20 14:39			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	97.5			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3533470-1 05/30/20 13:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0468	93.6	77.0-122	
Toluene	0.0500	0.0429	85.8	80.0-121	
Ethylbenzene	0.0500	0.0446	89.2	80.0-123	
Total Xylene	0.150	0.138	92.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			99.1	79.0-125	

L1221929-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221929-07 05/30/	(OS) L1221929-07 05/30/20 15:26 • (MS) R3533470-3 05/30/20 23:14 • (MSD) R3533470-4 05/30/20 23:37												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits	
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%	
Benzene	0.0500	U	0.0407	0.0441	81.4	88.2	1	10.0-160			8.02	21	
Toluene	0.0500	U	0.0378	0.0405	75.6	81.0	1	12.0-148			6.90	21	
Ethylbenzene	0.0500	U	0.0397	0.0420	79.4	84.0	1	22.0-149			5.63	21	
Total Xylene	0.150	U	0.122	0.129	81.3	86.0	1	13.0-155			5.58	21	
(S) a,a,a-Trifluorotoluene(PID)					100	100		79.0-125					

SDG: L1221929 DATE/TIME: 06/02/20 18:57 Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY

Ср

Τс

Ss

Cn

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Method Blank (MB)

(MB) R3533650-3 05/31/	20 15:12			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	100			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3533650-1 05/31/20 13:53

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0516	103	77.0-122	
Toluene	0.0500	0.0528	106	80.0-121	
Ethylbenzene	0.0500	0.0549	110	80.0-123	
Total Xylene	0.150	0.167	111	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			100	79.0-125	

SDG: L1221929 DATE/TIME: 06/02/20 18:57 PAGE: 25 of 31

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Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY

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Method Blank (MB)

	9				1 Cn
(MB) R3533851-3 06/01/2	20 13:02				Ср
	MB Result	MB Qualifier	MB MDL	MB RDL	2
Analyte	mg/l		mg/l	mg/l	Tc
Benzene	U		0.000190	0.000500	
(S) a,a,a-Trifluorotoluene(PID)	101			79.0-125	^³ Ss

Laboratory Control Sample (LCS)

(LCS) R3533851-1 06/01/2	20 11:24				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0516	103	77.0-122	
(S) a.a.a.Trifluorotoluene(PID)			100	79.0-125	

²Tc ³Ss °Cn ٢r Sr Qc G ΆΙ Sc

SDG: L1221929 DATE/TIME: 06/02/20 18:57 PAGE: 26 of 31

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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

MQL Method Quantitation Limit. RDL Reported Detection Limit. Rec. Recovery. RPD Relative Percent Difference. SDG Sample Detection Limit. SSI Sample Detection Limit. SSI Sample Detection Limit. SI Sample Detection Limit. SI Sample Detection Limit. U Not detected at the Sample Detection Limit. U Not detected at the Sample Detection Limit. Uanalyse The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. Dilution Links ample matrix contains an interfering material, the sample are higher than the highest limit of concentration that the sample matrix contains on interfering material. Dilution Links are the traget & recovery ranges or & difference value that the laboratory has historically determined as normal for the method and analyse being reported Soc Sample analysis. If a value different than is used in this field, the reported has alreget by being reported Soc Sample analysis will target all analysis recovery or analysis the sample are balled within the reported Soc. Oniginal Sample The non-piked sample target or the sample may be diluted for analysis. If a value different than is used in the report ranget or ball determine the Relative Percent Difference (RPD) from a quality control sample attern and/or number designation that		
RDL Reported Detection Limit. Rec. Recovery. Rec. Recovery. RDD Relative Percent Difference. SDG Sample Detection Limit. SDL Sample Detection Limit. SQL Sample Detection Limit. UM Not detected at the Sample Detection Limit. UM Not detected at the Sample Detection Limit. Unadj. MOL Unadjusted Method Quantitation Limit. Analytie 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 reparation volume or weight values differ from the standard. or if concentrations of analytes in the sample are higher than the highest limit or contration 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 of Sufference value that the laboratory has histoincity determined as normal for the method and analysis being reported Successful CO Sample analysis. If a value difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDE. Original Sample The non-spiked sample there and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided SDE.	MDL	
Rec. Recovery. RPD Relative Percent Difference. SDG Sample Delivery (roup. SDL Sample Detection Limit. (S) Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Synke/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. MOL 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 higher than the isonically determined as normal for the method and analyte being reported. Successful OC Sample analysis, will target all analytes recovered or duplicated within these rences. Original Sample The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The original Sample may novides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualiter for a specific analyte, the result in the Column may sate "ND" (Not Detected) or "SDL" (Relatorhemistry) Coulifier The column proxides a letter and/or number designation that corr	MQL	
RPD Relative Percent Difference. SDG Sample Delivery Group. SDL Sample Delection limit. (S) Marriso Spike/Duplication and the sample address address address and the very blank, sample, Laboratory Control Sample/Duplicate and detected in all environmental media. U Not detected in all environmental media. U Not detected at the Sample Detecton 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 standards, on if concentrations of analysis 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. Links The sample marker baing the sample may be diluted for analysis. If a value difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. Qualifier The non-spiked sample in the prep batch used to determine the Relative apple and potentially a discussion of possible implications of the Qualifier is provided within the discussion of possible implications of the Qualifier is provided within the reported SDG. Qualifier The column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Quali	RDL	Reported Detection Limit.
SDG Sample Deletivery Group. SDL Sample Deletion Limit. Surgate Gurogate 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. U Not detected at the Sample Detection Limit. U Not detected at the Sample Detection Limit. Unadjusted Method Quantitation Limit. If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analysis performed. Some Analyses and Methods will have multiple analyses reported. Dilution If the sample matrix contains an interfering material. The sample matrix contains an interfering material. Units These are the target S recovery range 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 renoves or % difference value that the laboratory as accurate the sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample in the result is present, a detail in a file or hour sample and potentially a discussion of possible implications of the Qualifier is provided within the reported SDG. Qualifier The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) f	Rec.	Recovery.
SDL Sample Detection Limit. (S) Matrix SplexDuplicate standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix SplexDuplicate used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in the Sample Detection Limit. U Not detected at the Sample Detection Limit. Unadjusted Method Quantitation Limit. The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. Dilution standard, or if concentrations of analytes in the sample preparation volume or weight values different the taboratory 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 embod and analyte being prototid. Successful QC Sample analysis will farget all analytes recovered or duplicated within these ranges. Original Sample The ronsplied Sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Gualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible in the preps that unambe designation that corresponds to additional information concerning the result reported. If Qualifier is present, a definition per Qualifier is provided within the Case Narrative if applicable. Qualifier The actual analytical efficience value besent the couler t	RPD	Relative Percent Difference.
Surrogate (surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Splex/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. MOL 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 elluted for analysis. If a value different than it is used in this field, the result reported has already been corrected for this factor. Unints These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. Original Sample The non-spliked sample in the greep batch used to determine the Relative Percent Difference (RPD) from a quality control application of possible implications of the Qualifier in the Case Narrative in Splicabil. Qualifier The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result or the Case Narrative in the Case Narative in Splicabil.	SDG	Sample Delivery Group.
(S) 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 are higher near walue different than 1 is used in this field, the result reported has already been corrected for this factor. Units The same the target X recovery ranges or % difference value that the laboratory has historically determined as anomal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. Original Sample The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDE. Qualifier The actual analytical inal 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" (ND Detected) or TBDL" (Below Detectable Leveis). The information in the results column should alaways be accompanied by eithere an MDL (Method Detecta	SDL	Sample Detection Limit.
Unadj. MOL Unadjusted Method Quantitation Limit. Analyte The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyses perfed. 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 is field, the result reported has already been corrected for this factor. These are the target's recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. Original Sample The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. Qualifier 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" (ND Edected of "NDL" (Below Detectable). Result 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 being value that field or hay sample specific characteristics) reported. The seanalyses are not seefin analyte. <	(S)	Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be
Analyte The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyses reported. Dilution Ibiotaction of 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 The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported Site analysis will target all analytes recovered or duplicated within these ranges. Qualifier Definitions page and point of a counter of a control of the outfiller in the Case Narrative if applicates. Result The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result neture for a specific analyte, the result in this column may state: ND' (Not Detected) or IBDL' (Redotchemistry) Confidence level of 2 sigma. 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 being performed. Succession of any dany dany samples and analytical frace will be a section in the Case Narrative of applicated will be a section in the Case Narrative of applicates. Case Narrative (Cn) A brief discussion about	U	Not detected at the Sample Detection Limit.
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times of preparation and/or analysis.	Sample Results (Sr)	by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for
Qualifier Description	Sample Summary (Ss)	
Qualifier Description		
	Qualifier	Description

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calibration (ICAL).

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial

PROJECT: 11209891/02

SDG: L1221929

DATE/TIME: 06/02/20 18:57

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
ldaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky ¹⁶	90010
Kentucky ²	16
Louisiana	Al30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Dhio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Гехаs	T104704245-18-15
「exas ⁵	LAB0152
Jtah	TN00003
/ermont	VT2006
/irginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	Δ2Ι Δ

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891/02

SDG: L1221929

DATE/TIME: 06/02/20 18:57

reived by OCD: 4/5/2021 1	:40:32 PM		Billing Infor	mation:				Analysis / Container / Preservative Chain of Custody Prage 140
Plains All American, 2135 S Loop 250 W Widland, TX 79703	LP - GHD			Bryant Dr., Ste. 550E , TX 79705		Pres Chk		National Canter for Tasting & Inno
eport to: ecky Haskell			Email To: becky.hask	ell@ghd.com;gle	nn.quinney@	ghd.co		12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858
roject Description: Plains Darr 2 SRS-LF 1999-62		City/State [New M	ton	Please Ci PT MT C	ircle:		Phone: 800-767-5859 Fax: 615-758-5859
none: 432-250-7917	Client Project 11209891,	t #	NEW M	Lab Project # PLAINSGHD				sDG# L122(929 F161
Heath Boyd	Site/Facility I	D #		P.O. #		1 and a second	CI	Acctnum: PLAINSGHD Template: T167386
nmediately acked on Ice N Y	Same I		Day	Quote # Date Resul	ts Needed	No. of	40mlAmb-HC	Prelogin: P774142 PM: 134 - Mark W. Beasley PB: 76 5-15-20 Shipped Via: FedEX Groun
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTEX	Remarks Sample # (lab o
MW-4R	Grab	GW	DTW	5/18/20	1655	3	X	-0
MW-6R		GW	1	1	1640	1	×	0
MW-7R		GW			1700	>	X	D
mw-8R		GW			1720		×	01
mw-9R		GW			1615		×	0
MW- LOR		GW			1635		×	0
MW-13*		GW			1620		X	0
MW-3R		GW			1745	12	×	0
MW-12	1. 1. 1.	GW			1725	3	X	0
RW-11	V	GW	V	V	1750	V	X	
Matrix: 5 - Soil AIR - Air F - Filter W - Groundwater B - Bioassay /W - WasteWater W - Drinking Water	Remarks: Samples returne			Trac	king # 1-		6300	pH Temp Sample Receipt Checklist Flow Other COC Signed/Accurate: Bottles arrive intact: A Correct bottles used: Sufficient volume sent: Sufficient volume sent: A VA Zero Readspace: Y
T - Other elinquished by : (Signature)	UPS FedE		Time		ived by: (Signa	and the owner where the party of the party o	0 100	Trip Blank Received: Yes/No HCL/MeoH
elinquished by : (Signature)	territoria acta a statistica acta a	Date:	Time		ived by: (Signa	ature)		Temp: W44 °C Bottles Received: 7.240-7.7 79 If preservation required by Login: Date/Time
Relinquished by : (Signature)		Date:	Tim	e: Rece	ived for lab by	(: (Signa	ture)	Date: Time: Hold: Condition 5-27me 0895 NCF / 0

ceived by OCD: 4/5/2021 1:4	0:32 PM		Billing Info	rmation:		T			Analysis /	Contain	er / Prese	rvative	-	Chain of Custody	Page_141_of
Plains All American, LP	- GHD			Dr., Ste. 55	50E	Pres Chk				Ter	14			Race	Analytical*
2135 S Loop 250 W Midland, TX 79703			Midland	, TX 79705											
Report to: Becky Haskell			1		glenn.quinney@	1.1.1								12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58 Phone: 800-767-58	8
Project Description: Plains Darr 2 SRS-LF 1999-62		City/State Collected:	New n	ton, repico	Please C PT	Circle: CT ET								Fax: 615-758-5859	
Phone: 432-250-7917	Client Project			Lab Project	# 1D-11209891					No.				SDG #	1221929
Collected by (print):	Site/Facility I	D #		P.O. #		F	CI							Acctnum: PLA	
Heath Boyd Collected by (signature):	Same D	Lab MUST Be	Day	Quote #		14	40mlAmb-HCl							Template: T16 Prelogin: P77 PM: 134 - Mar	4142
Immediately Packed on Ice N Y	Next D Two Da Three D		iy (Rad Only) Day (Rad Only)	Date R	esults Needed	No. of	(40ml)							PB: 76 .	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTEX						-	Remarks	Sample # (lab only)
RW-12	Grado	GW	istm	5/18/	20 1810	3	X							-	- 11
Dup-1 Dup-2		GW			-	11	×								12
Dup-2	1	GW	+	L	-	4	×								13
		GW													
and all second and the second s		GW											1		
														212	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:								pH Flow	44	_ Temp _ Other		COC Sea COC Sia Bottle	Sample Receipt Ch al Present/Intact gned/Accurate: s arrive intact: t bottles used:	NP Y N
DW - Drinking Water OT - Other	Samples returned UPS FedE		r		racking #								Suffic. VOA Ze	ient volume sent: <u>If Applicab</u> ro Headspace:	le _Y_N
Relinquished by : (Signature)		ate: 5/22,	/ 20 Tim	e: R	eceived by: (Sign	ature)	са - ф.	it in the	Trip Blan	k Recei	Н	/ NO CL/MeoH BR		vation Correct/Che reen <0.5 mR/hr:	ecked: _Y_N
Relinquished by : (Signature)	C	ate:	Tim	e: R	eceived by: (Sign	ature)			Temp!	43:	C Bottle	s Received:	If preser	rvation required by Log	gin: Date/Time
Relinquished by : (Signature)	C	ate:	Tim	e: R	eceived for lab b	y (Signa	ture)		Date:	23-	Time	dall	Hold:		Condition: NCF / OK

Katie Ingram

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5	Login #: L1221929	Client: PLAINSGHD	Date: 5/23/20	Evaluated by: Jeremy
No	Non-Conformance (check applicable items)	ck applicable items)		
	Sample Integrity	Chain of Custody Clarification	cation	
	Parameter(s) past holding	B		A REAL PROPERTY OF THE REAL PR
	time	Login Clarification Needed	đ	If Broken Container:
	Temperature not in			
	range	Chain of custody is incomplete	plete	Insufficient packing material around container
	Improper container type	Please specify Metals requested	uested.	Insufficient packing material inside cooler
	pH not in range.	Please specify TCLP requested.	ested.	Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.	ne. Received additional samples not listed on coc.	les not listed on coc.	Sample was frozen
	Sample is biphasic.	Sample ids on containers do not match ids on coc	do not match ids on	Container lid not intact
	Vials received with headspace.	space. Trip Blank not received.		If no Chain of Custody:
×	Broken container	Client did not "X" analysis.		Received by:
The second second	A DESCRIPTION OF A DESC			

Login Comments: Received 2 vials broken for MW-3R. 1 remaining

Sufficient sample remains

Broken container:

Chain of Custody is missing

Temp./Cont. Rec./pH:

Carrier: Tracking# Date/Time:

	and the second s				
Client informed by:	Call	Email	Voice Mail	Date: 5/26/20	Time: 0850
TCD Initials. MD	Client Contact	·+·		and the second se	

Run from unbroken vial

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group:	L1231477
Samples Received:	06/20/2020
Project Number:	11209891-01
Description:	Darr Angell #2 SRS LF 1999-62
Site:	SRS LF 1999-62
Report To:	Becky Haskell
	2135 S Loop 250 W
	Midland, TX 79703

Entire Report Reviewed By:

MAG

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.

Released to Imaging: 1/17/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891-01

SDG: L1231477 DATE/TIME: 06/26/20 14:57

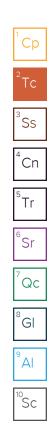
PAGE: 1 of 14

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

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Cn: Case Narrative	4
Tr: TRRP Summary	5
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TRRP form S	7
TRRP Exception Reports	8
Sr: Sample Results	9
SYSTEM OFF L1231477-01	9
Qc: Quality Control Summary	10
Volatile Organic Compounds (MS) by Method M18-Mod	10
GI: Glossary of Terms	11
Al: Accreditations & Locations	12
Sc: Sample Chain of Custody	13



SDG: L1231477

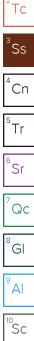
DATE/TIME: 06/26/20 14:57

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SAMPLE SUMMARY

ONE LAB. NAPage 145 of 261

			Collected by	Collected date/time	e Received dat	e/time	
SYSTEM OFF L1231477-01 Air			Matthew Laughlin	06/18/20 13:30	06/20/20 08	:45	1
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location	
			date/time	date/time			2_
Volatile Organic Compounds (MS) by Method M18-Mod	WG1497132	4000	06/23/20 08:27	06/23/20 08:27	CAW	Mt. Juliet, TN	



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PROJECT: 11209891-01

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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.

h

Mark W. Beasley Project Manager

SDG: L1231477

DATE/TIME: 06/26/20 14:57 PAGE: 4 of 14



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 Name: Pace Analytical National			LRC Date: 06/26/2020 14:57								
Proj	ject N	lame: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1231477-01								
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1497132								
# ¹	A ²	Description	Yes	No	NA ³	NR⁴	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 describe	d in an exception report?			Х					
R2	OI	Sample and quality control (QC) identification									
		Are all field sample ID numbers cross-referenced to the	e 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 holdin	g times?	X	1		1				
		Other than those results < MQL, were all other raw values		X							
		Were calculations checked by a peer or supervisor?		X							
		Were all analyte identifications checked by a peer or si	upervisor?	X							
		Were sample detection limits reported for all analytes	·	X							
		Were all results for soil and sediment samples reported		Â							
		· · ·		<u> </u>		X	<u> </u>				
		Were % moisture (or solids) reported for all soil and sec	· · · · · · · · · · · · · · · · · · ·			X					
		Were bulk soils/solids samples for volatile analysis extr	racted with methanol per SW846 Method 5035?		 	X					
		If required for the project, are TICs reported?				Х					
R4	0	Surrogate recovery data				-					
		Were surrogates added prior to extraction?		X							
		Were surrogate percent recoveries in all samples within	n the laboratory QC limits?	Х							
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?									
		Were blank concentrations < MQL?	X	1							
R6	OI	Laboratory control samples (LCS):									
		Were all COCs included in the LCS?		X							
		Was each LCS taken through the entire analytical proc	edure, including prep and cleanup steps?	X							
		Were LCSs analyzed at the required frequency?		Х							
		Were LCS (and LCSD, if applicable) %Rs within the labo	pratory QC limits?	X							
			le laboratory's capability to detect the COCs at the MDL								
		used to calculate the SDLs?		X	<u> </u>						
D7		Was the LCSD RPD within QC limits?	-	X	I		<u> </u>				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) dat		r	1		r —	1			
		Were the project/method specified analytes included in				X					
		Were MS/MSD analyzed at the appropriate frequency?				X					
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?	ļ	 	Х	ļ				
		Were MS/MSD RPDs within laboratory QC limits?			<u> </u>	Х					
R8	OI	Analytical duplicate data		1	-	_	1	1			
		Were appropriate analytical duplicates analyzed for ea			L	Х					
		Were analytical duplicates analyzed at the appropriate	frequency?			Х					
		Were RPDs or relative standard deviations within the la	aboratory QC limits?			Х					
R9	OI	Method quantitation limits (MQLs):									
		Are the MQLs for each method analyte included in the	laboratory data package?	Х							
		Do the MQLs correspond to the concentration of the lo	owest non-zero calibration standard?	Х							
		Are unadjusted MQLs and DCSs included in the labora	tory data package?	Х							
R10	OI	Other problems/anomalies		•			•				
		Are all known problems/anomalies/special conditions r	noted in this LRC and ER?	X							
		Was applicable and available technology used to lowe	r the SDL to minimize the matrix interference effects on	x	1						
			aboratory Accreditation Program for the analytes, matrices	x		1					
		and methods associated with this laboratory data pack	age?		<u> </u>						
shoul 2. O 3. NA	ld be r = orga A = No	ntified by the letter "R" must be included in the laborato etained and made available upon request for the approp nic analyses; I = inorganic analyses (and general chemis t applicable; t reviewed;		ltems i	dentifie	ed by th	e letter	"S"			
4. NH		Lievieweu,						I			

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

PROJECT: 11209891-01

SDG: L1231477 DATE/TIME:

Laboratory Name: Pace Analytical National LRC Date: 06/26/2020 14:57								
Pro	ject N	Name: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1231477-01					
Rev	viewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1497132					
# 1	A ²	Description		Yes	No	NA ³	NR⁴	ER#
51	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response fa	ctors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criter	ia met?	X				
		Was the number of standards recommended in the	e method used for all analytes?	X				
		Were all points generated between the lowest and	I 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				
2	OI	Initial and continuing calibration verification (ICCV	and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required fre	quency?	X				
		Were percent differences for each analyte within t		X				1
		Was the ICAL curve verified for each analyte?	·	X				
		Was the absolute value of the analyte concentration	on in the inorganic CCB < MDL?	1		X		
3	0	Mass spectral tuning	5					-
-		Was the appropriate compound for the method us	ed for tunina?	X	1	Т	T	Т
		Were ion abundance data within the method-requi		X				<u> </u>
4	0	Internal standards (IS)					1	-
		Were IS area counts and retention times within the	method-required QC limits?	X	1		T	T
5	OI	Raw data (NELAC Section 5.5.10)			1		1	
0	0	Were the raw data (for example, chromatograms, s	X	1	T	T	T	
		Were data associated with manual integrations flag		X			<u> </u>	<u> </u>
6	0	Dual column confirmation					I	
0	, v	Did dual column confirmation results meet the met	T	1	X	1	T	
7	0	Tentatively identified compounds (TICs)					<u> </u>	
/		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X	T	T
8	1	Interference Check Sample (ICS) results		<u> </u>			I	
0	1	Were percent recoveries within method QC limits?		T	1	X	T	т —
9	T	Serial dilutions, post digestion spikes, and method		1		^	1	<u> </u>
9	1	Were percent differences, recoveries, and the line		T	1	X	T	T
10			anty within the QC limits specified in the method?				1	
10	OI	Method detection limit (MDL) studies	-h += 2		1	1	1	1
		Was a MDL study performed for each reported and	•	X				
44		Is the MDL either adjusted or supported by the and	alysis of DCSS?	X			<u> </u>	<u> </u>
11	OI	Proficiency test reports	a analiashla susficianay teata ay such stics atualias?		1	1	1	1
10		Standards documentation	ne applicable proficiency tests or evaluation studies?	X	<u> </u>		I	<u> </u>
12	0				1	T	T	T
40		Are all standards used in the analyses NIST-tracea	ble or obtained from other appropriate sources?	X			1	
13	OI	Compound/analyte identification procedures			1	1	T	T
		Are the procedures for compound/analyte identific	ation documented?	X				
14	OI	Demonstration of analyst competency (DOC)		1.14	1	-	-	
		Was DOC conducted consistent with NELAC Chap		X				—
		Is documentation of the analyst's competency up-		Х				
15	OI	Verification/validation documentation for methods		1.	-		-	
	_	, ,	umented, verified, and validated, where applicable?	X				
16	OI	Laboratory standard operating procedures (SOPs)		-	_			_
		Are laboratory SOPs current and on file for each m	•	Х				
hou 2. O 3. N 4. N	ld be r = orga A = No R = No	entified by the letter "R" must be included in the labor retained and made available upon request for the ap anic analyses; I = inorganic analyses (and general ch t applicable; t reviewed; xcention Report identification number (an Excention	emistry, when applicable);		identifie	ed by th	e letter	"S"

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

PROJECT: 11209891-01

SDG: L1231477 DATE/TIME: 06/26/20 14:57

Project Name: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1231477-01
Reviewer Name: Mark W. Beasley ER # ¹ Description	Prep Batch Number(s): WG1497132

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

SAMPLE RESULTS - 01 L1231477

Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
nalyte			ppbv	ug/m3	ppbv	ug/m3			
enzene	71-43-2	78.10	800	2560	26100	83400		4000	WG1497132
oluene	108-88-3	92.10	800	3010	25500	96100		4000	WG1497132
thylbenzene	100-41-4	106	800	3470	5100	22100		4000	WG1497132
ı&p-Xylene	1330-20-7	106	1600	6940	6710	29100		4000	WG1497132
-Xylene	95-47-6	106	800	3470	2690	11700		4000	WG1497132
ethyl tert-butyl ether	1634-04-4	88.10	800	2880	ND	ND		4000	WG1497132
PH (GC/MS) Low Fraction	8006-61-9	101	800000	3300000	5250000	21700000		4000	WG1497132
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1497132

SDG: L1231477

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PAGE: 9 of 14 Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3541670-3	06/23/20 03:35

()				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	98.0			60.0-140

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

(LCS) R3541670-1 06/23/20 02:13 • (LCSD) R3541670-2 06/23/20 02:54										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	4.27	4.24	114	113	70.0-130			0.705	25
Benzene	3.75	3.87	3.82	103	102	70.0-130			1.30	25
Toluene	3.75	4.11	4.09	110	109	70.0-130			0.488	25
Ethylbenzene	3.75	3.91	3.86	104	103	70.0-130			1.29	25
m&p-Xylene	7.50	8.37	8.22	112	110	70.0-130			1.81	25
o-Xylene	3.75	4.28	4.20	114	112	70.0-130			1.89	25
TPH (GC/MS) Low Fraction	203	217	214	107	105	70.0-130			1.39	25
(S) 1,4-Bromofluorobenzene				103	102	60.0-140				

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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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
ldaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky ¹⁶	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

ebraska	NE-OS-15-05
levada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891-01

SDG: L1231477

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Plains All American, LP 2135 S Loop 250 W Midland, TX 79703	- GHD		10 Desta	mille Bryant a Dr., Ste 550E I, TX 79705		Pres Chk									- Pace National C	Analytical* enter for Testing & Innovation
Report to: Becky Haskell			Email To: becky.hasl	kell@ghd.com;gl	enn.quinney@	ghd.co				1000	(12065 Lebanon Rd Mount Juliet, TN 3 Phone: 615-758-58	
Project Description: Darr Angell #2 SRS LF 1999-62		City/State Collected:	In Court		Please C PT MT	ircle:				100					Phone: 800-767-58 Fax: 615-758-5859	
Phone: 432-250-7917	Client Project		a 1	Lab Project # PLAINSGHD	-11209897	Ĩ						1			SDG # 12	3/1/17
Collected by (print): Matthew Laughli	Site/Facility I SRS LF 199	D #		P.O. #									1		Acctnun	A011
Collected by (signature):	Same D	Lab MUST Be Day Five Day 5 Day	Day	Quote #	te Nandad		Tedlar			1					Template: T16 Prelogin: P77 PM: 134 - Mar	9275
mmediately Packed on Ice N Y		iy 10 D		Date Resu	lts Needed	No. cf	M18-MOD	Contraction of the				and the second		1	PB:	edEX Ground
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cutrs	M18	and the second							Remarks	Sample # (lab only)
System ON	6	Air	-	06/18/2	1330	1	x						1		_	67
System OFF	6	Air	-	06/18/2	1400	1/	X						1		_	
		Air														
	emarks:					1								Sa	mple Receipt Cl	necklist
S - Soil AIR - Air F - Filter W - Groundwater B - Bioassay W - WasteWater										pH	Temp Othe		_	Bottles a	Present/Intact ed/Accurate: arrive intact: bottles used:	
N - Drinking Water S r - Other	amples returned UPSEdEx		12	Track	ing #	(3	80	-5	791	3	380			Sufficien VOA Zero	nt volume sent: <u>If Applicab</u> Headspace:	leY_N
elinquished by : (Signature)	Da	ate: 01	19/Time	Recei	ved by: (Signa	tyre)	1		Trip	Blank Red		es / No HCL / Me TBR			tion Correct/Ch en <0.5 mR/hr:	ecked: $\underline{Y} = \underline{N}$
elinguished by: (Signature)	Da	ate://	U (O	SIL	ved by: (Signa	ture)		_	Tem	p: nb		les Recei	ved:	If preserva	tion required by Lo	gin: Date/Time
elinquished by : (Signature)	Da	ite:	Time		ved for lab by:	: (Signat	ure)	`	Date		Tim	e: 3:	47	Hold:		Condition:

-

Released to Imaging: 1/11/2022 3:45:07 PM



L	Login #:1231477 Cli	ient:P	Client:PLAINSGHD	Date:6/20	Evaluated by:Monica
No	Non-Conformance (check	appli	applicable items)		
	Sample Integrity		Chain of Custody Clarification	ion	
	Parameter(s) past holding time	×	x Login Clarification Needed		If Broken Container:
	Temperature not in range		Chain of custody is incomplete	te	Insufficient packing material around container
	Improper container type		Please specify Metals requested.	ted.	Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.	ed.	Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.	s not listed on coc.	Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc	not match ids on	Container lid not intact
	Vials received with headspace.	ce.	Trip Blank not received.		If no Chain of Custody:
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
		1			Carrier:
					Tracking#

Login Comments: Received ID SYSTEM ON deflated

Client informed by:	Call	Email	Voice Mail	Date: 6/22/20	Time: 0915	
TSR Initials: MB	Client Contact:	Becky H				

Client notified

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To: L1233089 06/25/2020 11209891 Darr Angell #2 SRS LF 1999-62 SRS LF 1999-62 Becky Haskell 2135 S Loop 250 W Midland, TX 79703

² Tc
3
ໍSs
4
⁴ Cn
_
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
PAI
¹⁰ Sc

Entire Report Reviewed By:

Mark W. Beasley Project Manager

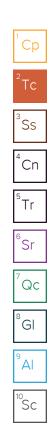
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

Released to Imaging: 0//11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209891

SDG: L1233089 DATE/TIME: 06/28/20 20:51 PAGE: 1 of 13

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SDG: L1233089

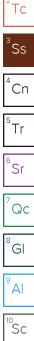
DATE/TIME: 06/28/20 20:51

PAGE: 2 of 13 Received by OCD: 4/5/2021 1:40:32 PM

SAMPLE SUMMARY

ONE LAB. NAPage 159 of 261

			Collected by	Collected date/time	e Received date	e/time	
SYSTEM ON L1233089-01 Air				06/23/20 13:07	06/25/20 08:	45	1
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location	
			date/time	date/time			2_
Volatile Organic Compounds (MS) by Method M18-Mod	WG1499156	8000	06/26/20 23:39	06/26/20 23:39	CAW	Mt. Juliet, TN	



Ср

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DATE/TIME: 06/28/20 20:51

PAGE: 3 of 13

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.

h

Mark W. Beasley Project Manager

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SDG: L1233089 DATE/TIME: 06/28/20 20:51

1E: :0:51 PAGE: 4 of 13 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

Lab	orato	ry Name: Pace Analytical National	LRC Date: 06/28/2020 20:51					
Proj	ect N	lame: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1233089-01					
Rev	iewe	^r Name: Mark W. Beasley	Prep Batch Number(s): WG1499156					
# 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?	Х				
		Were all departures from standard conditions describe	d in an exception report?			Х		
R2	OI	Sample and quality control (QC) identification						
		Are all field sample ID numbers cross-referenced to the	e laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the	corresponding QC data?	X			1	
R3	OI	Test reports						
		Were all samples prepared and analyzed within holding	g times?	Х	1		Ι	
		Other than those results < MQL, were all other raw values		Х				
		Were calculations checked by a peer or supervisor?		Х				
		Were all analyte identifications checked by a peer or s	upervisor?	х				
		Were sample detection limits reported for all analytes	•	X				
		Were all results for soil and sediment samples reported		X				
		Were % moisture (or solids) reported for all soil and sec				Х		
		Were bulk soils/solids samples for volatile analysis extr	· · ·			X		
		If required for the project, are TICs reported?				X		
D4						^		
R4	0	Surrogate recovery data			r –	1	r –	
		Were surrogates added prior to extraction?		X				
		Were surrogate percent recoveries in all samples withi	n the laboratory QC limits?	X		I		
R5	OI	Test reports/summary forms for blank samples			1	-		-
		Were appropriate type(s) of blanks analyzed?		X	<u> </u>			
		Were blanks analyzed at the appropriate frequency?		X			ļ	
		Were method blanks taken through the entire analytica cleanup procedures?	al process, including preparation and, if applicable,	X				
		Were blank concentrations < MQL?		Х				
R6	OI	Laboratory control samples (LCS):				•		
		Were all COCs included in the LCS?		Х	1			
		Was each LCS taken through the entire analytical proc	edure, including prep and cleanup steps?	Х				
		Were LCSs analyzed at the required frequency?		Х				
		Were LCS (and LCSD, if applicable) %Rs within the labo	pratory QC limits?	Х	1		1	
		Does the detectability check sample data document th	e laboratory's capability to detect the COCs at the MDL	x				
		used to calculate the SDLs?						
D7		Was the LCSD RPD within QC limits?	-	X			L	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) dat		r –	1		r	
		Were the project/method specified analytes included in				X	 	
		Were MS/MSD analyzed at the appropriate frequency?				X		
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?			Х		
		Were MS/MSD RPDs within laboratory QC limits?				Х		
R8	OI	Analytical duplicate data		-	<u> </u>	1		
		Were appropriate analytical duplicates analyzed for ea				Х		
		Were analytical duplicates analyzed at the appropriate				Х		
		Were RPDs or relative standard deviations within the la	boratory QC limits?			Х		
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 lo	west non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the labora	tory data package?	X				
R10	OI	Other problems/anomalies						
		Are all known problems/anomalies/special conditions r	noted in this LRC and ER?	Х				
			r the SDL to minimize the matrix interference effects on	x				
		the sample results? Is the laboratory NELAC-accredited under the Texas La	aboratory Accreditation Program for the analytes, matrices			1		┠──┤
		and methods associated with this laboratory data pack	age?	X				
			ry data package submitted in the TRRP-required report(s).	ltems i	dentifie	ed by th	e letter	"S"
		etained and made available upon request for the approp nic analyses; I = inorganic analyses (and general chemi:						
3. NA	4 = Ňo'	applicable:						
4. NF	R = Not	reviewed;						

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

Lab	orato	ry Name: Pace Analytical National	LRC Date: 06/28/2020 20:51					
Pro	ject N	lame: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1233089-01					
Rev	viewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1499156					
¥1	A ²	Description		Yes	No	NA ³	NR ⁴	ER#
51	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response facto	rs for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria r	net?	X				
		Was the number of standards recommended in the m	ethod used for all analytes?	X				
		Were all points generated between the lowest and his	ghest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	5	X				
		Has the initial calibration curve been verified using an	appropriate second source standard?	X				
2	OI	Initial and continuing calibration verification (ICCV and						-
		Was the CCV analyzed at the method-required freque		X		1		Т
		Were percent differences for each analyte within the	•	X				
		Was the ICAL curve verified for each analyte?		X				
		Was the absolute value of the analyte concentration in	a the inorganic CCB < MDI?			Х		
3	0	Mass spectral tuning			1	~	I	-
5		Was the appropriate compound for the method used	for tuning?	X	1	T T	r	1
		Were ion abundance data within the method-required		X				
4	0	Internal standards (IS)			1	I	I	1
-		Were IS area counts and retention times within the me	athed required OC limits?	X	1	1	<u>г</u>	Т
5	01	Raw data (NELAC Section 5.5.10)			1		L	L
5		Were the raw data (for example, chromatograms, spec	stral data) reviewed by an analyst?	X	1	r –	r –	T
<u>^</u>		Were data associated with manual integrations flagge	d on the raw data?	X	I	I	<u> </u>	1
6	0	Dual column confirmation	d ve quired QC2	1	1		1	1
7		Did dual column confirmation results meet the method		I		Х		
7	0	Tentatively identified compounds (TICs)		1	1		r	1
~	1.	If TICs were requested, were the mass spectra and TI	C data subject to appropriate checks?	I	I	Х		
8		Interference Check Sample (ICS) results		т —	1		r –	1
•	1.	Were percent recoveries within method QC limits?				Х		
9		Serial dilutions, post digestion spikes, and method of		1	-			-
		Were percent differences, recoveries, and the linearity	y within the QC limits specified in the method?			Х		
10	OI	Method detection limit (MDL) studies		-	-			-
		Was a MDL study performed for each reported analyte		X				<u> </u>
		Is the MDL either adjusted or supported by the analys	is of DCSs?	X				
11	OI	Proficiency test reports		-	-	-		-
		Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	X				
12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable	or obtained from other appropriate sources?	X				
13	OI	Compound/analyte identification procedures			-			
		Are the procedures for compound/analyte identification	on documented?	X				
14	OI	Demonstration of analyst competency (DOC)				_		
		Was DOC conducted consistent with NELAC Chapter	5?	X				
		Is documentation of the analyst's competency up-to-d	late and on file?	X				
15	OI	Verification/validation documentation for methods (NE	ELAC Chapter 5)					
		Are all the methods used to generate the data docum	ented, verified, and validated, where applicable?	Х				
16	OI	Laboratory standard operating procedures (SOPs)						
		Are laboratory SOPs current and on file for each meth	lod performed	Х				
hou 2. O 3. N/	ld be r = orga A = No R = No	ntified by the letter "R" must be included in the laborate etained and made available upon request for the appro- nic analyses; I = inorganic analyses (and general chem t applicable; reviewed; ception Report identification number (an Exception Rep	istry, when applicable);	ltems i	identifie	ed by th	e letter	"S"

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

ER # ¹	Description	
Reviewer	Name: Mark W. Beasley	Prep Batch Number(s): WG1499156
Project N	ame: Darr Angell #2 SRS LF 1999-62	Laboratory Job Number: L1233089-01
Laborato	ry Name: Pace Analytical National	LRC Date: 06/28/2020 20:51

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

SAMPLE RESULTS - 01

Sr

Qc

GI

ΆI

Sc

Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	1600	5110	63600	203000		8000	WG1499156
Toluene	108-88-3	92.10	1600	6030	56300	212000		8000	WG1499156
Ethylbenzene	100-41-4	106	1600	6940	9050	39200		8000	WG1499156
m&p-Xylene	1330-20-7	106	3200	13900	11100	48100		8000	WG1499156
o-Xylene	95-47-6	106	1600	6940	4060	17600		8000	WG1499156
Methyl tert-butyl ether	1634-04-4	88.10	1600	5770	ND	ND		8000	WG1499156
TPH (GC/MS) Low Fraction	8006-61-9	101	1600000	6610000	10700000	44200000		8000	WG1499156
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.6				WG1499156

Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3543455-3	06/26/20 10:20

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	94.9			60.0-140

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

(LCS) R3543455-1 06/26/2	20 08:59 • (LCS	SD) R3543455	2 06/26/20 0	9:39						
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	4.40	4.39	117	117	70.0-130			0.228	25
Benzene	3.75	4.55	4.51	121	120	70.0-130			0.883	25
Toluene	3.75	4.71	4.63	126	123	70.0-130			1.71	25
Ethylbenzene	3.75	4.41	4.36	118	116	70.0-130			1.14	25
m&p-Xylene	7.50	9.39	9.29	125	124	70.0-130			1.07	25
o-Xylene	3.75	4.51	4.45	120	119	70.0-130			1.34	25
TPH (GC/MS) Low Fraction	203	254	251	125	124	70.0-130			1.19	25
(S) 1,4-Bromofluorobenzene				97.8	98.5	60.0-140				

Τс

Ss

Cn

Tr

Sr

Qc

GI

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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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky 16	90010
Kentucky ²	16
Louisiana	Al30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

ebraska	NE-OS-15-05
levada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891

SDG: L1233089

DATE/TIME: 06/28/20 20:51 PAGE: 12 of 13

Received by OCD: 4/5/2021 1:40:32 PM		Billing Information:			T	Analysis / Container / Preservative						Chain of Custody Page 169 of 261			
2135 S. Loop 250W 10 Des			10 Dest	mille Bryant a Drive., Ste 5 d, TX 79705	50E	Pres Chk							0	Analytical *	
			maian	, 1, 1, 7, 57, 65											
Report to: Becky Haskell			Email To: becky.h	askell@ghd.c	+							12065 Lebanon Rd Mount Juliet, TN 37 Phone: 615-758-58	122		
Project Description: Darr Angell #2 SRS	LF 1999-62			City/State Collected: Lea									Phone: 800-767-58 Fax: 615-758-5859	59 227 10	
Phone: 432-250-7917 Fax:	Client Project			Lab Project # PlainsGHD-	11209891								L# LIZ	33089 181	
Collected by (print):	Site/Facility ID			P.O. #	#		ar						Acctnum: P2	ATTNSCIHU	
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Same Day Five D Next Day 5 Day Immediately Two Day 10 Day Packed on Ice NY Three Day		(Rad Only)	Date Res	Date Results Needed		M18-MOD						TSR: PB:			
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	118						Shipped Via: Remarks	Sample # (lab only)	
System On	Grab	Air	-	6-23-20	1307	12	X							-01	
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* Matrix:	Remarks:											<u>8</u>	ample Receipt C Present/Intact	hecklist : NP Y N	
SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater									pH	Temp Other		COC Sign Bottles	ed/Accurate: arrive intact: bottles used:	: <u>NP</u> <u>Y</u> <u>N</u> <u>Y</u> <u>N</u> <u>Y</u> <u>N</u> <u>Y</u> <u>N</u>	
DW - Drinking Water OT - Other	Samples returned via: UPSFedExCourier Tracking #				Tracking # , 1790 3630 2			302				Sufficient volume sent: Y If Applicable VOA Zero Headspace: Y			
Relinquished by : (Signature)		Date: Time: Received by Sten				ature)	1		Trip Blank Re		меон	RA	tion Correct/Ch D SCREEN: <(0.5 mR/hr	
Reinquished by: (Signature)	/	Date:	20	Time:	eceived by: (Sign:	ature)			Temp: AMB	°C Bottles Rec	eived:	1	ition required by Lo		
Relinquished by : (Signature) Released to Imaging: 1/11/2	2022 3:45:07	Date:		Time: R	San di	: (Signa	sset		Date: 6/25	Time:	us	Hold:		Condition: NCF / OK	

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: L1264759 09/22/2020 11209891/02 Plains Darr 2 SRS-LF 1999-62

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.

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SDG: L1264759 DATE/TIME: 10/01/20 11:23

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Ср

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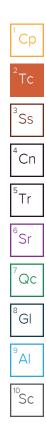
Qc

GI

AI

Sc

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SAMPLE SUMMARY

ONE LAB. NAPagev172 of 201

Ср

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	JAIMI LL S					
MW-4R-091620 L1264759-01 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 09:00	Received da	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 19:14	09/25/20 19:14	ACG	Mt. Juliet, TN
MW-3R-091620 L1264759-02 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 09:15	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 19:40	09/25/20 19:40	ACG	Mt. Juliet, TN
MW-6R-091620 L1264759-03 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 09:30	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 20:05	09/25/20 20:05	ACG	Mt. Juliet, TN
MW-7R-091620 L1264759-04 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 09:45	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 20:31	09/25/20 20:31	ACG	Mt. Juliet, TN
MW-8R-091620 L1264759-05 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 10:00	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 20:56	09/25/20 20:56	ACG	Mt. Juliet, TN
MW-9R-091620 L1264759-06 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 10:15	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 21:21	09/25/20 21:21	ACG	Mt. Juliet, TN
MW-10R-091620 L1264759-07 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 10:30	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 21:46	09/25/20 21:46	ACG	Mt. Juliet, TN
MW-12-091620 L1264759-08 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 10:45	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 22:11	09/25/20 22:11	ACG	Mt. Juliet, TN

PROJECT: 11209891/02

SDG: L1264759 DATE/TIME: 10/01/20 11:23

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SAMPLE SUMMARY

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			Callestad by	Collected date him o	Design diale	h = /h: =
MW-13-091620 L1264759-09 GW			Collected by Matthew Laughlin	Collected date/time 09/16/20 11:00	Received da 09/22/20 09	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	date/time 09/25/20 22:37	date/time 09/25/20 22:37	ACG	Mt. Juliet, TN
	W01349230	I	03/23/20 22.37	03123120 22.31	ACU	Mit. Juliet, IN
			Collected by	Collected date/time	Received da	te/time
RW-11-091620 L1264759-10 GW			Matthew Laughlin	09/16/20 11:30	09/22/20 09	:00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 23:02	09/25/20 23:02	ACG	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
RW-12-091620 L1264759-11 GW			Matthew Laughlin	09/16/20 12:00	09/22/20 09:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1551312	10	09/30/20 08:13	09/30/20 08:13	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DUP-1-091620 L1264759-12 GW			Matthew Laughlin	09/16/20 00:00	09/22/20 09	:00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1549230	1	09/25/20 23:27	09/25/20 23:27	ACG	Mt. Juliet, TN

SDG: L1264759 DATE/TIME: 10/01/20 11:23

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.

h

Mark W. Beasley Project Manager

Released to Imaging: 1/171/2022 3:45:07 PM Plains All American, LP - GHD SDG: L1264759

PAGE: 5 of 27 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

DATE/TIME: 10/01/20 11:23

Lab	orato	ry Name: Pace Analytical National	LRC Date: 10/01/2020 11:23								
Proj	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1264759-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12								
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1549230 and WG1551312								
# 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	Х								
		Were all departures from standard conditions describe	d in an exception report?			Х					
R2	OI	Sample and quality control (QC) identification									
		Are all field sample ID numbers cross-referenced to the	e laboratory ID numbers?	X							
		Are all laboratory ID numbers cross-referenced to the c	corresponding QC data?	Х							
R3	OI	Test reports									
		Were all samples prepared and analyzed within holding	g times?	X							
		Other than those results < MQL, were all other raw value	es bracketed by calibration standards?	Х							
		Were calculations checked by a peer or supervisor?		X							
		Were all analyte identifications checked by a peer or su	upervisor?	Х							
		Were sample detection limits reported for all analytes r	•	X			1	1			
		Were all results for soil and sediment samples reported		X	1	1	1	1			
		Were % moisture (or solids) reported for all soil and sec	, ,		1	X	1	1			
		Were bulk soils/solids samples for volatile analysis extr	-	<u> </u>	1	X	1	<u>† </u>			
		If required for the project, are TICs reported?				X	<u> </u>	<u> </u>			
R4	0	Surrogate recovery data		I		~	I	L			
К4	0				r	Т	<u>т</u>	T			
		Were surrogates added prior to extraction?		X X				───			
55		Were surrogate percent recoveries in all samples within	n the laboratory QC limits?	<u> </u>			I	<u> </u>			
R5	OI	Test reports/summary forms for blank samples			1	1		T			
		Were appropriate type(s) of blanks analyzed?	X	<u> </u>		ļ					
	-	Were blanks analyzed at the appropriate frequency?	X			 	──				
		Were method blanks taken through the entire analytica	I process, including preparation and, if applicable,	X							
		cleanup procedures? Were blank concentrations < MQL?		x				───			
DC				_ <u>^</u>	<u> </u>			<u> </u>			
R6	OI	Laboratory control samples (LCS):			r	1	1				
		Were all COCs included in the LCS?		X	<u> </u>			───			
		Was each LCS taken through the entire analytical proce	edure, including prep and cleanup steps?	X			ļ	───			
		Were LCSs analyzed at the required frequency?		X			 	──			
		Were LCS (and LCSD, if applicable) %Rs within the labo		X							
			e laboratory's capability to detect the COCs at the MDL	X							
		used to calculate the SDLs?				-		───			
		Was the LCSD RPD within QC limits?		X				<u> </u>			
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data		r —	1	1	<u>т</u>				
		Were the project/method specified analytes included in		ļ		Х	ļ	───			
		Were MS/MSD analyzed at the appropriate frequency?				X	 	───			
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?		<u> </u>	Х	 	──			
		Were MS/MSD RPDs within laboratory QC limits?				Х					
R8	OI	Analytical duplicate data									
		Were appropriate analytical duplicates analyzed for ea			 	Х	 				
		Were analytical duplicates analyzed at the appropriate	frequency?			Х		\vdash			
		Were RPDs or relative standard deviations within the la	boratory QC limits?			Х					
R9	OI	Method quantitation limits (MQLs):									
		Are the MQLs for each method analyte included in the	laboratory data package?	Х							
		Do the MQLs correspond to the concentration of the lo	west non-zero calibration standard?	Х							
		Are unadjusted MQLs and DCSs included in the labora	tory data package?	Х				1			
R10	OI	Other problems/anomalies				-		-			
		Are all known problems/anomalies/special conditions r	noted in this LRC and ER?	X							
		· · · · ·	r the SDL to minimize the matrix interference effects on		1	1	1	1			
		the sample results?		X	1			1			
		Is the laboratory NELAC-accredited under the Texas La	boratory Accreditation Program for the analytes, matrices	x		1	T	1			
		and methods associated with this laboratory data pack	age?								
			y data package submitted in the TRRP-required report(s).	Items i	dentifie	ed by th	e letter	"S"			
		etained and made available upon request for the approp nic analyses; I = inorganic analyses (and general chemis									
		t applicable;	, men appleable,								
		t reviewed:									

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

PROJECT: 11209891/02

SDG: L1264759 PAGE: 7 of 27

Lab	orato	ry Name: Pace Analytical National	LRC Date: 10/01/2020 11:23					
Proj	ect N	Jame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1264759-01, 02, 03, 04	, 05, 06, 0	7, 08,	09, 10,	11 and	12
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1549230 and WG15513	12				
# ¹	A ²	Description		Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factor	ors for each analyte within QC limits?			Х		
		Were percent RSDs or correlation coefficient criteria	met?	Х				
		Was the number of standards recommended in the n	nethod used for all analytes?	Х				
		Were all points generated between the lowest and h	ighest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?		Х				
		Has the initial calibration curve been verified using a	n appropriate second source standard?	Х				
S2	OI	Initial and continuing calibration verification (ICCV an	d CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequ	ency?	Х				
		Were percent differences for each analyte within the	method-required QC limits?	Х				
		Was the ICAL curve verified for each analyte?		Х				
		Was the absolute value of the analyte concentration	in the inorganic CCB < MDL?			Х		
S3	0	Mass spectral tuning						
		Was the appropriate compound for the method used	for tuning?			Х		
		Were ion abundance data within the method-require	d QC limits?			Х		
S4	0	Internal standards (IS)						
		Were IS area counts and retention times within the m	nethod-required QC limits?	Х				
S5	OI	Raw data (NELAC Section 5.5.10)						
		Were the raw data (for example, chromatograms, spe	ectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagg		X				
S6	0	Dual column confirmation						
		Did dual column confirmation results meet the metho	od-required QC?			Х		
S7	0	Tentatively identified compounds (TICs)						
		If TICs were requested, were the mass spectra and T	IC data subject to appropriate checks?			Х		
S8	1	Interference Check Sample (ICS) results						
		Were percent recoveries within method QC limits?				Х	I	
S9	1	Serial dilutions, post digestion spikes, and method of	f standard additions					
		Were percent differences, recoveries, and the lineari	ty within the QC limits specified in the method?			Х		
S10	OI	Method detection limit (MDL) studies					•	
		Was a MDL study performed for each reported analy	te?	Х				
		Is the MDL either adjusted or supported by the analy	sis of DCSs?	X				
S11	OI	Proficiency test reports					•	
		Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	Х				
S12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable	e or obtained from other appropriate sources?	Х				
S13	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identificat	ion documented?	Х				
S14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapte	Х					
		Is documentation of the analyst's competency up-to-	date and on file?	Х				
S15	OI	Verification/validation documentation for methods (N	ELAC Chapter 5)					
		Are all the methods used to generate the data docur	nented, verified, and validated, where applicable?	Х				
S16	OI	Laboratory standard operating procedures (SOPs)						-
		Are laboratory SOPs current and on file for each met	hod performed	Х				
shoul 2. O 3. NA	d be r = orga A = No		tory data package submitted in the TRRP-required repor opriate retention period.	t(s). Items i	dentifie	ed by th	e letter	"S"

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

PROJECT: 11209891/02

SDG: L1264759 DATE/TIME: 10/01/20 11:23

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Laboratory Name: Pace Analytical National	LRC Date: 10/01/2020 11:23				
Project Name: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1264759-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12				
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1549230 and WG1551312				
ER # ¹ Description	•				

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

SAMPLE RESULTS - 01 L1264759

Volatile Organic Compounds (GC) by Method 8021B

Volatile Organic Comp	bounds (G	C) by Meth	od 8021B						1
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 19:14	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 19:14	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 19:14	WG1549230	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 19:14	WG1549230	55
(S) a,a,a-Trifluorotoluene(PID)	99.5				79.0-125		09/25/2020 19:14	WG1549230	4

-
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

SDG: L1264759

DATE/TIME: 10/01/20 11:23

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SAMPLE RESULTS - 02

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.00186		0.000190	0.000500	0.000500	1	09/25/2020 19:40	WG1549230	Tc
Toluene	0.000779	J	0.000412	0.00100	0.00100	1	09/25/2020 19:40	WG1549230	
Ethylbenzene	0.000239	J	0.000160	0.000500	0.000500	1	09/25/2020 19:40	WG1549230	³ Ss
Total Xylene	0.000974	J	0.000510	0.00150	0.00150	1	09/25/2020 19:40	WG1549230	53
(S) a,a,a-Trifluorotoluene(PID)	97.4				79.0-125		09/25/2020 19:40	WG1549230	4



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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 20:05	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 20:05	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 20:05	WG1549230	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 20:05	WG1549230	03
(S) a,a,a-Trifluorotoluene(PID)	99.3				79.0-125		09/25/2020 20:05	WG1549230	4

ັSs
⁴Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 20:31	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 20:31	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 20:31	WG1549230	³ S s
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 20:31	WG1549230	03
(S) a,a,a-Trifluorotoluene(PID)	99.1				79.0-125		09/25/2020 20:31	WG1549230	4

³ Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
Sc

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Volatile Organic Compounds (GC) by Method 8021B

										<u> </u>
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Cr	J
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	_
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 20:56	WG1549230	Ťτ	2
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 20:56	WG1549230		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 20:56	WG1549230	³ Ss	
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 20:56	WG1549230	53)
(S) a,a,a-Trifluorotoluene(PID)	98.8				79.0-125		09/25/2020 20:56	WG1549230	4	_

³ Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[®] Gl
P
¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

Volatile Organic Compounds (GC) by Method 8021B										
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		i	
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 21:21	WG1549230		
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 21:21	WG1549230		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 21:21	WG1549230		
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 21:21	WG1549230		
(S) a,a,a-Trifluorotoluene(PID)	99.6				79.0-125		09/25/2020 21:21	WG1549230		

SS
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 21:46	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 21:46	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 21:46	WG1549230	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 21:46	WG1549230	55
(S) a,a,a-Trifluorotoluene(PID)	100				79.0-125		09/25/2020 21:46	WG1549230	4



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SAMPLE RESULTS - 08 L1264759

Volatile Organic Compounds (GC) by Method 8021B

Volatile Organic Compounds (GC) by Method 8021B									
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.0383		0.000190	0.000500	0.000500	1	09/25/2020 22:11	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 22:11	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 22:11	WG1549230	³ S c
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 22:11	WG1549230	55
(S) a,a,a-Trifluorotoluene(PID)	96.4				79.0-125		09/25/2020 22:11	WG1549230	4

³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
[°] Gl
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¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	- 1-
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	09/25/2020 22:37	WG1549230	Tc
Toluene	U		0.000412	0.00100	0.00100	1	09/25/2020 22:37	WG1549230	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/25/2020 22:37	WG1549230	³ S s
Total Xylene	U		0.000510	0.00150	0.00150	1	09/25/2020 22:37	WG1549230	03
(S) a,a,a-Trifluorotoluene(PID)	99.4				79.0-125		09/25/2020 22:37	WG1549230	4

³ Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] GI
⁹ Al
¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

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	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		μ
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	_
Benzene	0.0140		0.000190	0.000500	0.000500	1	09/25/2020 23:02	WG1549230	ŤT(с
Toluene	0.00279		0.000412	0.00100	0.00100	1	09/25/2020 23:02	WG1549230		
Ethylbenzene	0.00415		0.000160	0.000500	0.000500	1	09/25/2020 23:02	WG1549230	³ S	<u>د</u>
Total Xylene	0.0186		0.000510	0.00150	0.00150	1	09/25/2020 23:02	WG1549230		3
(S) a,a,a-Trifluorotoluene(PID)	97.6				79.0-125		09/25/2020 23:02	WG1549230	4	



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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	Cp
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.561		0.00190	0.000500	0.00500	10	09/30/2020 08:13	WG1551312	Тс
Toluene	0.00979	J	0.00412	0.00100	0.0100	10	09/30/2020 08:13	WG1551312	
Ethylbenzene	0.165		0.00160	0.000500	0.00500	10	09/30/2020 08:13	WG1551312	³ Ss
Total Xylene	0.0986		0.00510	0.00150	0.0150	10	09/30/2020 08:13	WG1551312	53
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		09/30/2020 08:13	WG1551312	4

Ss
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[≁] Cn
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⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.0135		0.000190	0.000500	0.000500	1	09/25/2020 23:27	WG1549230	Tc
Toluene	0.00268		0.000412	0.00100	0.00100	1	09/25/2020 23:27	WG1549230	
Ethylbenzene	0.00397		0.000160	0.000500	0.000500	1	09/25/2020 23:27	WG1549230	³ S c
Total Xylene	0.0180		0.000510	0.00150	0.00150	1	09/25/2020 23:27	WG1549230	53
(S) a,a,a-Trifluorotoluene(PID)	97.2				79.0-125		09/25/2020 23:27	WG1549230	4



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Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY L1264759-01,02,03,04,05,06,07,08,09,10,12

Method Blank (MB)

(MB) R3575785-2	09/25/20 18:27	
	MB Result	MB (

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	99.1			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3575785-1 09/25/20 17:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0468	93.6	77.0-122	
Toluene	0.0500	0.0475	95.0	80.0-121	
Ethylbenzene	0.0500	0.0503	101	80.0-123	
Total Xylene	0.150	0.149	99.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			98.1	79.0-125	

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Volatile Organic Compounds (GC) by Method 8021B

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3576133-3 09/30/	/20 02:17			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	102			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3576133-1 09/30/20 00:06

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0459	91.8	77.0-122	
Toluene	0.0500	0.0470	94.0	80.0-121	
Ethylbenzene	0.0500	0.0496	99.2	80.0-123	
Total Xylene	0.150	0.148	98.7	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			101	79.0-125	

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Ss

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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.

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Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS

Page 194 of 261 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.

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky ¹⁶	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Vebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1 4}	2006
Texas	T104704245-18-15
Texas⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



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			Billing Infor	mation:					Analysi	is / Contai	ner / Pres	ervative		Chain of Custo	dy Page 2 of _
Plains All American, LP -	GHD		Camille B			Pres Chk								Pac	e Analytical*
2135 S Loop 250 W Midland, TX 79703				TX 79705										Nationa	i Center for Testing & Innovatio
Report to: Becky Haskell			Email To: becky.hask	ell@ghd.com;glen	n.quinney@g	ghd.co		B						12065 Lebanon I Mount Juliet, TN Phone: 615-758- Phone: 800-767-	37122
Project Description: Plains Darr 2 SRS-LF 1999-62		City/State Collected:	Loving		Please Cir PT MT C			IM		action and a second sec				Fax: 615-758-58	
Phone: 432-250-7917	Client Project # 11209891/0			Lab Project # PLAINSGHD-1	1209891		induction of the	oPres						SDG #	4737
Collected by (print):	Site/Facility ID	#		P.O. #		-	CI	hmb-N						Acctnum: PL	
Collected by (signature):	Rush? (L Same Da	ab MUST Be		Quote #			40mIAmb-HCI	40ml/						Template: T1 Prelogin: P7	
Immediately Packed on Ice N Y Y	Next Day Two Day Three Day	10 D	y (Rad Only) ay (Rad Only)	Date Result	Needed	No. of		PAHSIMLVI 40mlAmb-NoPres-WT						PM: PB:	FedEX Ground
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	втех	PAHS						Remarks	Sample # (lab only)
RW-12-091630	6	GW	-	09/16/20	1200	100	30	V							1
RW-12-091630 Dup-1-091630	6	GW GW	-	09/16/20	-	3	3								n
		GW													
		GW GW													
		GW			1										
		GW				-									
		GW								Land Land					
SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay	Remarks:								pl Flo	н ow	_ Temp _ Other		COC Seal COC Sign Bottles	ample Receipt (Present/Intac med/Accurate: arrive intact; bottles used:	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \end{array} \end{array} \end{array} \end{array} \\ \begin{array}{c} \begin{array}{c} \end{array} \end{array} \end{array} \\ \begin{array}{c} \begin{array}{c} \end{array} \end{array} \end{array} \\ \begin{array}{c} \end{array} \end{array} \end{array} \\ \begin{array}{c} \begin{array}{c} \end{array} \end{array} \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \end{array} \end{array} \\ \begin{array}{c} \end{array} \end{array} \\ \end{array} \\ \end{array} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \end{array} \\ \\ \end{array} \\ \end{array} \\ \\ \end{array} \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \end{array} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \end{array} \\$
OT - Other	Samples returned UPSFedEx	Courie	r	Tracki	ng # (1 red by: (Signat	22	. 6	13	245	H lank Recei	ved: Yes	N	VOA Zero Preserva	ent volume sent <u>If Applica</u> Headspace: ation Correct/Cl	$\frac{\text{ole}}{\text{necked}} = \frac{1}{1} \frac{1}{1} \frac{1}{N}$
Relinquished by : (Signature)	- C	ate: 9-21-	20 1:	3:00 7	A	/	2				H Ti	CL / MeoH BR		een <0.5 mR/hr:	<u>L</u> <u>N</u>
Relinduished by (Signature)		ate: 1.21.2	20 (4	,30 F	ed by: (Signat		-		Temp 0,3-	2.0.12	i i	Received:		ation required by Lo	
Relinquished by : (Signature)	D	ate:	Time	Contraction of the local data	ed for lab by:	1	ure)	1	Date:	12/20	Time:	00	Hold:		Condition: NCF / OK



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To: L1270300 10/07/2020 11209885/02 Darr Angell #1 SRS Darr Angell #1 SRS DARR ANGELL #1 Becky Haskell 2135 S Loop 250 W Midland, TX 79703 ²Tc ³Ss ⁴Cn ⁵Tr ⁶Sr ⁷Qc ⁸Gl ⁹Al

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.

Released to Imaging: 0//11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209885/02

SDG: L1270300 DATE/TIME: 10/08/20 17:12

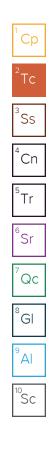
PAGE: 1 of 16

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Ср

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SDG: L1270300

DATE/TIME: 10/08/20 17:12

PAGE: 2 of 16

SAMPLE SUMMARY

ONE LAB. NAPagev199 of 201

			Collected by	Collected date/time	Received da	
DARR 2 PUMP ON L1270300-01 Air				10/06/20 10:10	10/07/20 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1555481	2000	10/08/20 06:38	10/08/20 06:38	MBF	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DARR 2 PUMP OFF L1270300-02 Air				10/06/20 10:12	10/07/20 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1555481	80	10/08/20 07:17	10/08/20 07:17	MBF	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DARR 1 PUMP ON L1270300-03 Air				10/06/20 10:30	10/07/20 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1555481	400	10/08/20 07:52	10/08/20 07:52	MBF	Mt. Juliet, TN

Ср

Тс

Ss

Cn

Released to Imaging: 1/11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209885/02

SDG: L1270300 С 1С

DATE/TIME: 10/08/20 17:12 PAGE: 3 of 16

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.

h

Mark W. Beasley Project Manager

SDG: L1270300 DATE/TIME:

PAGE: 4 of 16 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

Lab	orato	ory Name: Pace Analytical National	LRC Date: 10/08/2020 17:12					
Proj	ject N	Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1270300-01, 02 and 03					
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1555481					
¥1	A ²	Description		Yes	No	NA ³	NR ⁴	ER#
21	OI	Chain-of-custody (C-O-C)						
		Did samples meet the laboratory's standard condition	ns of sample acceptability upon receipt?	Х				
		Were all departures from standard conditions descri	bed in an exception report?			Х		
2	OI	Sample and quality control (QC) identification						•
		Are all field sample ID numbers cross-referenced to	the laboratory ID numbers?	X				1
		Are all laboratory ID numbers cross-referenced to th		Х				
3	OI	Test reports					•	
		Were all samples prepared and analyzed within hold	ling times?	X			I	1
		Other than those results < MQL, were all other raw v	-	X				
		Were calculations checked by a peer or supervisor?		X				
		Were all analyte identifications checked by a peer o		X				
		Were sample detection limits reported for all analyte	•	X				
		Were all results for soil and sediment samples report		X				
		Were % moisture (or solids) reported for all soil and s				v		
		Were bulk soils/solids samples for volatile analysis e	· · · · · · · · · · · · · · · · · · ·					
		If required for the project, are TICs reported?						
4	0	Surrogate recovery data				~	I	
4		Were surrogates added prior to extraction?					1	1
		Were surrogate percent recoveries in all samples wi	this the leberatory OC limits?	X				-
!5	OI	Test reports/summary forms for blank samples					1	1
		Were appropriate type(s) of blanks analyzed?		X				
		Were blanks analyzed at the appropriate frequency		X				
		Were method blanks taken through the entire analytic cleanup procedures?	ical process, including preparation and, if applicable,	X				
		Were blank concentrations < MQL?		X				
86	OI	Laboratory control samples (LCS):					I	
		Were all COCs included in the LCS?		X			1	1
		Was each LCS taken through the entire analytical pr	ocedure including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?		X				
		Were LCS (and LCSD, if applicable) %Rs within the la	boratory OC limits?	X				
			the laboratory's capability to detect the COCs at the MDL					
		used to calculate the SDLs?		X				
		Was the LCSD RPD within QC limits?		Х				
7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) c	lata					
		Were the project/method specified analytes include	d in the MS and MSD?			Х		
		Were MS/MSD analyzed at the appropriate frequence	y?			Х		
		Were MS (and MSD, if applicable) %Rs within the lab	oratory QC limits?			Х		
		Were MS/MSD RPDs within laboratory QC limits?				Х		
8	OI	Analytical duplicate data						
		Were appropriate analytical duplicates analyzed for	each matrix?			Х		
		Were analytical duplicates analyzed at the appropria	te frequency?			Х		
		Were RPDs or relative standard deviations within the	e laboratory QC limits?			Х		
9	OI	Method quantitation limits (MQLs):						
		Are the MQLs for each method analyte included in the	ne laboratory data package?	X				
		Do the MQLs correspond to the concentration of the	lowest non-zero calibration standard?	Х			1	
		Are unadjusted MQLs and DCSs included in the labo	pratory data package?	Х				
10	OI	Other problems/anomalies						
		Are all known problems/anomalies/special condition	s noted in this LRC and ER?	X				
		Was applicable and available technology used to low the sample results?	wer the SDL to minimize the matrix interference effects on	×				
			Laboratory Accreditation Program for the analytes, matrices ckage?	х				
shoul 2. O 3. NA 4. NF	ld be r = orga A = No R = No	ntified by the letter "R" must be included in the labora etained and made available upon request for the appr anic analyses; I = inorganic analyses (and general che t applicable; t reviewed;	tory data package submitted in the TRRP-required report(s). ropriate retention period.		lentifie	d by th	e letter	"S"

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

PROJECT: 11209885/02

SDG: L1270300

Lab	orato	ory Name: Pace Analytical National	LRC Date: 10/08/2020 17:12					
Proj	ject N	Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1270300-01, 02 and 03					
Rev	viewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1555481					
# 1	A ²	Description	•	Yes	No	NA ³	NR ⁴	ER# ⁵
51	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response fact	ors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria	met?	X				
		Was the number of standards recommended in the r	method used for all analytes?	X				
		Were all points generated between the lowest and h	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 a	in appropriate second source standard?	X				
2	01	Initial and continuing calibration verification (ICCV ar			1			-
		Was the CCV analyzed at the method-required frequ		X	1	1	1	Т
		Were percent differences for each analyte within the		X				
		Was the ICAL curve verified for each analyte?		X				
		Was the absolute value of the analyte concentration	in the inorganic $CCB < MDI$?			Х		
3	0	Mass spectral tuning		<u> </u>	1	~	1	<u> </u>
5		Was the appropriate compound for the method used	h for tuning?	X	1	1	1	Г
		Was the appropriate compound for the method used Were ion abundance data within the method-require	•	X				-
4	0	Internal standards (IS)		<u> </u>			I	<u> </u>
4	10		nothed very vised OC limite?	Тх	1	T	r —	T
-		Were IS area counts and retention times within the r	nethod-required QC limits?	<u> </u>	1		<u> </u>	1
5	OI	Raw data (NELAC Section 5.5.10)	a staal slaste) was denned bere en en staat st		1	T	1	1
		Were the raw data (for example, chromatograms, sp	· · · ·	X			 	
•		Were data associated with manual integrations flage	jed on the raw data?	X	I			
6	0	Dual column confirmation		-	1		1	1
-		Did dual column confirmation results meet the method	od-required QC?		I	Х		
57	0	Tentatively identified compounds (TICs)		-	1	1	1	
-	1.	If TICs were requested, were the mass spectra and	FIC data subject to appropriate checks?			Х		
8		Interference Check Sample (ICS) results		.	-		1	-
		Were percent recoveries within method QC limits?				Х		
9	1	Serial dilutions, post digestion spikes, and method o			-	-	1	
		Were percent differences, recoveries, and the linear	ity within the QC limits specified in the method?			Х		
10	OI	Method detection limit (MDL) studies						
		Was a MDL study performed for each reported analy	rte?	X				
	_	Is the MDL either adjusted or supported by the analy	/sis of DCSs?	Х				
11	OI	Proficiency test reports						
		Was the laboratory's performance acceptable on the	e applicable proficiency tests or evaluation studies?	X				
512	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable	e or obtained from other appropriate sources?	X				
513	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identifica	tion documented?	X				
14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapte	er 5?	X				
		Is documentation of the analyst's competency up-to	-date and on file?	X				
15	OI	Verification/validation documentation for methods (N			-	-		
		Are all the methods used to generate the data docu		X				
516	OI	Laboratory standard operating procedures (SOPs)					•	-
_		Are laboratory SOPs current and on file for each me	thod performed	Тх			1	
shoul 2. O 3. NA	ld be r = orga A = No		, tory data package submitted in the TRRP-required report(s). ropriate retention period.		identifie	d by th	e letter	"S"

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

SDG: L1270300

ER # ¹ Description	
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1555481
Project Name: Darr Angell #1 SRS Darr Ange	I #1 Laboratory Job Number: L1270300-01, 02 and 03
Laboratory Name: Pace Analytical National	LRC Date: 10/08/2020 17:12

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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

Sr

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	400	1280	21200	67700		2000	WG1555481
oluene	108-88-3	92.10	400	1510	23900	90000		2000	WG1555481
thylbenzene	100-41-4	106	400	1730	3360	14600		2000	WG1555481
n&p-Xylene	1330-20-7	106	800	3470	5680	24600		2000	WG1555481
-Xylene	95-47-6	106	400	1730	1540	6680		2000	WG1555481
ethyl tert-butyl ether	1634-04-4	88.10	400	1440	ND	ND		2000	WG1555481
PH (GC/MS) Low Fraction	8006-61-9	101	400000	1650000	2050000	8470000		2000	WG1555481
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.9				WG1555481

SDG: L1270300 DATE/TIME: 10/08/20 17:12

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
nalyte			ppbv	ug/m3	ppbv	ug/m3			
Senzene	71-43-2	78.10	16.0	51.1	2640	8430		80	WG1555481
oluene	108-88-3	92.10	16.0	60.3	3440	13000		80	WG1555481
thylbenzene	100-41-4	106	16.0	69.4	473	2050		80	WG1555481
n&p-Xylene	1330-20-7	106	32.0	139	869	3770		80	WG1555481
Xylene	95-47-6	106	16.0	69.4	260	1130		80	WG1555481
ethyl tert-butyl ether	1634-04-4	88.10	16.0	57.7	ND	ND		80	WG1555481
H (GC/MS) Low Fraction	8006-61-9	101	16000	66100	292000	1210000		80	WG1555481
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.3				WG1555481

PROJECT: 11209885/02

SDG: L1270300 DATE/TIME: 10/08/20 17:12

PAGE: 10 of 16

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	80.0	256	15300	48900		400	WG1555481
Toluene	108-88-3	92.10	80.0	301	27900	105000		400	WG1555481
Ethylbenzene	100-41-4	106	80.0	347	5750	24900		400	WG1555481
m&p-Xylene	1330-20-7	106	160	694	12000	52000		400	WG1555481
o-Xylene	95-47-6	106	80.0	347	3800	16500		400	WG1555481
Methyl tert-butyl ether	1634-04-4	88.10	80.0	288	ND	ND		400	WG1555481
TPH (GC/MS) Low Fraction	8006-61-9	101	80000	330000	1780000	7350000		400	WG1555481
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1555481

SDG: L1270300 DATE/TIME: 10/08/20 17:12

PAGE: 11 of 16 Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

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Method Blank (MB)

(MB) R3579127-3	10/07/20 20:28

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	95.7			60.0-140

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

(LCS) R3579127-1 10/07/20) 19:12 • (LCSD)	R3579127-2 1	0/07/20 19:51							
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	3.53	3.70	94.1	98.7	70.0-130			4.70	25
Benzene	3.75	3.60	3.65	96.0	97.3	70.0-130			1.38	25
Toluene	3.75	3.60	3.64	96.0	97.1	70.0-130			1.10	25
Ethylbenzene	3.75	3.59	3.71	95.7	98.9	70.0-130			3.29	25
m&p-Xylene	7.50	7.34	7.55	97.9	101	70.0-130			2.82	25
o-Xylene	3.75	3.59	3.74	95.7	99.7	70.0-130			4.09	25
TPH (GC/MS) Low Fraction	203	204	213	100	105	70.0-130			4.32	25
(S) 1,4-Bromofluorobenzene				100	100	60.0-140				

DATE/TIME: 10/08/20 17:12 PAGE: 12 of 16

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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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

PROJECT: 11209885/02

SDG: L1270300 DATE/TIME: 10/08/20 17:12

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Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama40660Alaska17-026ArizonaAZ0612Arkansas88-0469California2932ColoradoTN00003ConnecticutPH-0197FloridaE87487GeorgiaNELAPGeorgia 1923IdahoTN0003Illinois20008IndianaC-TN-01Iowa364KansasE-10277Kentucky 1690010Kentucky 216Louisiana 1LAI80010MaineTN0002Maryland324MassachusettsM-TN003Minnesota047-999-395MinssisippiTN0003MississippiX0003Missouri340MontanaCERT0086		
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Arkansas Bioloc Arkansas 88-0469 California 2932 Colorado TN00003 Connecticut PH-0197 Florida E87487 Georgia NELAP Georgia ¹ 923 Idaho TN00003 Illinois 200008 Indiana C-TN-01 Iowa 364 Kansas E-10277 Kentucky ¹⁶ 90010 Louisiana Al30792 Louisiana ¹ LA180010 Maine TN0002 Maryland 324 Massachusetts M-TN003 Minnesota 047-999-395 Minnesota 047-999-395 Missouri 340	Alaska	17-026
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Montana CERT0086	Missouri	340
	Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Dhio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Гехаs	T104704245-18-15
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Jtah	TN00003
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/irginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	Δ2Ι Δ

Third Party Federal Accreditations

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

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

Our Locations

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



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Pace Analytical National Center for Testing & Innovation .

Lo	Login #: L1270300 Client:	Client: PLAINSGHD Date: 10/7/20	Evaluated by: Troy Dunlap
No	Non-Conformance (check applicable items)	dicable items)	
24	Sample Integrity	Chain of Custody Clarification	
	Parameter(s) past holding time	Login Clarification Needed	If Broken Container:
	Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
	Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
	pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Cour
	Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
	Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
	Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
×	Broken container	Client did not "X" analysis.	Received by:
	Broken container:	Chain of Custody is missing	Date/Time:
	Sufficient sample remains		Temp./Cont. Rec./pH:
			Carrier:
			Trackine#

Login Comments: Tedlar received broken for DARR 1 PUMP OFF.

Client informed by:	Call	Email	Voice Mail	Date: 10/7/	7/20	Time: 1315	ľ
TSR Initials: MB C	Client Conta	ct: Becky Hasl	kell		-		

Client notified



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group: Samples Received: Project Number: Description: L1281156 11/03/2020 11209891/02 Plains Darr 2 SRS-LF 1999-62

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.

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MW-6R L1281156-02	11		
MW-7R L1281156-03	12		
MW-8R L1281156-04	13		
MW-9R L1281156-05	14		
MW-10R L1281156-06	15		
MW-13 L1281156-07	16		
MW-3R L1281156-08	17		
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			Collected by	Collected date/time		
MW-4R L1281156-01 GW			Zach Comino	10/30/20 10:20	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
	WC1572500	1	date/time	date/time		MAL Julian Thi
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 15:55	11/07/20 15:55	JHH	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
MW-6R L1281156-02 GW			Zach Comino	10/30/20 10:45	11/03/20 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 16:18	11/07/20 16:18	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 16:23	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-7R L1281156-03 GW			Zach Comino	10/30/20 11:10	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 16:40	11/07/20 16:40	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 16:43	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-8R L1281156-04 GW			Zach Comino	10/30/20 11:35	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 17:02	11/07/20 17:02	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 17:03	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
MW-9R L1281156-05 GW			Zach Comino	10/30/20 12:00	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 17:24	11/07/20 17:24	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 17:23	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-10R L1281156-06 GW			Zach Comino	10/30/20 12:20	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 17:47	11/07/20 17:47	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 17:43	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
MW-13 L1281156-07 GW			Zach Comino	10/30/20 12:40	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 18:09	11/07/20 18:09	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 18:04	LEA	Mt. Juliet, TN

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MW-3R L1281156-08 GW			Collected by Zach Comino	Collected date/time 10/30/20 12:50	e Received date/time 11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572590	1	11/07/20 18:31	11/07/20 18:31	JHH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 18:24	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
MW-12 L1281156-09 GW			Zach Comino	10/30/20 13:00	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
/olatile Organic Compounds (GC) by Method 8021B	WG1572605	1	11/07/20 02:44	11/07/20 02:44	TPR	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
RW-11 L1281156-10 GW			Zach Comino	10/30/20 13:15	11/03/20 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572605	1	11/07/20 03:06	11/07/20 03:06	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 18:44	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
RW-12 L1281156-11 GW			Zach Comino	10/30/20 13:00	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572605	10	11/07/20 09:20	11/07/20 09:20	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 19:04	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
DUP-1 L1281156-12 GW			Zach Comino	10/30/20 00:00	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572605	1	11/07/20 03:28	11/07/20 03:28	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1571230	1	11/05/20 07:40	11/05/20 19:24	LEA	Mt. Juliet, TN
			Collected by	Collected date/time	Received date/time	
DUP-2 L1281156-13 GW			Zach Comino	10/30/20 00:00	11/03/20 08:00	
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1572605	1	11/07/20 03:50	11/07/20 03:50	TPR	Mt. Juliet, TN

PROJECT: 11209891/02

SDG: L1281156 DATE/TIME: 11/11/20 16:41

PAGE: 4 of 30

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.

h

Mark W. Beasley Project Manager

SDG: L1281156 DATE/TIME: 11/11/20 16:41

ME: 6:41 PAGE: 5 of 30 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

Labo	orato	ry Name: Pace Analytical National	LRC Date: 11/11/2020 16:41					
Proj	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1281156-01, 02, 03, 04, 05,	06, 07	7, 08, C	9, 10, 1	1, 12 ar	nd 13
Revi	iewe	Name: Mark W. Beasley	Prep Batch Number(s): WG1571230, WG1572590 and	WG157	2605			
# ¹	A ²	Description		Yes	No	NA ³	NR⁴	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 describe	d in an exception report?			Х		
R2	OI	Sample and quality control (QC) identification						
		Are all field sample ID numbers cross-referenced to the	e laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the	corresponding QC data?	X			1	
R3	OI	Test reports	· · · · · · · · · · · · · · · · · · ·	•			•	
		Were all samples prepared and analyzed within holdin	a times?	X	1		Ι	
		Other than those results < MQL, were all other raw values	-	X				
		Were calculations checked by a peer or supervisor?		X				
		Were all analyte identifications checked by a peer or s	upen/isor?	X			l	<u> </u>
		Were sample detection limits reported for all analytes	•	X				
		Were all results for soil and sediment samples reported		X				
				\vdash		V		
		Were % moisture (or solids) reported for all soil and see	· · · · · · · · · · · · · · · · · · ·			X		
		Were bulk soils/solids samples for volatile analysis extr	acted with methanol per SW846 Method 5035?			X		I
	-	If required for the project, are TICs reported?		I		Х	I	
R4	0	Surrogate recovery data		L	<u> </u>	1	,	1
1		Were surrogates added prior to extraction?		X	I			L
——		Were surrogate percent recoveries in all samples withi	n the laboratory QC limits?	Х				
R5	OI	Test reports/summary forms for blank samples				-		
ł		Were appropriate type(s) of blanks analyzed?		X				
		Were blanks analyzed at the appropriate frequency?		Х				
		Were method blanks taken through the entire analytica cleanup procedures?	al process, including preparation and, if applicable,	х				
		Were blank concentrations < MQL?		Х				
R6	OI	Laboratory control samples (LCS):						
		Were all COCs included in the LCS?		X				
		Was each LCS taken through the entire analytical proc	edure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?		X				
		Were LCS (and LCSD, if applicable) %Rs within the labo	pratory QC limits?	X			1	
		Does the detectability check sample data document th used to calculate the SDLs?	e laboratory's capability to detect the COCs at the MDL	х				
ĺ		Was the LCSD RPD within QC limits?		X	1			
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) dat	8	•				
		Were the project/method specified analytes included i		X	1		I	1
		Were MS/MSD analyzed at the appropriate frequency?		X			1	
		Were MS (and MSD, if applicable) %Rs within the labor		X				
		Were MS/MSD RPDs within laboratory QC limits?		X				
R8	OI	Analytical duplicate data				1	1	
		Were appropriate analytical duplicates analyzed for ea	ch matrix?	1	1	X	1	1
		Were analytical duplicates analyzed at the appropriate				X	<u> </u>	
		Were RPDs or relative standard deviations within the la				X		
R9	OI	Method guantitation limits (MQLs):		I			I	
КЭ	0		lah ayatay u data ya alƙasa 2		r —	1	1	r
		Are the MQLs for each method analyte included in the		X				
		Do the MQLs correspond to the concentration of the lo		X				
B 40		Are unadjusted MQLs and DCSs included in the labora	tory data package?	X		I	I	
R10	OI	Other problems/anomalies				1	1	r –
		Are all known problems/anomalies/special conditions		X	<u> </u>			
		the sample results?	r the SDL to minimize the matrix interference effects on	X				
		Is the laboratory NELAC-accredited under the Texas La and methods associated with this laboratory data pack	aboratory Accreditation Program for the analytes, matrices age?	Х				
shoul 2. O 3. NA	d be re = orga A = Not	ntified by the letter "R" must be included in the laborato etained and made available upon request for the approp nic analyses; I = inorganic analyses (and general chemi ; applicable; reviewed:		ltems i	dentifie	ed by th	e letter	"S"

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

PROJECT: 11209891/02

L1281156

SDG:

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abor	ato	ry Name: Pace Analytical National	LRC Date: 11/11/2020 16:41					
Projec	ct N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1281156-01, 02, 03, 04,	05, 06, 07	7, 08, 0	9, 10, 1	1, 12 aı	nd 13
Reviev	wer	r Name: Mark W. Beasley	Prep Batch Number(s): WG1571230, WG1572590	and WG157	2605			
1 4	A ²	Description	•	Yes	No	NA ³	NR ⁴	ER#
1 (OI	Initial calibration (ICAL)						
		Were response factors and/or relative response fact	ors for each analyte within QC limits?	Х				
		Were percent RSDs or correlation coefficient criteria	met?	Х				
		Was the number of standards recommended in the i	method used for all analytes?	Х				
		Were all points generated between the lowest and h	highest standard used to calculate the curve?	Х				
		Are ICAL data available for all instruments used?		Х				
		Has the initial calibration curve been verified using a	n appropriate second source standard?	X				
2 (01	Initial and continuing calibration verification (ICCV ar	nd CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequ	Jency?	Х				
		Were percent differences for each analyte within the	e method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?		Х			Ì	1
		Was the absolute value of the analyte concentration	in the inorganic CCB < MDL?		1	Х	1	1
3 (0	Mass spectral tuning					•	•
		Was the appropriate compound for the method used	d for tuning?	X			T	
		Were ion abundance data within the method-require		X	1		1	1
4 (0	Internal standards (IS)					1	
	-	Were IS area counts and retention times within the r	nethod-required QC limits?	X	1	1	Г	1
5 0	01	Raw data (NELAC Section 5.5.10)		1 *	1	1	1	
	•	Were the raw data (for example, chromatograms, sp	ectral data) reviewed by an analyst?	X	1	1	1	T
		Were data associated with manual integrations flage		X				
6 0	0	Dual column confirmation			1		1	I
<u> </u>	•	Did dual column confirmation results meet the meth	od-required QC?		1	X	T	1
7 (0	Tentatively identified compounds (TICs)			1		1	L
/	<u> </u>	If TICs were requested, were the mass spectra and	TIC data subject to appropriate checks?		1	X	Г	r –
8		Interference Check Sample (ICS) results			1			
• ·		Were percent recoveries within method QC limits?			1	X	T	1
9 1	1	Serial dilutions, post digestion spikes, and method of	f standard additions		1		1	I
		Were percent differences, recoveries, and the linear			1	X	1	<u> </u>
10 0	01	Method detection limit (MDL) studies	ty within the QC limits specified in the method:				I	
		Was a MDL study performed for each reported analy	to2	X	1	1	1	r
		Is the MDL either adjusted or supported by the analy						
11 C	01	Proficiency test reports	315 01 DC35:	^	1	1	I	L
		Was the laboratory's performance acceptable on the	applicable proficiency tests or avaluation studies?	X	1	1	1	r
12 0	01	Standards documentation	applicable proficiency tests of evaluation studies:	^			I	
		Are all standards used in the analyses NIST-traceabl	a ar obtained from other appropriate sources?	X	1	1	T	r
13 (01		e or obtained nom other appropriate sources?	^	1		I	
		Compound/analyte identification procedures Are the procedures for compound/analyte identifica	tion documented?	X	1	T	T T	r –
14	0		tion documented:	^	1		I	
14 (01	Demonstration of analyst competency (DOC) Was DOC conducted consistent with NELAC Chapte	ж Г Э		1	1	1	1
	~	Is documentation of the analyst's competency up-to-						
15 (01	Verification/validation documentation for methods (N			1		1	1
10		Are all the methods used to generate the data docu	mented, verified, and validated, where applicable?	X	I	I		
16 (01	Laboratory standard operating procedures (SOPs)			1	1	-	
hould b	be re	Are laboratory SOPs current and on file for each me ntified by the letter "R" must be included in the labora etained and made available upon request for the appi nic analyses; I = inorganic analyses (and general che	nory data package submitted in the TRRP-required report optimate retention period.	t(s). Items i	dentifie	d by th	l e letter	"S"

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

PROJECT: 11209891/02

SDG: L1281156

Laboratory Name: Pace Analytical National	LRC Date: 11/11/2020 16:41
Project Name: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1281156-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1571230, WG1572590 and WG1572605
ER # ¹ Description	•

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 15:55	WG1572590	Tc
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 15:55	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 15:55	WG1572590	³ Ss
Total Xylene	0.000712	J	0.000510	0.00150	0.00150	1	11/07/2020 15:55	WG1572590	55
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 15:55	WG1572590	⁴ Cp

Ss
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

Released to Imaging: 01/11/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209891/02

SDG: L1281156 **I** 1

DATE/TIME: 11/11/20 16:41 PAGE: 10 of 30 Collected date/time: 10/30/20 10:45

SAMPLE RESULTS - 02 L1281156

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Volatile Organic Compounds (GC) by Method 8021B

		-,,								' <u> </u>
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch		Ср
Analyte	mg/l		mg/l	mg/l	mg/l		date / time			2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 16:18	WG1572590		Tc
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 16:18	WG1572590	L	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 16:18	WG1572590	1	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 16:18	WG1572590		5
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 16:18	WG1572590	ſ	⁴ Cn

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

Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 16:18	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 16:18	WG1572590	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 16:18	WG1572590	
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 16:18	WG1572590	4
									C
Semi Volatile Organic	Compound	ds (GC/MS	6) by Metho	od 8270C-S	SIM				
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	⁵⊤ı
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	⁶ Si
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	7
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	ÍQ
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	°G
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	9
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	Å
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	¹⁰ S
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 16:23	WG1571230	
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 16:23	WG1571230	
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 16:23	WG1571230	
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 16:23	WG1571230	
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 16:23	WG1571230	
(S) Nitrobenzene-d5	83.2				31.0-160		11/05/2020 16:23	WG1571230	
(S) 2-Fluorobiphenyl	105				48.0-148		11/05/2020 16:23	WG1571230	
(S) p-Terphenyl-d14	107				37.0-146		11/05/2020 16:23	WG1571230	

SDG: L1281156 DATE/TIME: 11/11/20 16:41 PAGE: 11 of 30 Collected date/time: 10/30/20 11:10

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— C
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 16:40	WG1572590	T
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 16:40	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 16:40	WG1572590	3
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 16:40	WG1572590	-
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 16:40	WG1572590	4
Semi Volatile Organic	Compound	ds (GC/MS	6) by Meth	od 8270C-S	SIM				

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 16:43	WG1571230	
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
ndeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 16:43	WG1571230	
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 16:43	WG1571230	
I-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 16:43	WG1571230	
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 16:43	WG1571230	
(S) Nitrobenzene-d5	83.7				31.0-160		11/05/2020 16:43	WG1571230	
(S) 2-Fluorobiphenyl	108				48.0-148		11/05/2020 16:43	WG1571230	
(S) p-Terphenyl-d14	129				37.0-146		11/05/2020 16:43	WG1571230	

SDG: L1281156

Collected date/time: 10/30/20 11:35

SAMPLE RESULTS - 04 L1281156

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— [C
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 17:02	WG1572590	Ťτ
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 17:02	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 17:02	WG1572590	³ Ss
Fotal Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 17:02	WG1572590	5
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 17:02	WG1572590	⁴ C

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 17:03	WG1571230
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 17:03	WG1571230
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:03	WG1571230
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 17:03	WG1571230
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 17:03	WG1571230
(S) Nitrobenzene-d5	84.2				31.0-160		11/05/2020 17:03	WG1571230
(S) 2-Fluorobiphenyl	112				48.0-148		11/05/2020 17:03	WG1571230
(S) p-Terphenyl-d14	143				37.0-146		11/05/2020 17:03	WG1571230

SDG: L1281156

Collected date/time: 10/30/20 12:00

SAMPLE RESULTS - 05 L1281156

ONE LAB. NAPage 226 of 261

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— [C
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 17:24	WG1572590	Τc
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 17:24	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 17:24	WG1572590	³ S
Fotal Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 17:24	WG1572590	5.
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 17:24	WG1572590	⁴ C
Semi Volatile Organic	Compound	ds (GC/MS	a) by Metho	od 8270C-9	SIM				

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
luoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 17:23	WG1571230
luorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
ndeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 17:23	WG1571230
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:23	WG1571230
-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 17:23	WG1571230
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 17:23	WG1571230
(S) Nitrobenzene-d5	84.7				31.0-160		11/05/2020 17:23	WG1571230
(S) 2-Fluorobiphenyl	112				48.0-148		11/05/2020 17:23	WG1571230
(S) p-Terphenyl-d14	144				37.0-146		11/05/2020 17:23	WG1571230

SDG: L1281156

Collected date/time: 10/30/20 12:20

SAMPLE RESULTS - 06 L1281156

ONE LAB. NAPage 227 of 261

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— [(
nalyte	mg/l		mg/l	mg/l	mg/l		date / time		2
enzene	U		0.000190	0.000500	0.000500	1	11/07/2020 17:47	WG1572590	
oluene	U		0.000412	0.00100	0.00100	1	11/07/2020 17:47	WG1572590	L
thylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 17:47	WG1572590	3
otal Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 17:47	WG1572590	
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 17:47	WG1572590	4

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 17:43	WG1571230
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 17:43	WG1571230
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 17:43	WG1571230
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 17:43	WG1571230
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 17:43	WG1571230
(S) Nitrobenzene-d5	84.7				31.0-160		11/05/2020 17:43	WG1571230
(S) 2-Fluorobiphenyl	113				48.0-148		11/05/2020 17:43	WG1571230
(S) p-Terphenyl-d14	132				37.0-146		11/05/2020 17:43	WG1571230

SDG: L1281156

Collected date/time: 10/30/20 12:40

SAMPLE RESULTS - 07 L1281156

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	- 0
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 18:09	WG1572590	[² T
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 18:09	WG1572590	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 18:09	WG1572590	3
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 18:09	WG1572590	-
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 18:09	WG1572590	4
Semi Volatile Organic	Compound	ts (GC/MS) by Meth	nd 8270C-S	SIM				

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 18:04	WG1571230	
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 18:04	WG1571230	
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:04	WG1571230	
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 18:04	WG1571230	
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 18:04	WG1571230	
(S) Nitrobenzene-d5	85.3				31.0-160		11/05/2020 18:04	WG1571230	
(S) 2-Fluorobiphenyl	111				48.0-148		11/05/2020 18:04	WG1571230	
(S) p-Terphenyl-d14	126				37.0-146		11/05/2020 18:04	WG1571230	

SDG: L1281156

Received by OCD: 4/5/2021 1:40:32 PM

Collected date/time: 10/30/20 12:50

SAMPLE RESULTS - 08 L1281156

ONE LAB. NAPage 229 of 261

Volatile Organic Compounds (GC) by Method 8021B

									l' (l'Cn
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	(Ch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2	
Benzene	0.00292		0.000190	0.000500	0.000500	1	11/07/2020 18:31	WG1572590		Тс
Toluene	0.000566	J	0.000412	0.00100	0.00100	1	11/07/2020 18:31	WG1572590		
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 18:31	WG1572590	з	Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 18:31	WG1572590	`	5
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		11/07/2020 18:31	WG1572590	4	Cr

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Acenaphthene	0.0000230	J	0.0000190	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Dibenzofuran	0.000308		0.0000191	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 18:24	WG1571230
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 18:24	WG1571230
Phenanthrene	0.0000352	J	0.0000180	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:24	WG1571230
1-Methylnaphthalene	0.000284		0.0000687	0.000250	0.000250	1	11/05/2020 18:24	WG1571230
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 18:24	WG1571230
(S) Nitrobenzene-d5	86.8				31.0-160		11/05/2020 18:24	WG1571230
(S) 2-Fluorobiphenyl	107				48.0-148		11/05/2020 18:24	WG1571230
(S) p-Terphenyl-d14	120				37.0-146		11/05/2020 18:24	WG1571230

SDG: L1281156 DATE/TIME: 11/11/20 16:41

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Collected date/time: 10/30/20 13:00

SAMPLE RESULTS - 09

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.00282		0.000190	0.000500	0.000500	1	11/07/2020 02:44	WG1572605	Ťc
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 02:44	WG1572605	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 02:44	WG1572605	³ Ss
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 02:44	WG1572605	55
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		11/07/2020 02:44	WG1572605	4

55
⁴ Cn
⁵Tr
⁶ Sr
⁷ Qc
[°] Gl
⁹ Al
¹⁰ Sc

SDG: L1281156 DATE/TIME: 11/11/20 16:41

1E: ::41 PAGE: 18 of 30

Reveliged by OCD: 4/5/2021 1:40:32 PM

Collected date/time: 10/30/20 13:15

SAMPLE RESULTS - 10

ONE LAB. NAPage 231 of 261

Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.00585		0.000190	0.000500	0.000500	1	11/07/2020 03:06	WG1572605	T
Toluene	0.000519	J	0.000412	0.00100	0.00100	1	11/07/2020 03:06	WG1572605	
Ethylbenzene	0.00243		0.000160	0.000500	0.000500	1	11/07/2020 03:06	WG1572605	³ S
Total Xylene	0.0112		0.000510	0.00150	0.00150	1	11/07/2020 03:06	WG1572605	5
(S) a.a.a-Trifluorotoluene(PID)	101				79.0-125		11/07/2020 03:06	WG1572605	
									⁴ C

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	0.000285		0.0000190	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Chrysene	0.000144		0.0000179	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Dibenzofuran	0.000825		0.0000191	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Fluoranthene	0.0000377	J	0.0000270	0.000100	0.000100	1	11/05/2020 18:44	WG1571230
Fluorene	0.000425		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Naphthalene	0.00102		0.0000917	0.000250	0.000250	1	11/05/2020 18:44	WG1571230
Phenanthrene	0.000384		0.0000180	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
Pyrene	0.000131		0.0000169	0.0000500	0.0000500	1	11/05/2020 18:44	WG1571230
1-Methylnaphthalene	0.00181		0.0000687	0.000250	0.000250	1	11/05/2020 18:44	WG1571230
2-Methylnaphthalene	0.00151		0.0000674	0.000250	0.000250	1	11/05/2020 18:44	WG1571230
(S) Nitrobenzene-d5	85.3				31.0-160		11/05/2020 18:44	WG1571230
(S) 2-Fluorobiphenyl	114				48.0-148		11/05/2020 18:44	WG1571230
(S) p-Terphenyl-d14	118				37.0-146		11/05/2020 18:44	WG1571230

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SAMPLE RESULTS - 11

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	0.562		0.00190	0.000500	0.00500	10	11/07/2020 09:20	WG1572605	É Tc
Toluene	U		0.00412	0.00100	0.0100	10	11/07/2020 09:20	WG1572605	
Ethylbenzene	0.0250		0.00160	0.000500	0.00500	10	11/07/2020 09:20	WG1572605	³ Ss
Total Xylene	0.0218		0.00510	0.00150	0.0150	10	11/07/2020 09:20	WG1572605	55
(S) a,a,a-Trifluorotoluene(PID)	100				79.0-125		11/07/2020 09:20	WG1572605	⁴ Cr

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	0.000123		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Acenaphthene	0.000212		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Acenaphthylene	0.000114		0.0000171	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Dibenzofuran	0.00189		0.0000191	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 19:04	WG1571230
Fluorene	0.0000461	J	0.0000169	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
ndeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Naphthalene	0.00687		0.0000917	0.000250	0.000250	1	11/05/2020 19:04	WG1571230
Phenanthrene	0.000495		0.0000180	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 19:04	WG1571230
-Methylnaphthalene	0.00358		0.0000687	0.000250	0.000250	1	11/05/2020 19:04	WG1571230
2-Methylnaphthalene	0.00384		0.0000674	0.000250	0.000250	1	11/05/2020 19:04	WG1571230
(S) Nitrobenzene-d5	69.5				31.0-160		11/05/2020 19:04	WG1571230
(S) 2-Fluorobiphenyl	114				48.0-148		11/05/2020 19:04	WG1571230
(S) p-Terphenyl-d14	121				37.0-146		11/05/2020 19:04	WG1571230

SDG: L1281156

Collected date/time: 10/30/20 00:00

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	— [C
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		2
Benzene	U		0.000190	0.000500	0.000500	1	11/07/2020 03:28	WG1572605	Ť
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 03:28	WG1572605	
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 03:28	WG1572605	³ S
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 03:28	WG1572605	5
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		11/07/2020 03:28	WG1572605	⁴ C
Semi Volatile Organic	Compound	ds (GC/MS	i) by Meth	nd 8270C-9	SIM				

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

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 19:24	WG1571230	
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/05/2020 19:24	WG1571230	
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/05/2020 19:24	WG1571230	
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/05/2020 19:24	WG1571230	
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/05/2020 19:24	WG1571230	
(S) Nitrobenzene-d5	85.0				31.0-160		11/05/2020 19:24	WG1571230	
(S) 2-Fluorobiphenyl	108				48.0-148		11/05/2020 19:24	WG1571230	
(S) p-Terphenyl-d14	133				37.0-146		11/05/2020 19:24	WG1571230	

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Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch	
Analyte	mg/l		mg/l	mg/l	mg/l		date / time		Ē
Benzene	0.00555		0.000190	0.000500	0.000500	1	11/07/2020 03:50	WG1572605	
Toluene	0.000495	J	0.000412	0.00100	0.00100	1	11/07/2020 03:50	WG1572605	L
Ethylbenzene	0.00233		0.000160	0.000500	0.000500	1	11/07/2020 03:50	WG1572605	:
Total Xylene	0.0107		0.000510	0.00150	0.00150	1	11/07/2020 03:50	WG1572605	
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		11/07/2020 03:50	WG1572605	
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Semi Volatile Organic Compounds $\,$ (GC/MS) by Method 8270C-SIM $\,$

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	0.000250		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Acenaphthene	0.0000964		0.0000190	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Chrysene	0.000145		0.0000179	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Dibenzofuran	0.000780		0.0000191	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/05/2020 19:45	WG1571230
Fluorene	0.000418		0.0000169	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Naphthalene	0.000970		0.0000917	0.000250	0.000250	1	11/05/2020 19:45	WG1571230
Phenanthrene	0.000359		0.0000180	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
Pyrene	0.000110		0.0000169	0.0000500	0.0000500	1	11/05/2020 19:45	WG1571230
1-Methylnaphthalene	0.00174		0.0000687	0.000250	0.000250	1	11/05/2020 19:45	WG1571230
2-Methylnaphthalene	0.00136		0.0000674	0.000250	0.000250	1	11/05/2020 19:45	WG1571230
(S) Nitrobenzene-d5	87.9				31.0-160		11/05/2020 19:45	WG1571230
(S) 2-Fluorobiphenyl	114				48.0-148		11/05/2020 19:45	WG1571230
(S) p-Terphenyl-d14	112				37.0-146		11/05/2020 19:45	WG1571230

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QUALITY CONTROL SUMMARY L1281156-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R3590995-3 11/07/2	20 10:39			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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) R3590995-1 11/07/20 09:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0531	106	77.0-122	
Toluene	0.0500	0.0549	110	80.0-121	
Ethylbenzene	0.0500	0.0562	112	80.0-123	
Total Xylene	0.150	0.169	113	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			103	79.0-125	

L1280890-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1280890-01 11/07/2	0 11:01 • (MS) R3	3590995-4 11/0	07/20 18:53 •	(MSD) R359099	95-5 11/07/20	19:26						
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	U	0.0534	0.0499	107	99.8	1	10.0-160			6.78	21
Toluene	0.0500	U	0.0497	0.0478	99.4	95.6	1	12.0-148			3.90	21
Ethylbenzene	0.0500	U	0.0500	0.0486	100	97.2	1	22.0-149			2.84	21
Total Xylene	0.150	U	0.149	0.144	99.3	96.0	1	13.0-155			3.41	21
(S) a,a,a-Trifluorotoluene(PID)					104	103		79.0-125				

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QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3591558-2 11/07/2	20 02:22			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	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)	101			79.0-125

Laboratory Control Sample (LCS)

(LCS) R3591558-1 11/07/20 00:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0426	85.2	77.0-122	
Toluene	0.0500	0.0468	93.6	80.0-121	
Ethylbenzene	0.0500	0.0515	103	80.0-123	
Total Xylene	0.150	0.147	98.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			100	79.0-125	

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SDG: L1281156 DATE/TIME: 11/11/20 16:41 PAGE: 24 of 30 Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

QUALITY CONTROL SUMMARY L1281156-02,03,04,05,06,07,08,10,11,12,13

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Method Blank (MB)

(MB) R3590001-3 11/05	/20 14:01						
	MB Result	MB Qualifier	MB MDL	MB RDL			
Analyte	mg/l		mg/l	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	87.0			31.0-160			
(S) 2-Fluorobiphenyl	109			48.0-148			
(S) p-Terphenyl-d14	136			37.0-146			

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

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Dibenzofuran	0.00200	0.00225	0.00216	112	108	67.0-134			4.08	20
Anthracene	0.00200	0.00216	0.00222	108	111	67.0-150			2.74	20
Acenaphthene	0.00200	0.00231	0.00225	115	112	65.0-138			2.63	20
Acenaphthylene	0.00200	0.00228	0.00224	114	112	66.0-140			1.77	20
Benzo(a)anthracene	0.00200	0.00214	0.00208	107	104	61.0-140			2.84	20
Benzo(a)pyrene	0.00200	0.00186	0.00183	93.0	91.5	60.0-143			1.63	20
Benzo(b)fluoranthene	0.00200	0.00246	0.00245	123	122	58.0-141			0.407	20
Benzo(g,h,i)perylene	0.00200	0.00217	0.00203	108	102	52.0-153			6.67	20
Benzo(k)fluoranthene	0.00200	0.00242	0.00222	121	111	58.0-148			8.62	20
Chrysene	0.00200	0.00223	0.00222	111	111	64.0-144			0.449	20
Dibenz(a,h)anthracene	0.00200	0.00186	0.00175	93.0	87.5	52.0-155			6.09	20

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PROJECT: 11209891/02

SDG: L1281156 DATE/TIME: 11/11/20 16:41

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QUALITY CONTROL SUMMARY 1281156-02,03,04,05,06,07,08,10,11,12,13

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

(LCS) R3590001-1 11/05	/20 13:20 • (LCSE	D) R3590001-2	2 11/05/20 13:40	C							
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%	
Fluoranthene	0.00200	0.00208	0.00210	104	105	69.0-153			0.957	20	
Fluorene	0.00200	0.00230	0.00225	115	112	64.0-136			2.20	20	
Indeno(1,2,3-cd)pyrene	0.00200	0.00173	0.00158	86.5	79.0	54.0-153			9.06	20	
Naphthalene	0.00200	0.00225	0.00220	112	110	61.0-137			2.25	20	
Phenanthrene	0.00200	0.00213	0.00210	106	105	62.0-137			1.42	20	
Pyrene	0.00200	0.00230	0.00220	115	110	60.0-142			4.44	20	
1-Methylnaphthalene	0.00200	0.00246	0.00241	123	120	66.0-142			2.05	20	
2-Methylnaphthalene	0.00200	0.00228	0.00223	114	111	62.0-136			2.22	20	
(S) Nitrobenzene-d5				85.0	82.0	31.0-160					
(S) 2-Fluorobiphenyl				113	109	48.0-148					
(S) p-Terphenyl-d14				124	119	37.0-146					

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Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

J

The identification of the analyte is acceptable; the reported value is an estimate.

SDG: L1281156

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS



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

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky 16	90010
Kentucky ²	16
Louisiana	Al30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Dhio-VAP	CL0069
Oklahoma	9915
Dregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Гехаs	T104704245-18-15
「exas ⁵	LAB0152
Jtah	TN00003
/ermont	VT2006
/irginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	Δ2Ι Δ

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891/02

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		Billing Information:	1			Analysis / Contair	er / Preservative		Chain of Custody	Page of 🤰
Plains All American, LP	- GHD	Camille Bryant 10 Desta Dr., Ste. 550E Midland, TX 79705	Pres Chk				2.5			alytical [®]
Midland, TX 79703	E.F	Midiand, IX 79705								
Report to: Becky Haskell		Email To: becky.haskell@ghd.com;glenn.qui	inney@ghd.co		1000				12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858	
Project Description: Plains Darr 2 SRS-LF 1999-62	City/State Collected:	ovincton, NM PT	Please Circle:		E				Phone: 800-767-5859 Fax: 615-758-5859	
Phone: 432-250-7917	Client Project # 11209891/02	Lab Project # PLAINSGHD-1120	~		NoPres-WT				sdg # 128 A002	1156
Collected by (print):	Site/Facility ID #	P.D.#		CI	Amb-N				Acctnum: PLAINS	
Collected by (signature):	Rash?, (USb MUST Be	allow the second s		un -	400,0				Franciska Tile 200 Brislogi - P.00561	
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MW-10R	GW	12	20	X	P					- 06
MW-13	GW	12	40	V	V	al tanki		Latin		07
MW-3R	GW		50 1	X	Ø			0.4		-08
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elinquished (Signature)	10/30/2	0 1330 AAA	1-1	2-20	14:30	E Shan Receive	HCL / Meoh TBR			æ _
eknowished by : (Signature)	Date: 1 11-2-20	Time: Received by:	5	CALCULAR ST	1	Temp: °C 0.3-,1=0.2 cl	Bottles Received:	lf preserv	vation required by Login: E	
mudaraneway (aRugrane)	Date:	Time: Received for	b by: (Signatur	e)	R	Date:	Time:	oriold:		Condition: NCF / OK
ed to Imaging: 1/11/2022 3:45:	07 PM	7-1	LAND THE PARTY		C Brits Barris	11/3/20	173			

Received by OCD: 4/5/2021 1:40:32 PM Page 242_of 261 Analysis / Container / Preservative Chain of Custody Page K of K Billing Information: Plains All American, LP - GHD Pres **Camille Bryant** Chk Pace Analytical * 10 Desta Dr., Ste. 550E 2135 S Loop 250 W Midland, TX 79705 Midland, TX 79703 Report to: Email To: 12065 Lebanon Rd Mount Juliet, TN 37122 becky.haskell@ghd.com;glenn.quinney@ghd.co **Becky Haskell** Phone: 615-758-5858 Phone: 800-767-5859 Please Circle: Project Description: City/State WT Fax: 615-758-5859 MIT CT ET Plains Darr 2 SRS-LF 1999-62 Collected: AUMTON Client Project # Phone: 432-250-7917 LAINS GHD-11209891 11209891/02 00 到程/均定用数 10 # AINSGHD E anno P805693 Same Day Five Day K Million I 2 DTW 10/3020 1330 RW-12 avay 6 P 66 GW GW Sample Receipt Checklist COC Seal Present/Intact: Y If Applicable Fritting N VOA Zero Headspace: 🛃 N COC Signed/Accurate: Bottles arrive intact: Correct bottles used: N Pres.Correct/Check: (Y N 1-angle Mary N Sufficient volume sent: 🗸 RAD Screen <0.5 mR/hr: N Remarks: 0 AIR - Air FF - Filter 1-Julia Bargalla 11-2-20 (4:3) 11/3/20 y: (Signature) Relinquished by : (Signature) Time: 8800 NCF / OK Released to Imaging: 1/11/2022 3:45:07 PM

Received by OCD: 4/5/2021 1:40:32 PM



ANALYTICAL REPORT

Plains All American, LP - GHD

Sample Delivery Group:L1289351Samples Received:11/24/2020Project Number:11209891/01Description:Plains Darr 2 SRS-LF 1999-62Site:DARR ANGELL 1/2Report 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.

Released to Imaging: 1/11/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891/01

SDG: L1289351 DATE/TIME: 11/30/20 20:18

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

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Tr: TRRP Summary	5
TRRP form R	6
TRRP form S	7
TRRP Exception Reports	8
Sr: Sample Results	9
DARR #2-SYSTEM OFF L1289351-01	9
DARR #2-SYSTEM ON L1289351-02	10
DARR #1-SYSTEM OFF L1289351-03	11
DARR #1-SYSTEM ON L1289351-04	12
Qc: Quality Control Summary	13
Volatile Organic Compounds (MS) by Method M18-Mod	13
GI: Glossary of Terms	15
Al: Accreditations & Locations	16
Sc: Sample Chain of Custody	17

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

Released to Imaging: 01/11/2022 3:45:07 PM Plains All American, LP - GHD

PROJECT: 11209891/01

SDG: L1289351

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SAMPLE SUMMARY

ONE LAB. NAPage 245 of 261

Ср

Тс

Ss

Cn

Ъ

Sr

Qc

GI

ΆI

Sc

			Collected by	Collected date/time	Received da	te/time
DARR #2-SYSTEM OFF L1289351-01 Air			Zach Comino	11/23/20 09:00	11/24/20 09:	30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1582368	20	11/25/20 13:44	11/25/20 13:44	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1583193	100	11/27/20 19:54	11/27/20 19:54	MBF	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DARR #2-SYSTEM ON L1289351-02 Air			Zach Comino	11/23/20 09:15	11/24/20 09:	30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1582368	100	11/25/20 14:22	11/25/20 14:22	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1583193	2000	11/27/20 20:34	11/27/20 20:34	MBF	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DARR #1-SYSTEM OFF L1289351-03 Air			Zach Comino	11/23/20 10:00	11/24/20 09:	30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1583193	80	11/27/20 21:14	11/27/20 21:14	MBF	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
DARR #1-SYSTEM ON L1289351-04 Air			Zach Comino	11/23/20 10:15	11/24/20 09:	30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (MS) by Method M18-Mod	WG1582368	20	11/25/20 15:43	11/25/20 15:43	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1583193	200	11/27/20 21:54	11/27/20 21:54	MBF	Mt. Juliet, TN

SDG: L1289351 DATE/TIME:

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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.

h

Mark W. Beasley Project Manager

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SDG: L1289351 DATE/TIME: 11/30/20 20:18

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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 Name: Pace Analytical National			LRC Date: 11/30/2020 20:18						
Proje	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1289351-01, 02, 03 and 04						
Revi	ewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1582368 and WG1583193						
# ¹	A ²	2 Description Yes No					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			Ι		
		Were all departures from standard conditions described	d in an exception report?			Х			
R2	OI	Sample and quality control (QC) identification	· · ·				•		
		Are all field sample ID numbers cross-referenced to the	alaboratory ID numbers?	Х	1	1	1		
		Are all laboratory ID numbers cross-referenced to the c	•	X					
R3	OI	Test reports			1	•			
1.0	0	Were all samples prepared and analyzed within holding	1 times?	X	1	Т	<u> </u>		
		Other than those results < MQL, were all other raw values bracketed by calibration standards?							
		Were calculations checked by a peer or supervisor?					<u> </u>		
		Were all analyte identifications checked by a peer or su	•	X					
		Were sample detection limits reported for all analytes r		X					
		Were all results for soil and sediment samples reported		X			ļ		
		Were % moisture (or solids) reported for all soil and sec				Х			
		Were bulk soils/solids samples for volatile analysis extr	acted with methanol per SW846 Method 5035?			Х			
		If required for the project, are TICs reported?				Х			
R4	0	Surrogate recovery data							
		Were surrogates added prior to extraction?		X					
		Were surrogate percent recoveries in all samples within	n the laboratory QC limits?	X					
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?		X	1	1			
		Were blanks analyzed at the appropriate frequency?		X					
		Were method blanks taken through the entire analytica	I process including preparation and if applicable						
		cleanup procedures?	i process, including preparation and, il applicable,	X					
		Were blank concentrations < MQL?		X					
R6	OI	Laboratory control samples (LCS):							
	0.	Were all COCs included in the LCS?		X	1	1	1		
		Was each LCS taken through the entire analytical proce	edure including prep and cleanup steps?	X					
		Were LCSs analyzed at the required frequency?	courte, including prop and cleanup stops.	X					
		Were LCS (and LCSD, if applicable) %Rs within the labo	rator (OC limite?	X					
			e laboratory's capability to detect the COCs at the MDL						
		used to calculate the SDLs?	e laboratory's capability to detect the COCs at the MDL	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		r –	1	X	r –		
		· · · ·							
		Were MS/MSD analyzed at the appropriate frequency?	ton (OC limits?			X X			
		Were MS (and MSD, if applicable) %Rs within the labora	atory QC limits?						
50		Were MS/MSD RPDs within laboratory QC limits?				Х			
R8	OI	Analytical duplicate data	1	r –	r –		r –		
		Were appropriate analytical duplicates analyzed for each		 		X			
		Were analytical duplicates analyzed at the appropriate		ļ	<u> </u>	Х	ļ		
		Were RPDs or relative standard deviations within the la	boratory QC limits?			Х			
R9	OI	Method quantitation limits (MQLs):		r —			·		
		Are the MQLs for each method analyte included in the	laboratory data package?	X					
		Do the MQLs correspond to the concentration of the lo		X					
		Are unadjusted MQLs and DCSs included in the laboration	tory data package?	Х					
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions n	oted in this LRC and ER?	Х					
		Was applicable and available technology used to lower	the SDL to minimize the matrix interference effects on	X					
		the sample results?							
			boratory Accreditation Program for the analytes, matrices	X					
4 11		and methods associated with this laboratory data pack	•		<u> </u>	<u> </u>	L	"	
		ntified by the letter "R" must be included in the laborator etained and made available upon request for the approp	y data package submitted in the TRRP-required report(s).	items i	dentifie	ed by the	e letter	5″	
		inic analyses; I = inorganic analyses (and general chemis							
3. NA	. = No	t applicable;							
4. NR	= Not	t reviewed;							

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

PROJECT: 11209891/01

Labo	orato	ry Name: Pace Analytical National	LRC Date: 11/30/2020 20:18					
Proj	ect N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1289351-01, 02, 03 and 04	Jumber: L1289351-01, 02, 03 and 04				
Revi	ewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1582368 and WG1583193					
f1	A ²	Description		Yes	No	NA ³	NR⁴	ER# ⁵
1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors	s for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria m	et?	Х				
		Was the number of standards recommended in the me	thod used for all analytes?	X				
		Were all points generated between the lowest and hig	hest 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				
2	OI	Initial and continuing calibration verification (ICCV and	CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequer	ncy?	X				
		Were percent differences for each analyte within the m	nethod-required QC limits?	X			1	
		Was the ICAL curve verified for each analyte?		X			1	
		Was the absolute value of the analyte concentration in	the inorganic CCB < MDL?			Х	1	
3	0	Mass spectral tuning					•	
		Was the appropriate compound for the method used for	or tunina?	X	1		I	
		Were ion abundance data within the method-required	•	X			1	
4	0	Internal standards (IS)						
		Were IS area counts and retention times within the me	thod-required QC limits?	X	Г		I	
5	OI	Raw data (NELAC Section 5.5.10)		1 ~		I	1	
•	0.	Were the raw data (for example, chromatograms, spec	tral data) reviewed by an analyst?	X	1	I	1	<u>г</u>
		Were data associated with manual integrations flagged		X				
6	0	Dual column confirmation				1	1	I
<u> </u>	<u> </u>	Did dual column confirmation results meet the method	-required QC?	T	T T	X	1	1
7	0	Tentatively identified compounds (TICs)		1			1	
	<u> </u>	If TICs were requested, were the mass spectra and TIC	data subject to appropriate checks?	1	1	X	1	I
8	1	Interference Check Sample (ICS) results					1	I
•		Were percent recoveries within method QC limits?		T	T	X	L	I
9	1	Serial dilutions, post digestion spikes, and method of s	tandard additions	1			1	
5		Were percent differences, recoveries, and the linearity		1	T	X	1	r –
10	OI	Method detection limit (MDL) studies	wain the de limits speened in the method.	1			1	
		Was a MDL study performed for each reported analyte	?	X	T	I	I	<u> </u>
		Is the MDL either adjusted or supported by the analysi		X	<u> </u>			
11	OI	Proficiency test reports			I	I	L	
		Was the laboratory's performance acceptable on the a	nnlicable proficiency tests or evaluation studies?	X	1	Г — —	1	<u> </u>
12	OI	Standards documentation	ppicable proficiency tests of evaluation studies:		I	L	I	
12		Are all standards used in the analyses NIST-traceable	or obtained from other appropriate sources?	X	1	1	r –	1
13	OI	Compound/analyte identification procedures	of obtained from other appropriate sources:		I		I	
15		Are the procedures for compound/analyte identification	n documented?	X	1	1	1	1
14	OI	Demonstration of analyst competency (DOC)	n documented:			1	I	L
14		Was DOC conducted consistent with NELAC Chapter 5	2	X	T T	1	1	1
		Is documentation of the analyst's competency up-to-da		x x				
15		Verification/validation documentation for methods (NE		L ^			L	
10	OI	Are all the methods used to generate the data docume		X	-	-	-	1
16			enteu, vermeu, anu vanuateu, where applicable?		L		L	I
16	OI	Laboratory standard operating procedures (SOPs)			1	1	r	r —
		Are laboratory SOPs current and on file for each metho		X	<u> </u>	L	L	
hould 2. O = 8. NA 4. NR	d be r = orga x = No t = Not	etained and made available upon request for the approp inic analyses; I = inorganic analyses (and general chemi t applicable; t reviewed;			uentitie	u by th	e letter	2

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

ER # ¹	Description	
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1582368 and WG1583193
Project N	lame: Plains Darr 2 SRS-LF 1999-62	Laboratory Job Number: L1289351-01, 02, 03 and 04
Laborato	ry Name: Pace Analytical National	LRC Date: 11/30/2020 20:18

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

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.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;
 NR = Not reviewed;

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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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
enzene	71-43-2	78.10	20.0	63.9	2060	6580		100	WG1583193
luene	108-88-3	92.10	50.0	188	2300	8660		100	WG1583193
hylbenzene	100-41-4	106	4.00	17.3	596	2580		20	WG1582368
&p-Xylene	1330-20-7	106	8.00	34.7	1200	5200		20	WG1582368
ylene	95-47-6	106	4.00	17.3	379	1640		20	WG1582368
thyl tert-butyl ether	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG1582368
H (GC/MS) Low Fraction	8006-61-9	101	20000	82600	186000	768000		100	WG1583193
S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1582368
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.7				WG1583193

SDG: L1289351 DATE/TIME: 11/30/20 20:18

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
nalyte			ppbv	ug/m3	ppbv	ug/m3			
enzene	71-43-2	78.10	400	1280	24400	77900		2000	WG1583193
oluene	108-88-3	92.10	1000	3770	23500	88500		2000	WG1583193
thylbenzene	100-41-4	106	20.0	86.7	2890	12500		100	WG1582368
n&p-Xylene	1330-20-7	106	40.0	173	4820	20900		100	WG1582368
Xylene	95-47-6	106	20.0	86.7	1320	5720		100	WG1582368
ethyl tert-butyl ether	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG1582368
H (GC/MS) Low Fraction	8006-61-9	101	400000	1650000	2230000	9210000		2000	WG1583193
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1582368
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.2				WG1583193

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	16.0	51.1	603	1930		80	WG1583193
Toluene	108-88-3	92.10	40.0	151	1000	3770		80	WG1583193
Ethylbenzene	100-41-4	106	16.0	69.4	234	1010		80	WG1583193
m&p-Xylene	1330-20-7	106	32.0	139	492	2130		80	WG1583193
o-Xylene	95-47-6	106	16.0	69.4	154	668		80	WG1583193
lethyl tert-butyl ether	1634-04-4	88.10	16.0	57.7	ND	ND		80	WG1583193
PH (GC/MS) Low Fraction	8006-61-9	101	16000	66100	72400	299000		80	WG1583193
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.8				WG1583193

SDG: L1289351 DATE/TIME: 11/30/20 20:18

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Volatile Organic Compounds (MS) by Method M18-Mod

	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Analyte			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	4.00	12.8	1480	4730		20	WG1582368
luene	108-88-3	92.10	100	377	2440	9190		200	WG1583193
hylbenzene	100-41-4	106	4.00	17.3	599	2600		20	WG1582368
n&p-Xylene	1330-20-7	106	8.00	34.7	1240	5380		20	WG1582368
Xylene	95-47-6	106	4.00	17.3	401	1740		20	WG1582368
ethyl tert-butyl ether	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG1582368
PH (GC/MS) Low Fraction	8006-61-9	101	40000	165000	176000	727000		200	WG1583193
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1582368
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.3				WG1583193

Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3597506-3	11/25/20 10:09

(=)				
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	94.7			60.0-140

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

(LCS) R3597506-1 11/25/20 08:46 • (LCSD) R3597506-2 11/25/20 09:29										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	4.18	4.35	111	116	70.0-130			3.99	25
Benzene	3.75	4.39	4.34	117	116	70.0-130			1.15	25
Ethylbenzene	3.75	4.41	4.39	118	117	70.0-130			0.455	25
m&p-Xylene	7.50	9.22	9.11	123	121	70.0-130			1.20	25
o-Xylene	3.75	4.56	4.57	122	122	70.0-130			0.219	25
(S) 1,4-Bromofluorobenzene				96.7	95.6	60.0-140				

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Volatile Organic Compounds (MS) by Method M18-Mod

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3598490-3 11/	27/20 10:22
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	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.500
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	91.4			60.0-140

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

(LCS) R3598490-1 11/27/20 08:57 • (LCSD) R3598490-2 11/27/20 09:41										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ppbv	ppbv	ppbv	%	%	%			%	%
MTBE	3.75	4.31	4.28	115	114	70.0-130			0.698	25
Benzene	3.75	4.11	4.09	110	109	70.0-130			0.488	25
Toluene	3.75	4.25	4.22	113	113	70.0-130			0.708	25
Ethylbenzene	3.75	4.18	4.09	111	109	70.0-130			2.18	25
m&p-Xylene	7.50	8.71	8.62	116	115	70.0-130			1.04	25
o-Xylene	3.75	4.27	4.29	114	114	70.0-130			0.467	25
TPH (GC/MS) Low Fraction	203	212	212	104	104	70.0-130			0.000	25
(S) 1,4-Bromofluorobenzene				93.0	92.7	60.0-140				

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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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1289351 DATE/TIME: 11/30/20 20:18

Received by OCD: 4/5/2021 1:40:32 PMACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
ldaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ¹⁴	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

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

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

Our Locations

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



Released to Imaging: 1/1/2022 3:45:07 PM Plains All American, LP - GHD PROJECT: 11209891/01 SDG: L1289351 DATE/TIME: 11/30/20 20:18

eived by OCD: 4/5/2021 1:40:	32 PM		Billing Infor	mation:				-	Analysis /	Containe	er / Preserva	tive		Chain of C	ustody	Page 259 0	
Plains All American, LP - GHD 2135 S Loop 250 W Midland, TX 79703		Camille Bryant 10 Desta Dr., Ste. 550E Midland, TX 79705 Email To: becky.haskell@ghd.com;glenn.quinney@ghd.co											- / F.	ace A	nalytical [®] er for Testing & Innoval		
eport to: ecky Haskell												12065 Leba Mount Julie Phone: 615	et, TN 3712 -758-5858	KANKES !!			
Project Description: Plains Darr 2 SRS-LF 1999-62		City/State Collected:	-		Please Cir PT MT C	rcle:								Phone: 800 Fax: 615-75	8-5859		
hone: 432-250-7917	Client Project 11209891/	#		Lab Project # PLAINSGHD-	11209891									SDG #	(1) 111	189351	
Collected by (print):	Site/Facility ID	Angell	1+2	P.O. #			. Li							Acctnum: PLAINSGHD Template: T173721			
mmediately Packed on Ice N Y	Same Da Next Da Two Day	Rush? (Lab/MUST Be Notified) Same Day Five Day S Day (Rad Only) S Day (Rad Only) Two Day 10 Day (Rad Only) Three Day 10 Day (Rad Only)				No.	MOD Tedlar							PM: 134	- Mark	P795997 Mark W. Beasley 3 20 M ia: FedEX Ground	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	M18-MOD							Rema		Sample # (lab o	
Dave # 2. System of	0	Air		112320	0900	12	Y										
Darr #2. System ou		Air	112	120 0914	HEARS.	2	Q										
Dar #1. Sistem off	2	Air		112320		2	V										
Darr # 1 - System on		Air		112320	1015	2	X								-	0	
						-											
						-											
Matrix: S - Soil AIR - Air F - Filter SW - Groundwater B - Bioassay WW - WasteWater	Remarks:							pH Temp COC Seal COC Sign Flow Other Bottles Correct					al Present/In gned/Accurate s arrive inta t bottles use	ample Receipt Checklist Present/Intact: NP y ed/Accurate: arrive intact: Y bottles used:			
DW - Drinking Water DT - Other	Samples returned via: UPSFedExCourierT				Tracking# 9186 2496			5	0846 Trip Blank Received: Yes / No			Sufficient volume sent: <u>Y</u> <u>If Applicable</u> VOA Zero Headspace: <u>Y</u> Preservation Correct/Checked: <u>Y</u>					
Relinquished by: (Signature)	11.	nte: 12320	Time		ved by: (Signat	ture)			Trip Blar		HCLY TBR	MeoH	RAD Sc	reen <0.5 mR,	/hr:	Z¥.	
Relinquished by : (Signature)		ate:	Time		ved by: (Signat	ture)			Temp:	~ ~	Bottles Re	ceived:	If preser	vation required	by Logi	n: Date/Time	
Relinquished by : (Signature)	Di	ate:	Time	: Recei	ved for lab by:	(Signat	ture)		Date: //2	19/2	Time:	30	Hold:			Condition	

Received by OCD: 4/5/2021 1:40:32 PM



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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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 22855

CONDITIONS							
Operator:	OGRID:						
PLAINS MARKETING L.P.	34053						
333 Clay St, Ste 1600	Action Number:						
Houston, TX 77002	22855						
	Action Type:						
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)						

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 Annual Groundwater Monitoring Report: Content satisfactory Contractor recommendations approved by OCD and are as follows; 1. Continue NMOCD-approved quarterly and semi-annual groundwater monitoring events 2. Continue annual sampling for PAHs during the fourth quarterly event according to directives of NMOCD. This will include RW-11, RW-12 and all wells installed during 2020 which are not impacted by LNAPL 3. Continue remediation of the soil profile and groundwater by operating the trailer mounted soil vapor extraction system. Gaseous hydrocarbon emissions will be sampled quarterly to calculate emission rates and total emissions 4. Submit the Annual Monitoring Report to the OCD no later than March 31, 2022.	1/11/2022