2019 ANNUAL GROUNDWATER MONITORING REPORT

Vacuum to Jal 14” Mainline #3
Lea County, New Mexico
UL-A, Section 35, T21S, R37E
NMOCD No.: 1R-455
Plains SRS No.: 2003-00117

PREPARED FOR

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Information

On May 8, 2003, a 14-inch steel pipeline at the EOTT Energy LLC (EOTT) Vacuum to Jal 14" Mainline # 3 Site (Vac to Jal #3, Site), SRS No. 2003-00117, released approximately three (3) barrels (bbls) of crude oil into the subsurface. The pipeline is currently owned by Plains Pipeline, L.P. (Plains). The Site is located in unit letter A, NE¼ of the NE¼, Section 35, Township 21S, Range 37E, or more specifically at latitude 32°26'32.67" N and longitude 103°07'36.885" W in Lea County, New Mexico (**Figure 1**). The release was apparently caused by internal corrosion and the pipeline was repaired. A New Mexico Oil Conservation Division (NMOCD) Release Notification Form C-141 was submitted.

This report presents the data collected at the Site during weekly groundwater gauging and phase separated hydrocarbon (PSH) recovery and four (4) quarterly sampling events conducted during 2019. The objective of the on-going quarterly groundwater sampling activities at the Site is to monitor the concentration of chemicals of concern (COCs) in the affected groundwater. Weekly PSH recovery activities are conducted to remove residual crude oil from groundwater.

1.2 Previous Remedial Responses and Environmental Investigations

The previous environmental consultant for the Site was EarthCon Consultants, Inc. (EarthCon). As of July 1, 2012, EnTech Consulting Corporation (EnTech) was retained by Plains for consulting services for the Site. Even though the environmental consultant for the Site has changed, the same personnel were retained to complete work for the Site.

The release was below the reportable quantity and was not initially reported to the NMOCD. The release was first investigated by Environmental Plus, Inc. (EPI) on May 23, 2003. Information was then reported to the NMOCD with the Release Notification Form C-141. The irregularly-shaped, spill-impacted area was approximately 566-square feet, according to Mr. Pat McCasland with EPI. As part of the initial remediation activities, affected soil was removed and stockpiled on Site in June 2003. A total of 676-cubic yards of stockpiled soil were then transported to the Lea Station Land Farm for treatment, as reported on NMOCD Form C-138 in April 2004 by EPI.

EarthCon Consultants, Inc. (EarthCon; formerly Premier Environmental Services, Inc. (Premier)) continued to investigate the hydrocarbon impact to soil and groundwater. The results of the 2005 soil and groundwater investigations are detailed in a March 2006 Site Investigation and Annual Report, which was submitted to the NMOCD on behalf of

Plains. During 2006, the affected area was further assessed with the installation of monitor wells MW-1 though MW-7 and recovery wells RW-1 through RW-3 and groundwater monitoring on a quarterly basis.

In May 2006, a Soil Remediation Plan (SRP) was submitted to the NMOCD to address soil impacts at the Site. Objectives of this risk-based SRP were to isolate and control COCs in the soil and to prevent further impact to groundwater. The SRP was approved by the NMOCD in a correspondence dated June 1, 2006 to Plains.

In October 2006, excavation of impacted soil was completed in accordance with the SRP to satisfy soil remediation goals and meet regulatory requirements. The excavation footprint and monitor well locations are shown on **Figure 2**. Details of soil remediation activities can be found in the *December 2006 Soil Closure Report* prepared by EarthCon and submitted to the NMOCD.

Groundwater evaluation at the Site continued in 2010 with the installation of two (2) recovery wells (RW-2 and RW-3) and one (1) additional monitoring well (MW-8). Quarterly groundwater sampling was completed at the Site through 2019 in addition to PSH recovery.

The 2013 Soil Investigation and Annual Groundwater Monitoring Report presented the data collected at the Site during weekly groundwater gauging and PSH recovery, and four (4) quarterly sampling events over the year. Additional assessment of the Site occurred in November of 2013 with the installation of one (1) delineation monitor well (MW-9) and three (3) product recovery wells (IW-1 through IW-3).

Annual groundwater monitoring reports were prepared in 2014 through 2018 which presented the data collected during weekly PSH recovery, recovery system maintenance, and quarterly groundwater sampling events conducted during the previous year.

This report summarizes the activities conducted in 2019 for groundwater sampling, groundwater analysis, and PSH recovery activities.

1.3 Regulatory Framework

Based on standards outlined in New Mexico Administrative Code (NMAC), Title 20, Chapter 6, Part 2, the remediation criteria for groundwater at the Site are as follows:

Chemical of Concern	Limit (mg/L)
Benzene	0.01
Toluene	0.75
Ethylbenzene	0.75
Total Xylenes	0.62
Polynuclear Aromatic Hydrocarbons (PAH) (1,2)	0.03
Benzo-a-pyrene (2)	0.0007

1 – PAHs: Total naphthalenes plus monomethylnaphthalenes

2 – PAH remediation standards will be used as target concentrations only upon PSH removal.

The values listed in the above, are utilized as the target cleanup goals for COC concentrations in groundwater at the Site. PSH removal is also considered an integral part of ongoing remediation activities.

1.4 Limitations

EnTech has examined and relied upon the file information provided by Plains and their contractors, and conversations with Plains personnel and their contractors familiar with the Site in question. EnTech has not conducted an independent examination of the information contained in external project files or that provided by Plains or their contract personnel. Furthermore, we assume the genuineness of the documents reviewed and that the information provided in these documents and during the interviews of Plains and contract personnel are true and accurate. EnTech has prepared this report using the level of care and professionalism in the industry for similar projects under similar conditions. EnTech will not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this report was prepared. EnTech believes the conclusions stated herein are factual, but no guarantee is made or implied.

2.0 GROUNDWATER ASSESSMENT AND RESULTS

2.1 Groundwater Sampling Methodology

Activities conducted at the Site in 2019 primarily consisted of gauging wells for groundwater levels, determining the presence or absence of PSH and recovery of product using the recovery system installed at the Site in 2014 (absorbent socks, hand bailing, and submersible pumps). Groundwater sampling of PSH-free monitor and recovery wells was also completed to evaluate the extent of the dissolved-phase hydrocarbon plume.

Measurements of the depth to groundwater and product thickness in wells with hydrocarbon sheen or PSH were completed during the weekly PSH recovery and system maintenance, and quarterly groundwater sampling events. Nine (9) groundwater monitor wells (MW-1 through MW-9) and eight (8) recovery wells (RW-1 through RW-5 and IW-1 through IW-3) were gauged using an oil/water interface probe. The well locations are indicated on **Figure 2**.

Groundwater level elevations and the presence of PSH, if any, were noted for each well. In cases where no measurable PSH was detected by the interface probe, the downhole sensor of the probe was examined for the presence of PSH upon removal from the well. Recovery wells (RW-1 through RW-5 and IW-1 through IW-3) and one (1) monitor well (MW-1) contained a measurable PSH thickness or hydrocarbon sheen during 2019 and were sampled during the 2nd quarter. Starting in the 2nd quarter of 2008, all recovery and monitor wells with PSH or sheen were required to be sampled annually and the groundwater samples analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs) to meet NMOCD requirements. For consistency, after 2008 wells exhibiting measurable PSH were sampled and analyzed for the required COCs during the second quarter sampling event in each year. Additionally, based on the review of the 2010 Annual Groundwater Monitoring Report, the NMOCD requested that any monitor well analyzing a COC which exceeded NMOCD standards be sampled for PAHs. It should be noted that monitor well MW-1 and recovery wells RW-1 through RW-5 and IW-1 through IW-3, indicated PSH thicknesses ranging from a sheen to 0.07-foot during the quarterly sampling events in 2019. In addition to the required annual groundwater sampling event (i.e., 2nd quarter), recovery wells RW-1, RW-2, RW-4, RW-5, and IW-2 were sampled in at least two (2) or more quarters in 2019 as the PSH observed during gauging did not recharge after purging.

Groundwater monitor wells not exhibiting PSH or hydrocarbon sheen were gauged and sampled quarterly. After collecting and recording the groundwater level, each well was purged with a clean electric submersible pump or hand bailed using a clean disposable

bailer. Groundwater samples were then collected using a new dedicated disposable bailer.

2.2 Groundwater Gauging

Table 1 summarizes groundwater gauging (elevation and PSH thickness) measurements taken before each quarterly groundwater sampling event in 2019. In addition, weekly groundwater elevation and PSH thickness measurements were recorded prior to and after PSH recovery in monitor and recovery wells. Groundwater elevations and PSH thickness measurements were taken in one (1) monitor well (MW-1) and eight (8) recovery wells (RW-1 through RW-5 and IW-1 through IW-3) during PSH recovery efforts. Complete historical groundwater elevation and PSH thickness measurements since September 14, 2005 are presented in **Table 2**. The groundwater elevation calculations are based on the top of polyvinyl chloride (PVC) well casing elevations, which were last surveyed on March 15, 2005 by EarthCon, the previous consultant and updated in December 2013 by EnTech for newly installed wells (MW-9 and IW-1 through IW-3).

2.3 Groundwater Gradient and Flow Direction

Using the groundwater gauging data summarized in **Table 1**, groundwater gradient maps were prepared and are included as **Figures 3A** through **3D**. The calculated groundwater gradient and estimated groundwater flow direction are based on the gauging data obtained on February 12, May 9, August 21, and November 5, 2019. The hydraulic gradient in 2019 ranged from 0.0034- to 0.0040-foot/feet (ft/ft), based on groundwater elevations measured between monitor wells MW-4 and MW-7. The groundwater flow direction has consistently been to the east-southeast.

2.4 Groundwater Analytical Results

Groundwater samples were collected on February 13, May 8, August 22, and November 6, 2019 from all wells that did not contain PSH (see **Table 3**). The monitor wells were purged by removing a minimum of three (3) to five (5) well volumes of groundwater, or depending on groundwater conditions, bailed dry three (3) times using a disposable bailer and allowed to recover to at least 80% of the initial volume before collecting samples. Groundwater samples were collected and transferred into laboratory-supplied sample containers. The sample containers were then packaged to prevent breakage, placed on ice in a cooler, and shipped to Pace Analytical (formerly ESC Lab Sciences) of The Woodlands, Texas for analysis. The groundwater samples were analyzed for BTEX by EPA Method SW 846-8260B and PAHs by EPA Method SW 8270C.

Groundwater samples were collected from MW-1, RW-3, IW-1 and IW-3 during the 2nd quarter of even though a sheen was observed. Groundwater was not sampled from MW-1, IW-1 and IW-3 during the 1st, 3rd and 4th quarters because measurable PSH was observed. Groundwater samples were collected during the 2nd and 3rd quarters of 2019 from recovery wells RW-1 and IW-2. Groundwater samples were collected during the 2nd, 3rd, and 4th quarters from recovery wells RW-2, RW-4, and RW-5. Laboratory analysis of groundwater samples collected from monitor well MW-1 and recovery wells RW-1 through RW-3 and IW-1 through IW-3 indicated benzene concentrations exceeding the NMOCD criteria, while toluene and ethylbenzene concentrations were below method detection limits (MDLs) or at levels below the NMOCD remediation criteria.

Analytical results reported for the groundwater samples collected from eight (8) PSH-free monitor wells (MW-2 through MW-9) indicated BTEX concentrations below MDLs or concentrations below the NMOCD criteria for all four (4) quarters of 2019. All recovery wells have historically had a measurable thickness of PSH. In 2019, the PSH thickness ranged from a sheen to 0.43-foot. Monitor well MW-1 and those recovery wells that failed to display a sheen or measurable thickness of PSH after purging in 2019 were sampled. Monitor well MW-1 and recovery wells RW-3 and IW-1 and IW-3 were sampled in the 2nd quarter of 2019. Recovery wells RW-1 and IW-2 were sampled in the 2nd and 3rd quarters of 2019, whereas recovery wells RW-2, RW-4, and RW-5 were sampled in the 2nd, 3rd, and 4th quarters of 2019.

Benzene was the only COC detected above the NMOCD criteria during four (4) quarters of groundwater sampling. Laboratory analysis of all groundwater samples indicated benzene concentrations exceeding the NMOCD criteria of 0.01 milligrams per liter (mg/L). Analysis of groundwater samples collected in 2019 indicated exceedances in the following wells:

- MW-1 (0.0314 mg/L) in the 2nd quarter;
- RW-1 (0.0107 mg/L and 0.0324 mg/L) in the 2nd and 3rd quarters, respectively;
- RW-2 (0.106 mg/L) in the 2nd quarter;
- RW-3 (0.0117 mg/L) in the 2nd quarter;
- IW-1 (1.71 mg/L) in the 2nd quarter;
- IW-2 (0.0665 mg/L) during the 2nd quarter;
- IW-3 (0.347 mg/L) during the 2nd quarters.

Groundwater samples were also collected from MW-1, RW-1, RW-2, and IW-1 through IW-3 during the second quarter sampling event of 2019 and analyzed for PAH. Although concentrations of naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo (a) anthracene, benzo (b) fluoranthene, dibenzofuran, benzo (ghi) perlyene, 1-methylnaphthalene, and 2-methylnaphthalene were detected, no exceedances of NMOCD standards were observed with the exception of IW-1. Laboratory analyses of this groundwater sample indicated concentrations of naphthalene (0.054 mg/L) and benzo(a)anthracene (0.000915 mg/L) above the NMOCD criteria of 0.03 mg/L and 0.00091 mg/L, respectively.

The 2019 analytical results are presented in **Table 3**, and historical analytical results are presented in **Table 4**. Table **2.1** below summarizes the benzene concentrations detected in 2019. Benzene concentrations reported in exceedance of NMOCD standards are marked in **bold**.

Table 2.1
2019 COC Detected Concentrations (mg/L)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	Benzene	Benzene	Benzene	Benzene
NMOCD Remediation Criteria (mg/L)	0.01	0.01	0.01	0.01
MW-1	NS	**0.0314**	NS	NS
RW-1	NS	**0.0107**	**0.0324**	NS
RW-2	NS	**0.0106**	0.00435	0.00105
RW-3	NS	**0.0117**	NS	NS
RW-4	NS	<0.005	0.00699	0.00258
RW-5	NS	0.00516	<0.001	<0.001
IW-1	NS	**1.71**	**NS**	NS
IW-2	**NS**	**0.0665**	0.0021	NS
IW-3	**NS**	**0.347**	NS	NS

Note: Concentrations in bold indicate exceedances of NMOCD Remediation criteria.
NS – Not sampled due to PSH sheen or a visible PSH sheen.

Laboratory analytical reports are provided in **Appendix A**. The groundwater analytical data for each quarterly sampling event are presented in **Figures 4A** through **4D**.

2.5 Groundwater Waste Disposal

Purge water generated during quarterly sampling of on-Site monitor wells is placed in the 1,100-gallon on-Site above ground storage tank (AST). These liquids are vacuumed from the tank and transported to an off-Site disposal facility Gravity of Eunice, New Mexico.

3.0 PSH RECOVERY

3.1 PSH Recovery Methodology

In addition to collecting groundwater samples, EnTech performed weekly visits to the Site to gauge and recover PSH from nine (9) monitor and recovery wells with PSH/sheen (wells MW-1, RW-1 through RW-5, and IW-1 through IW-3). Measurements to PSH and water levels were recorded during each Site visit (see **Table 2**). PSH recovery activities were completed on a weekly basis using submersible pumps, hand bailing, and/or absorbent socks. Routine weekly PSH recovery activities typically consisted of the removal of 10- to 20-gallons of groundwater and associated PSH from the above referenced wells. In August 2014, recovery pumps were installed in recovery wells RW-3 and IW-1 through IW-3 as part of the recovery system at the Site. Additional details are provided below.

3.2 PSH Recovery via Pumping and Manual Bailing

During 2019, measurable PSH was observed in monitor well MW-1 and recovery wells RW-1 through RW-5, and IW-1 through IW-3. While monitor well MW-3 did not have measurable product thickness in 2019, an absorbent sock was installed to facilitate residual PSH recovery. PSH and dissolved phase groundwater recovery data are presented in **Table 6**.

A general decreasing trend in the PSH thickness in effected on-Site monitor wells were observed throughout 2019 and ranged from a sheen to 0.43-foot. The average thickness of measurable PSH in 2019 was calculated to be 0.014-foot which decreased from 0.02-foot observed in 2018. A heavy sheen of product was recovered via manual bailing and/or weekly submersible pumping during each recovery event in 2019.

In general, a decreasing trend in the PSH thickness in monitor well MW-1 was observed from 2006 (2.00-feet) to April of 2014 (0.56-foot). In June of 2014, MW-1 experienced a slug of PSH (3.67-foot) which has diminished to a maximum of 0.43 in 2019.

A general decreasing and stable trend in the PSH thickness in monitor well MW-3 was observed starting in 2015 and PSH was not detected from 2016 through 2019. This monitor well has had an absorbent sock installed to remove any residual sheen that enters the well. The volume of PSH recovered from MW-3 is not included in the estimated total recovered on an annual basis.

In recovery well RW-1, a generally decreasing trend of PSH thickness was observed in 2019. The maximum thickness observed in RW-1 during 2019 was 0.02-foot which is a decrease from the 0.40-foot observed in 2018. A heavy sheen of product was

recovered via manual bailing and/or weekly submersible pumping during each recovery event in 2019.

The PSH thickness observed in recovery well RW-2 indicated a decreasing trend during 2019. A maximum measured thickness of 0.07-foot was observed in 2019. While this thickness is an increase over the maximum observed in 2018 (0.02-foot), it represents only one (1) event that occurred in November or 2019. In general, a decrease in PSH thickness was observed in RW-2 during 2019. A heavy sheen of product was recovered via manual bailing and/or weekly submersible pumping during each recovery event in 2019.

The PSH thickness observed in recovery well RW-3 indicated a stable to decreasing trend during 2019, although a slug of PSH occurred in December of 2019 which increased the thickness to the maximum observed (0.06-foot). This thickness was slightly higher than the maximum observed in 2018 (0.03-foot), however the general trend in 2019 was decreasing (with the exception of the December slug). A calculated average product thickness of 0.01-feet was observed in 2019 which was the same as observed in 2018. A recovery system was installed in August 2014 for automated product recovery via skimmer pumps.

The PSH thickness observed in recovery well RW-4 indicated a stable trend in the maximum product thickness. A maximum measurable thickness of 0.02-foot was observed during 2019, which is slightly greater than 2018 (0.01-foot), but represents a continued decrease from a maximum of 0.08-feet in 2017. A heavy sheen of product was recovered via manual bailing and/or weekly submersible pumping during each recovery event in 2019.

The PSH thickness observed in recovery well RW-5 indicated stable levels during 2019 as compared to 2018. An observable sheen was detected throughout 2019 with the exception of two (2) observations on February 12 and March 22, 2019 which measured 0.01-foot. A heavy sheen of product was recovered via manual bailing and/or weekly submersible pumping during each recovery event in 2019.

The PSH thickness observed in recovery well IW-1 indicated a stable trend during 2019. A maximum measurable thickness of 0.06-foot was observed in August and September of 2019, a decrease from 0.22-foot during 2018. A recovery system was installed in August 2014 for automated product recovery via skimmer pumps. The recovery system remained operational during 2019 and product recovery via the automated system is ongoing.

The PSH thickness observed in recovery well IW-2 indicated a stable to decreasing trend in PSH thickness during 2019. A maximum measurable thickness of 0.03-foot

was observed in 2019, a decrease from 0.05-foot in 2018. A recovery system was installed in August 2014 for automated product recovery via skimmer pumps. The recovery system remained operational during 2019 and product recovery via the automated system is ongoing.

The PSH thickness observed in recovery well IW-3 indicated a slightly increasing trend in PSH thickness during 2019. A maximum measurable thickness of 0.37-foot was observed representing a slight increase from the maximum thickness observed in 2018 (0.04-foot). A recovery system was installed in August 2014 for automated product recovery via skimmer pumps. The recovery system remained operational during 2019 and product recovery via the automated system is ongoing.

3.3 Recovery System Installation

In August 2014, a PSH recovery system was installed at the Site. The system consisted of four (4) QED high suction bladder pumps with a floating inlet genie skimmer, an air compressor, and a high density polyethylene (HDPE) tank with high level shutoff switch. The genie skimmers are designed to fluctuate with the groundwater levels on a three-foot rod assembly using a specific gravity float for optimized light non-aqueous phase liquid (LNAPL) recovery. The QED high suction bladder pumps hang above the skimmer which eliminates air contact with the fluids, minimizing emulsification and VOC emissions. The pneumatic bladder pumps use an electronic controller mounted outside the well to allow adjustment of pump cycles and on/off times. The pneumatic pumps were installed in recovery wells IW-1, IW-2, IW-3 and RW-3 with the middle of the rod assembly for the genie skimmers set at a depth of fifty-two (52) feet from top of casing.

3.4 PSH Waste Disposal

Approximately 1,220-gallons total of affected groundwater were recovered from the wells containing PSH or sheen during 2019 as part of manual weekly PSH recovery. These liquids, along with liquids generated as part of the recovery system are vacuumed from the HDPE tank and transported for off-Site disposal by Gravity of Eunice, New Mexico.

4.0 MONITORED NATURAL ATTENUATION

4.1 Regulatory Framework for Monitored Natural Attenuation

Monitored Natural Attenuation (MNA) is defined by the New Mexico Environmental Department in 20.5.13 NMAC as "a methodology for remediation that relies upon a variety of naturally occurring chemical, physical and biological processes to achieve target concentrations in a manner that is equally as protective of public health, safety and welfare, and the environment as other methods and that is accompanied by a program of monitoring to document the process and results of the above mentioned processes."

As part of the MNA process several lines of evidence need to be evaluated, the general lines of evidence are listed below:

- **Primary Lines of Evidence (PLOE).** Relies on use of historical groundwater data that demonstrate a clear trend of stable or decreasing COC concentrations over time and with distance away from the source at appropriate monitoring or sampling points.
- **Secondary Lines of Evidence (SLOE).** Uses geochemical indicators to document certain geochemical signatures or "footprints" in the groundwater that demonstrate (indirectly) the type of natural attenuation process(es) occurring at the affected property and the destruction of COCs; or uses distance-based/time-based/biodegradation rate calculations to demonstrate attenuation.
- **Other Lines of Evidence (OLOE).** Most often consists of predictive modeling studies and other lab/field studies that demonstrate an understanding of the natural attenuation process(es) occurring at the affected property and their effectiveness in controlling Protective Concentration Level Exceedance (PCLE) zone migration and decreasing COC concentrations.

4.2 Plume Stability and Monitored Natural Attenuation

The Vac to Jal #3 Site is currently undergoing Plume Stability Analysis. While samples are collected for monitored natural attenuation, insufficient data exists at this time to perform a reliable evaluation.

While plume stability using MNA cannot be evaluated at this time, PLOEs do exist that include:

The benzene concentrations reported in the groundwater samples collected from the recovery wells down-gradient of the plume (RW-1, RW-4, and RW-5) from 2011 through 2019 have declined.

Benzene concentrations reported in the groundwater samples collected from the cross-gradient monitor well (MW-3) indicates nondetectable concentrations beginning in June 2014 through 2019.

Benzene concentrations reported in the groundwater samples collected from monitor and recovery wells located within or near the source area (MW-1, RW-3, and IW-1 through IW-3), all indicated declining levels in 2019. It should be noted that the analyzed concentrations of benzene in these wells are above the NMOCD criteria, but still demonstrating declining levels.

The dissolved phase plume was evaluated by analyzing groundwater samples collected quarterly in 2019 from PSH-free monitor wells. Laboratory analysis of groundwater samples collected from monitor wells MW-2 through MW-9 indicated benzene concentrations below MDLs. Groundwater samples were also collected from wells with a measurable thickness of PSH at a minimum of one (1) quarter in 2019.. Benzene was detected above the NMOCD remediation criteria during at least one sampling event in 2019 in monitor well MW-1, and recovery wells RW-1 through RW-3 and IW-1 through IW-3.

Understanding plume stability is an important step in the remedial planning process for the Site. For instance, an increasing plume could potentially migrate to human or environmental receptors, whereas a stable or decreasing plume may not pose an imminent threat to human health and the environment. An introduction to plume stability analysis and the basis for the plume evaluation at the Site was presented in the 2009 Annual report.

This analysis is an ongoing process and is conducted in order to understand the overall stability of the benzene plume from 2008 through 2019. This study includes the development of benzene concentration isopleths maps. An average of the benzene concentrations reported in the four (4) quarterly groundwater sampling events were used for all the PSH-free monitor wells (MW-2 through MW-9). Monitor and recovery wells which historically indicated PSH (MW-1, RW-1 through RW-3 and IW-1 through IW-3) were all sampled during the 2nd quarterly sampling event at a minimum. Recovery wells RW-1, RW-2, RW-4, RW-5, and IW-2, were all sampled in at least two (2) quarters during 2019. Each sampling event has been used in the plume evaluation. The plume characteristics such as the plume area, average concentration, mass, and centers of mass were calculated for each of the benzene plumes using numerical methods.

The benzene isopleths maps for 2008 through 2019 are presented in **Figures 5 through 16** respectively. Previous maps prepared by EarthCon are presented in **Figures 5 through 8**.

The Mann Kendall Trend Test (MKTT) is a statistical method used to analyze data collected over time for consistently increasing or decreasing trends. It is a non-parametric test, which means it works for all distributions (i.e. the data doesn't have to meet the assumption of normality), but the data should have no serial correlation.

The test can be used to find trends for as few as four (4) samples. However, with only a few data points, the test has a high probability of not finding a trend when one would be present if more points were provided. The more data points available, the more likely the test is going to find a true trend. The minimum number of recommended measurements is therefore at least eight (8) to ten (10) (Reference: Prashanth Khambhammettu: "Mann-Kendall Analysis for the Fort Ord Site", HydroGeoLogic, Inc.-OU-1 2004 Annual Groundwater Monitoring Report-Former Fort Ord, California, 2005).

Concentrations of benzene analyzed in groundwater samples collected from the Site between June 2, 2011 and November 19, 2019 were evaluated using the MKTT. Only monitor wells with detectable benzene concentrations over a period of time greater than two (2) years were evaluated.

Wells evaluated by MKTT for benzene included monitor and recovery wells MW-1, RW-1 through RW-5 and IW-1 through IW-3. The confidence factor [CF] of each analyte and monitor/recovery well is listed in brackets following the well. Monitor wells MW-1 [99.9%], RW-3 [97.8%], RW-4 [99.9%], and RW-5 [>99.9%], all indicated a "decreasing trend". Recovery wells RW-1 [90.7%], IW-1 [94.6%], and IW-2 [93.4%] indicated a "probably decreasing" trend, whereas recovery well RW-2 [64.4%] and IW-3 [83.2%] indicated "no trend". The "no trend" analysis appears to be the result of fluctuating concentrations of benzene or a minimum number of sampling events (i.e., "8"). A copy of the MKTT analysis is included in Appendix B.

The analytical data collected for the Site used for the plume stability analysis indicated that the benzene plume emanating from the Site has a decreasing trend in in size and mass and an average concentration that is decreasing.

5.0 FINDINGS

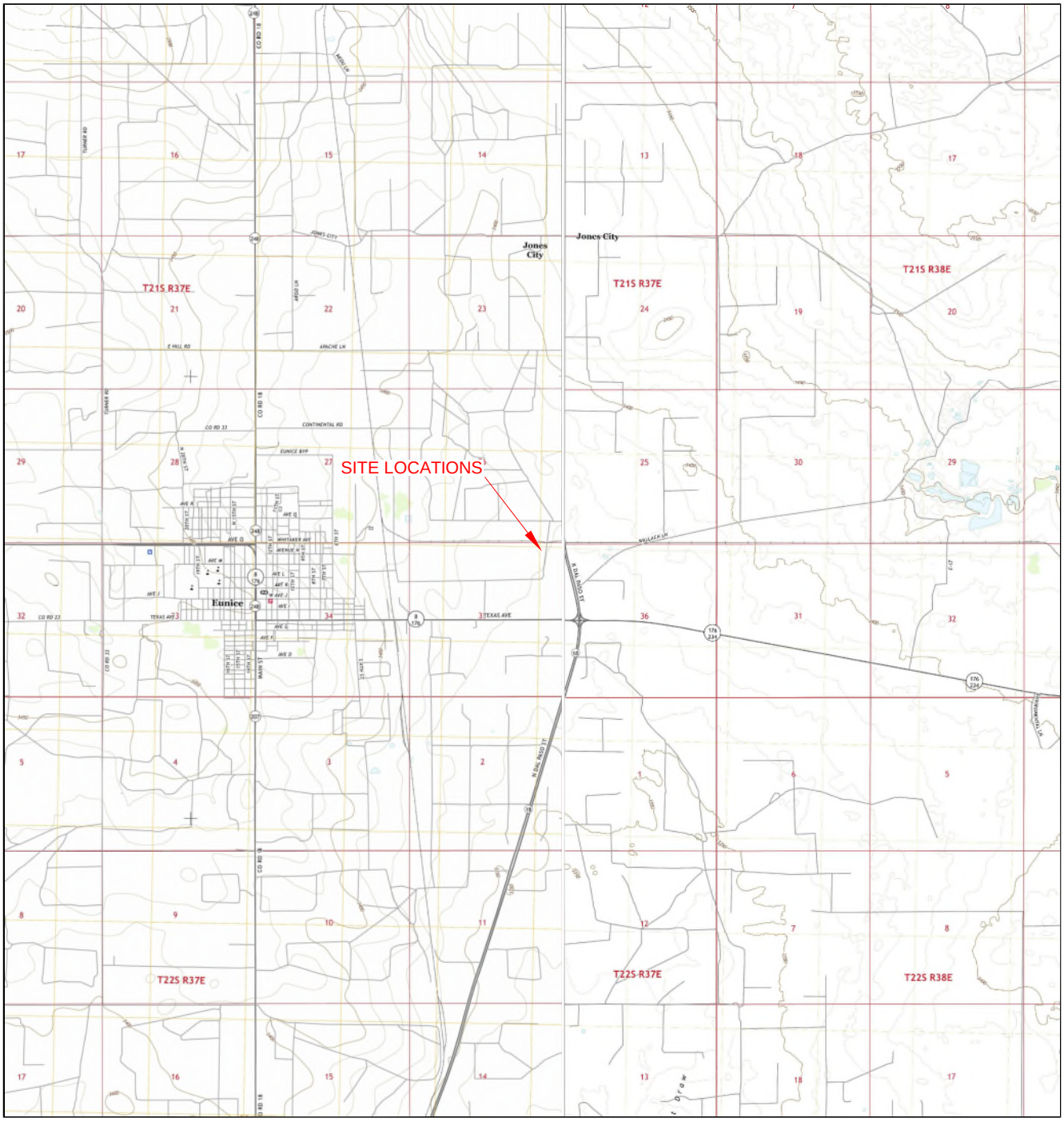
Findings and recommendations resulting from groundwater monitoring at the Vac to Jal #3 Site in 2019 are summarized below.

- Groundwater flow in the uppermost groundwater-bearing unit is to the east-southeast ranging from 0.0034- to 0.0040-ft/ft as measured between wells MW-4 and MW-7.
- Analytical results reported for the groundwater samples collected from eight (8) monitor wells (MW-2 through MW-9) indicated BTEX concentrations for all four (4) quarters of 2019 below MDLs. Analysis of groundwater samples collected from monitor and recovery wells (MW-1 and RW-1, through RW-3 and IW-1 through IW-3) indicated benzene concentrations that exceeded the NMOCD criteria during at least one (1) quarter of 2019. Analysis of groundwater samples collected from recovery wells RW-4 and RW-5 indicated benzene concentrations were below MDLs or concentrations were below the NMOCD criteria in each quarter sampled.
- PSH recovered weekly by manual methods from wells MW-1, RW-1, RW-2, RW-4, and RW-5 and generated by the automated recovery system (RW-3 and IW-1 through IW-3), continued during 2019. The estimated quantity of PSH recovered from wells exhibiting PSH during weekly recovery efforts totaled approximately 1,220-gallons of affected groundwater.
- The PSH plume has remained in the historical source area, located in the vicinity of well MW-1, and recovery wells RW-1 through RW-5 and IW-1 through IW-3, and does not appear to be migrating downgradient.

Based on PSH data and groundwater sampling completed during 2019 (and previously) at the Vac to Jal #3 Site, EnTech recommends the following:

- Continue PSH recovery from monitor and recovery wells MW-1, RW-1, RW-2, RW-4, RW-5, and IW-1 through IW-3 on a weekly basis;
- Continue groundwater monitoring on a quarterly basis in wells without measurable PSH; and,
- Continue annual groundwater sampling of wells with PSH with analysis for BTEX and PAHs.

FIGURES



Eunice Quadrangle (2017)
Eunice NE Quadrangle (2019)
32.442431"N Latitude & -103.127169"W Longitude

1 1/2 0 1/2 1
Distance in Miles

EnTech
Houston, TX • (281) 362-2714

Figure 1
Site Location Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 2/20

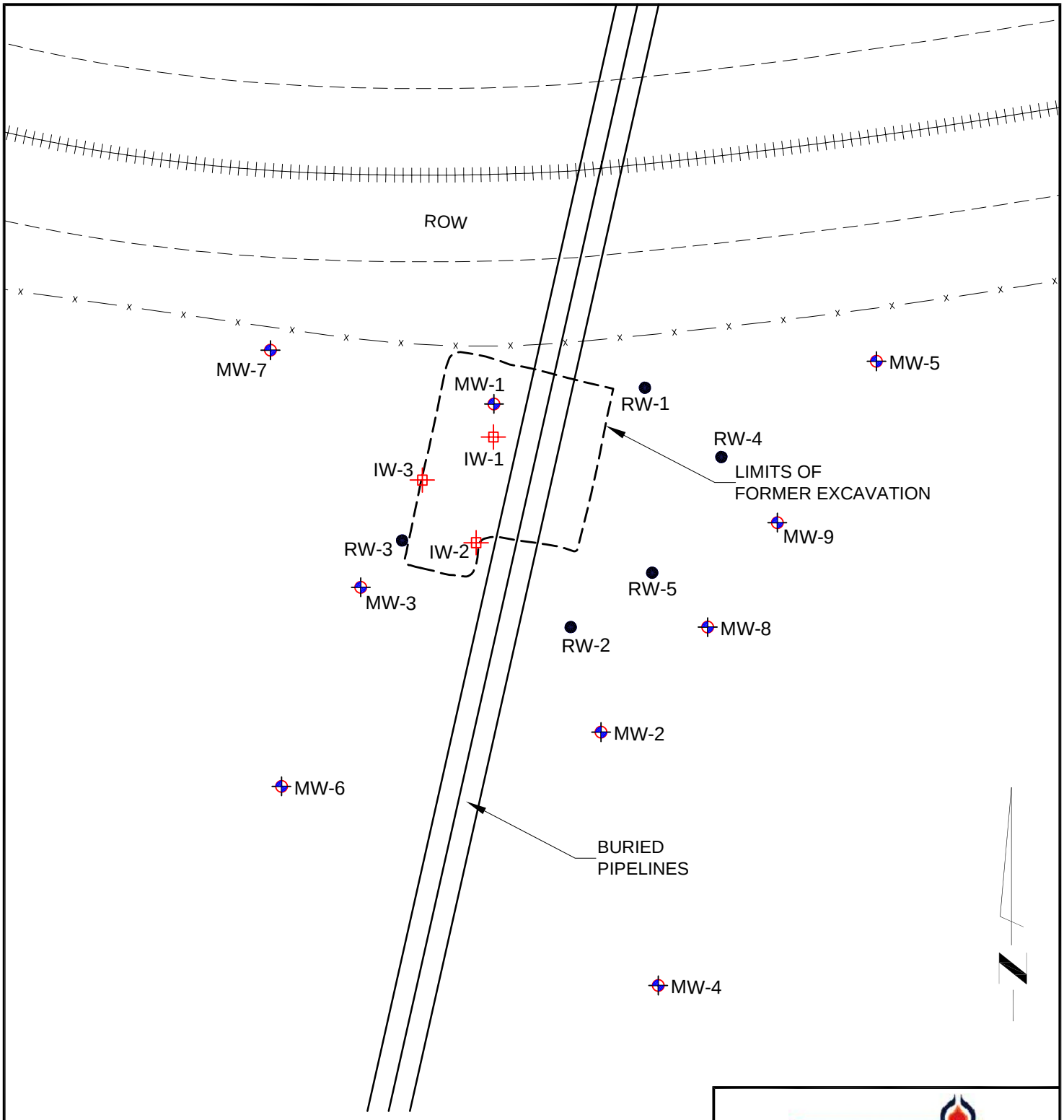


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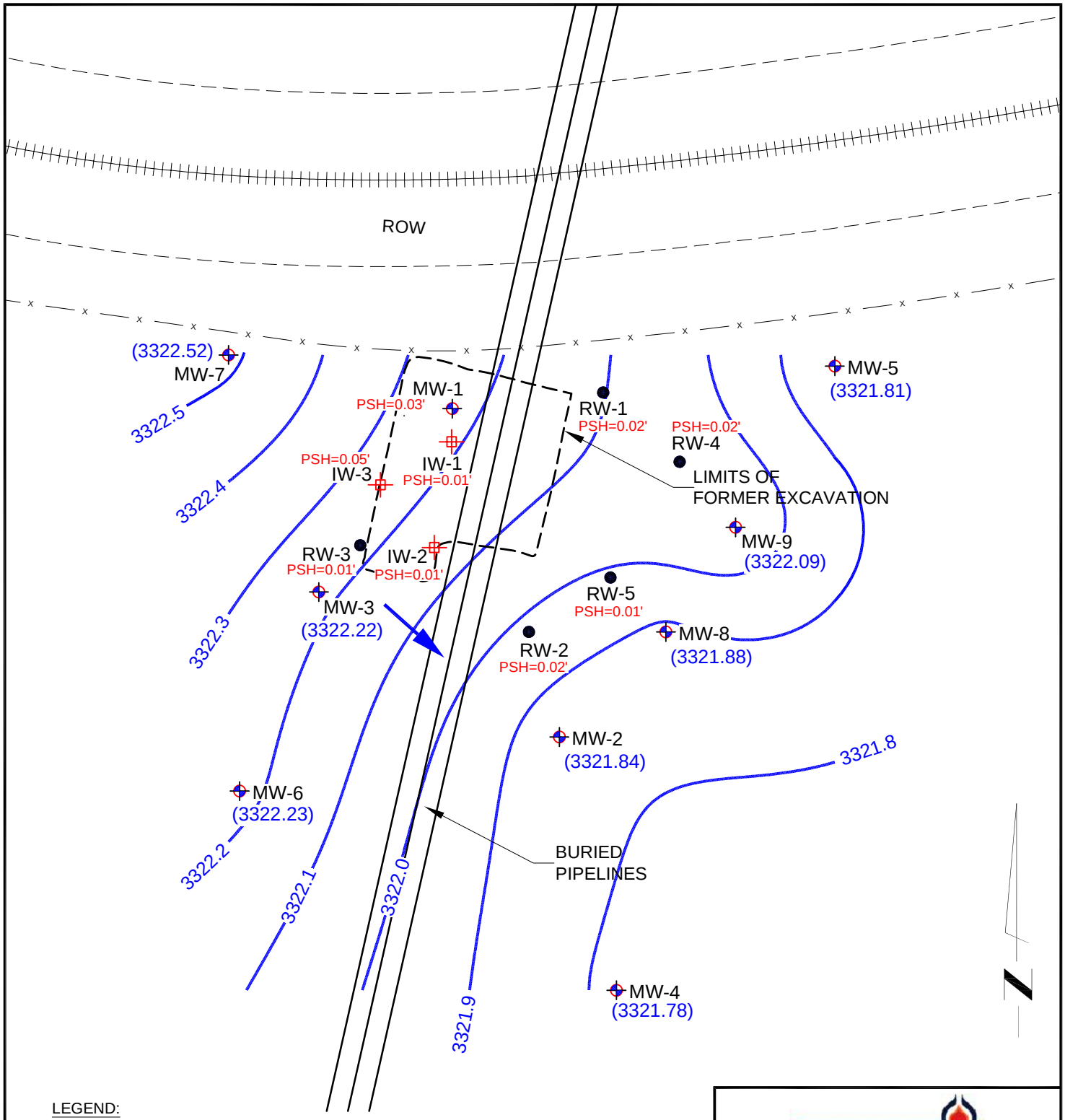
Figure 2
Site Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 2/20



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location
- 3318.1 - Groundwater Elevation Contour, ft. Contour Interval = 0.10'
- (3318.14) - Corrected Groundwater Elevation, ft.
- - Grounwater Flow Direction

0 40

FEET

APPROXIMATE SCALE

Note: MW-1, RW-1 through RW-5, & IW-1 through IW-3 are not used to prepare the contours.

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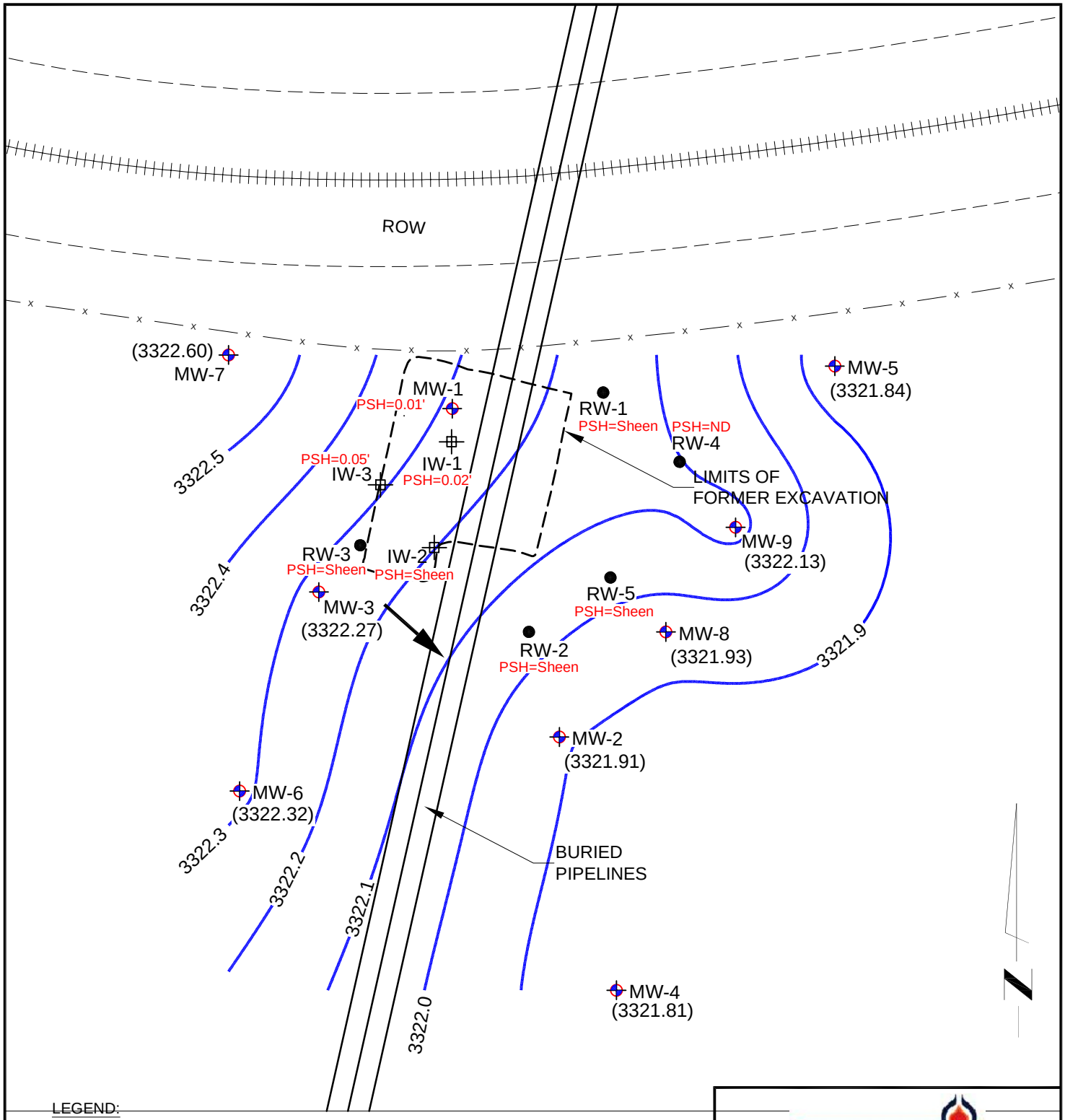
Figure 3A
1st Quarter 2019 - Groundwater Gradient Map
February 12, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 2/20



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location
- 3318.1 - Groundwater Elevation Contour, ft. Contour Interval = 0.10'
- (3318.14) - Corrected Groundwater Elevation, ft.
- Grounwater Flow Direction

Note: MW-1, RW-1 through RW-5, & IW-1 through IW-3 are not used to prepare the contours.

0 40
FEET
APPROXIMATE SCALE

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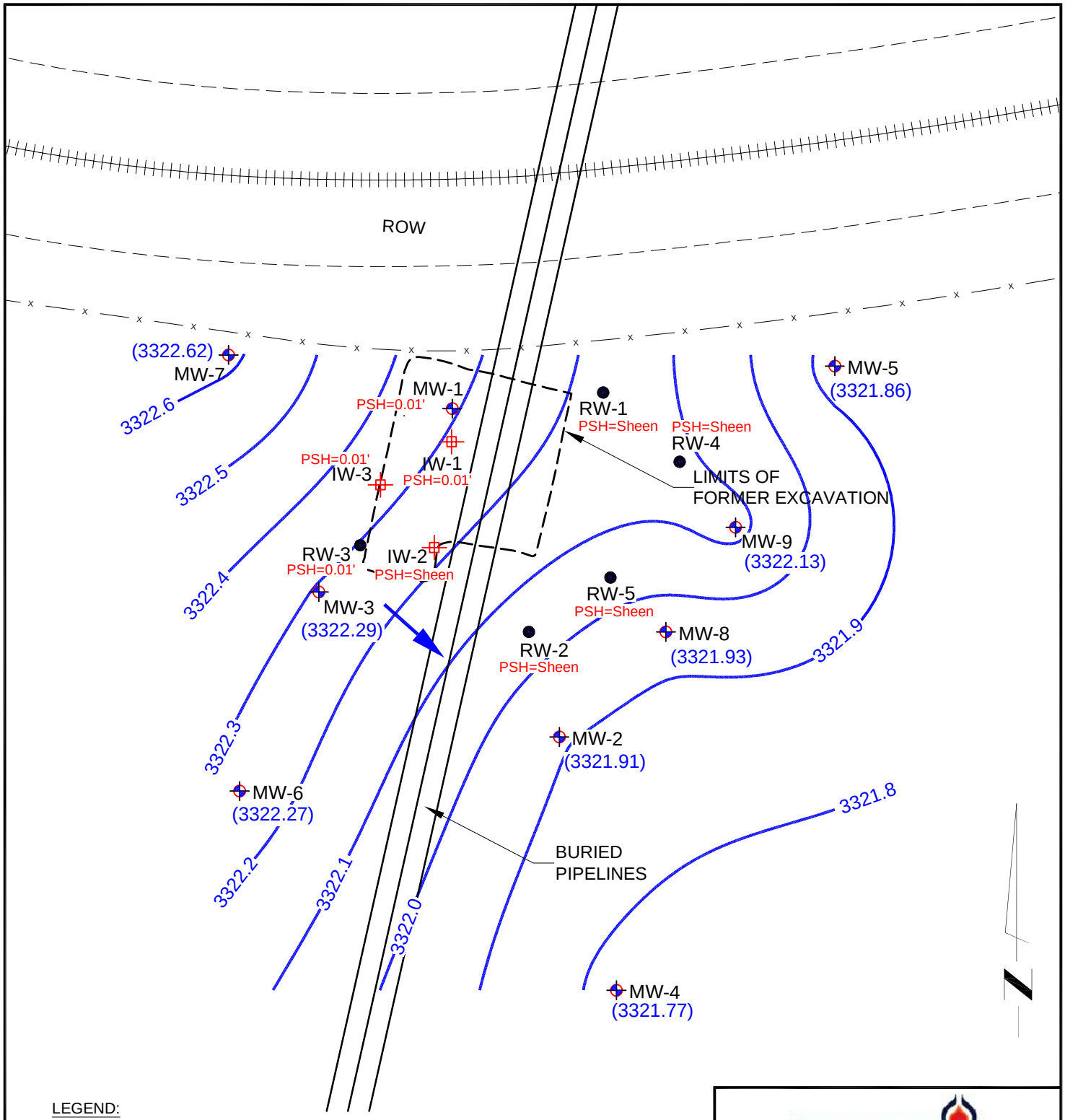
Figure 3B
2nd Quarter 2019 - Groundwater Gradient Map
May 9, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 2/20



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location
- 3318.1 - Groundwater Elevation Contour, ft. Contour Interval = 0.10'
- (3318.14) - Corrected Groundwater Elevation, ft.
- Grounwater Flow Direction

0 40
FEET
APPROXIMATE SCALE

Note: MW-1, RW-1 through RW-5, & IW-1 through IW-3 are not used to prepare the contours.

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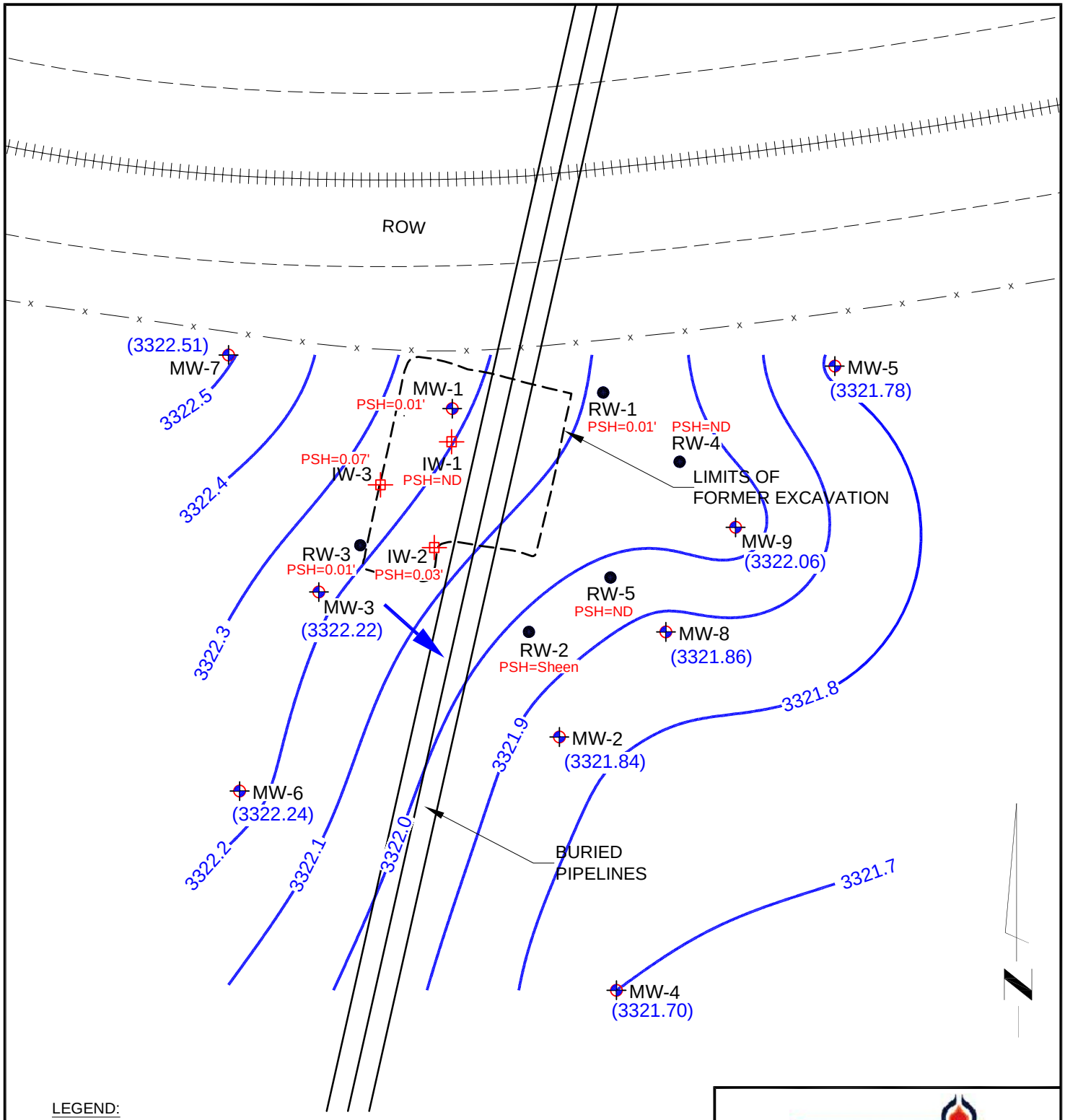
Figure 3C
3rd Quarter 2019 - Groundwater Gradient Map
August 21, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 2/20



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location
- 3318.1 - Groundwater Elevation Contour, ft. Contour Interval = 0.10'
- (3318.14) - Corrected Groundwater Elevation, ft.
- Grounwater Flow Direction

0 40
FEET
APPROXIMATE SCALE

Note: MW-1, RW-1 through RW-5, & IW-1 through IW-3 are not used to prepare the contours.

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Figure 3D
4th Quarter 2019 - Groundwater Gradient Map
November 5, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20

ROW

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-7	02/13/19	<0.001	<0.001	<0.001	<0.003

MW-7

MW-1
NS

IW-1
NS

IW-3
NS

RW-1
NS

NS
RW-4

LIMITS OF
FORMER EXCAVATION

NS
RW-3

NS
IW-2

MW-3

RW-5
NS

RW-2
NS

MW-8

MW-5

MW-9

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-5	02/13/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-9	02/13/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-3	02/13/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-8	02/13/19	<0.001	<0.001	<0.001	<0.003

MW-6

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-6	02/13/19	<0.001	<0.001	<0.001	<0.003

MW-2

BURIED
PIPELINES

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-2	02/13/19	<0.001	<0.001	<0.001	<0.003

MW-4

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-4	02/13/19	<0.001	<0.001	<0.001	<0.003

LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location

Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMOCD Remediation Criteria			
0.01	**0.75**	**0.75**	**0.62**

Concentrations in **BOLD** exceed the NMOCD Remediation Criteria for the Site.
NS - Not Sampled

0 40
FEET
APPROXIMATE SCALE

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Figure 4A
1st Quarter 2019 Groundwater Analytical Map
February 13, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-1	05/08/19	**0.0314**	0.00620	0.168	<0.0150

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-7	05/08/19	<0.001	0.00536	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
IW-1	05/08/19	**0.1710**	0.00815	0.483	0.490

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
IW-3	05/08/19	**0.347**	0.0189	0.243	0.382

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
IW-2	05/08/19	**0.0665**	<0.001	0.0584	0.0480

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-3	05/08/19	**0.0117**	0.00208	0.0425	0.0194

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-3	05/08/19	<0.001	0.00407	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-6	05/08/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-1	05/08/19	**0.0107**	<0.005	0.0180	0.0186

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-5	05/08/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-4	05/08/19	<0.005	<0.005	0.161	<0.0150

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-9	05/08/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-5	05/08/19	0.00516	<0.001	0.00471	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-8	05/08/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-2	05/08/19	**0.106**	0.00518	0.0668	0.0203

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-2	05/08/19	<0.001	0.00297	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-4	05/08/19	<0.001	<0.001	<0.001	<0.003

ROW

MW-7

MW-1

IW-1

IW-3

IW-2

RW-3

MW-3

MW-6

RW-1

MW-5

RW-4

LIMITS OF FORMER EXCAVATION

MW-9

RW-5

RW-2

MW-8

MW-2

BURIED PIPELINES

MW-4

LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location

Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMOCD Remediation Criteria			
0.01	**0.75**	**0.75**	**0.62**

Concentrations in **BOLD** exceed the NMOCD Remediation Criteria for the Site.

0 40

FEET

APPROXIMATE SCALE

N

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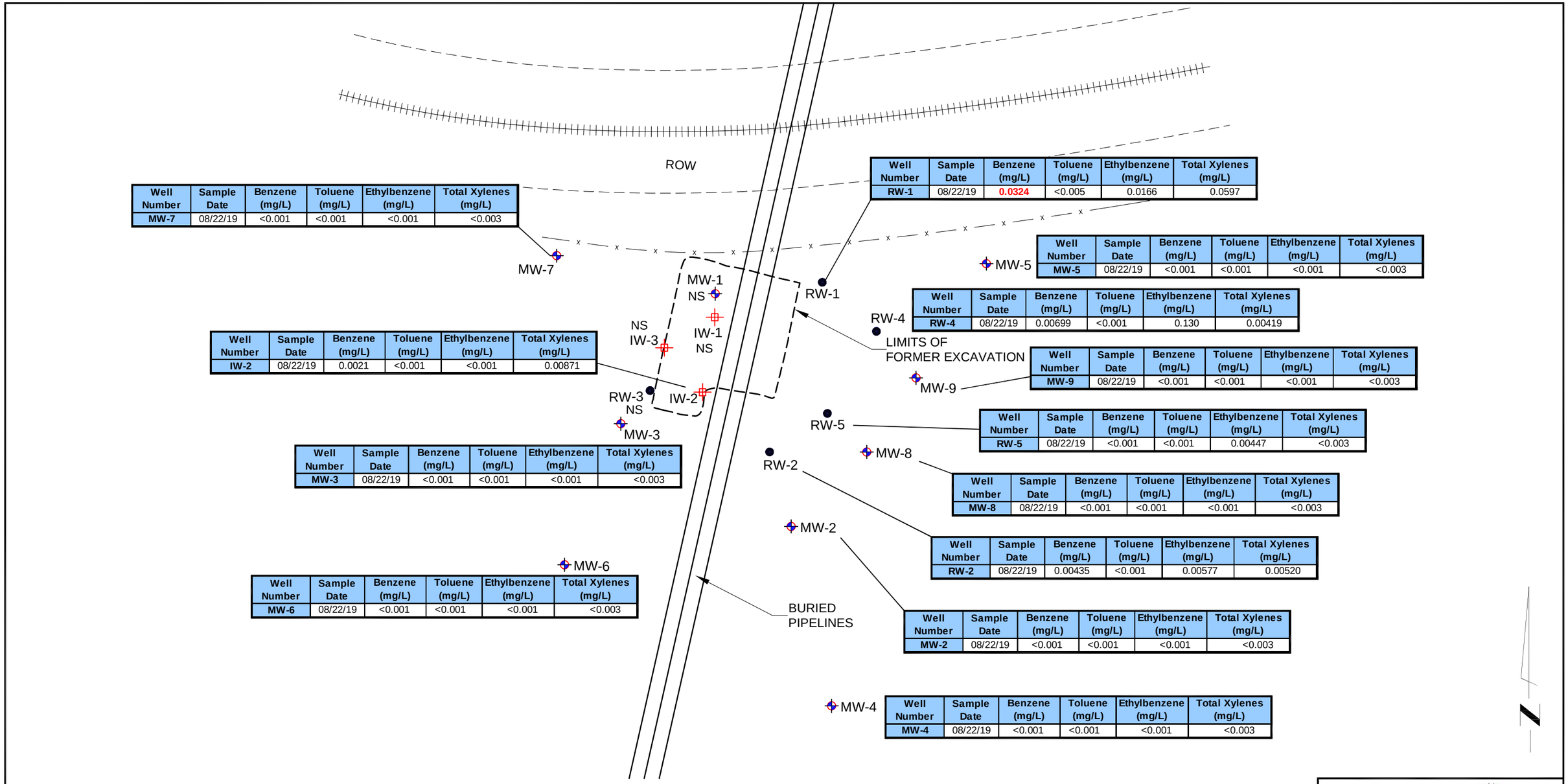
Figure 4B
2nd Quarter 2019 Groundwater Analytical Map
May 8, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20



Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-7	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-1	08/22/19	**0.0324**	<0.005	0.0166	0.0597

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-5	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-4	08/22/19	0.00699	<0.001	0.130	0.00419

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
IW-2	08/22/19	0.0021	<0.001	<0.001	0.00871

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-9	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-5	08/22/19	<0.001	<0.001	0.00447	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-3	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-8	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-2	08/22/19	0.00435	<0.001	0.00577	0.00520

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-2	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-6	08/22/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-4	08/22/19	<0.001	<0.001	<0.001	<0.003

LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location

Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMOCD Remediation Criteria			
0.01	**0.75**	**0.75**	**0.62**

Concentrations in **BOLD** exceed the NMOCD Remediation Criteria for the Site.
NS - Not Sampled

0 40
FEET
APPROXIMATE SCALE

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Figure 4C
3rd Quarter 2019 Groundwater Analytical Map
August 22, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20

ROW

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-7	11/06/19	<0.001	<0.001	<0.001	<0.003

MW-7

MW-1
NS

IW-1
NS

NS
IW-3

NS
RW-3

NS
IW-2

RW-1
NS

RW-4

LIMITS OF
FORMER EXCAVATION

MW-3

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-3	11/06/19	<0.001	<0.001	<0.001	<0.003

MW-6

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-6	11/06/19	<0.001	<0.001	<0.001	<0.003

BURIED
PIPELINES

MW-5

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-5	11/06/19	<0.001	<0.001	<0.001	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-4	11/06/19	0.00258	<0.001	0.0570	<0.003

MW-9

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-9	11/06/19	<0.001	<0.001	<0.001	<0.003

RW-5

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-5	11/06/19	<0.001	<0.001	0.00252	<0.003

MW-8

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-8	11/06/19	<0.001	<0.001	<0.001	<0.003

RW-2

MW-2

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
RW-2	11/06/19	0.00105	<0.001	0.00744	<0.003

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-2	11/06/19	<0.001	<0.001	<0.001	<0.003

MW-4

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
MW-4	11/06/19	<0.001	<0.001	<0.001	<0.003

LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- IW-1 -Recovery/Injection Well Location

Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
NMOCD Remediation Criteria			
0.01	**0.75**	**0.75**	**0.62**

Concentrations in **BOLD** exceed the NMOCD Remediation Criteria for the Site.
NS - Not Sampled

0 40
FEET
APPROXIMATE SCALE

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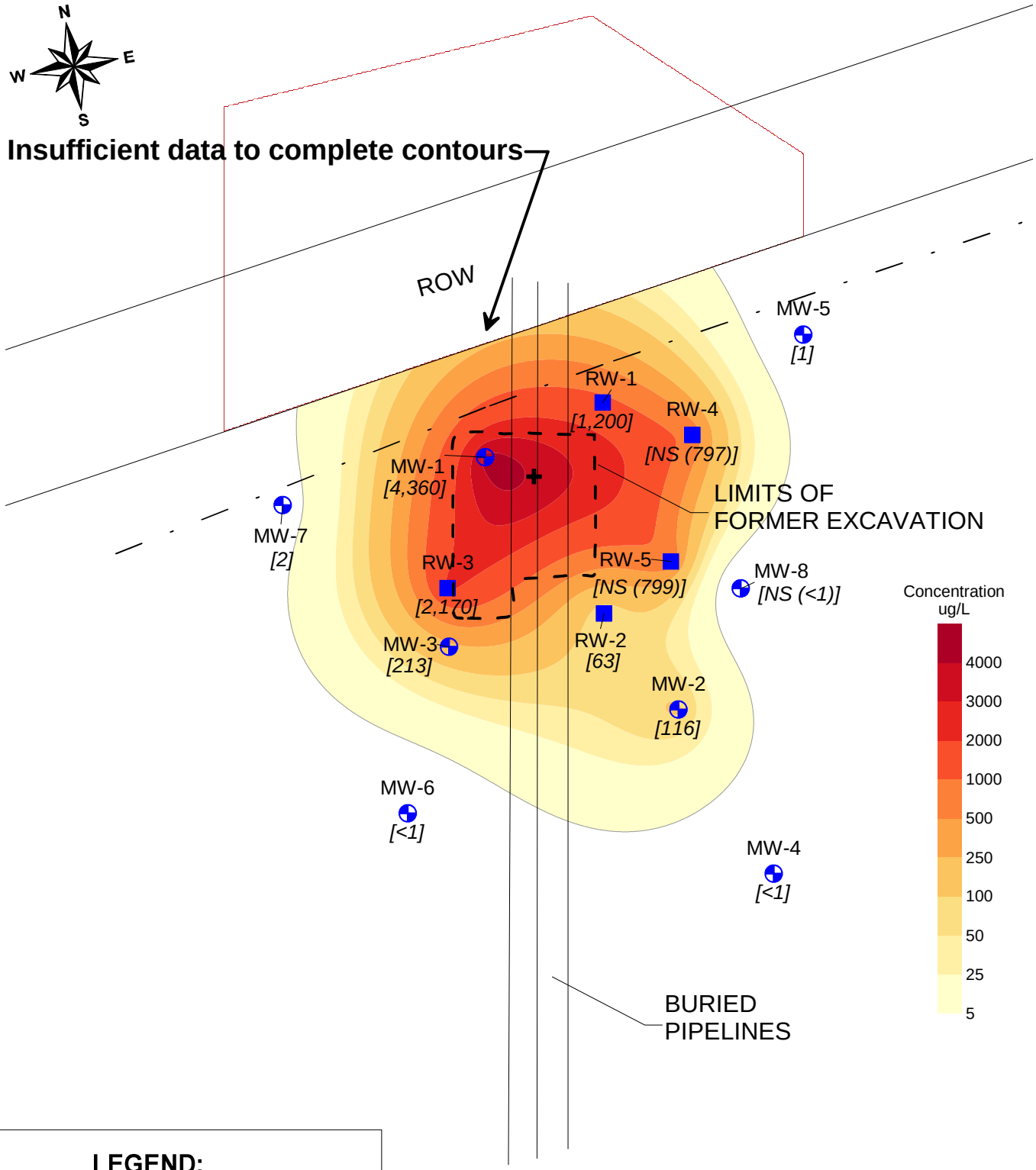
Figure 4D
4th Quarter 2019 Groundwater Analytical Map
November 6, 2019
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20



LEGEND:

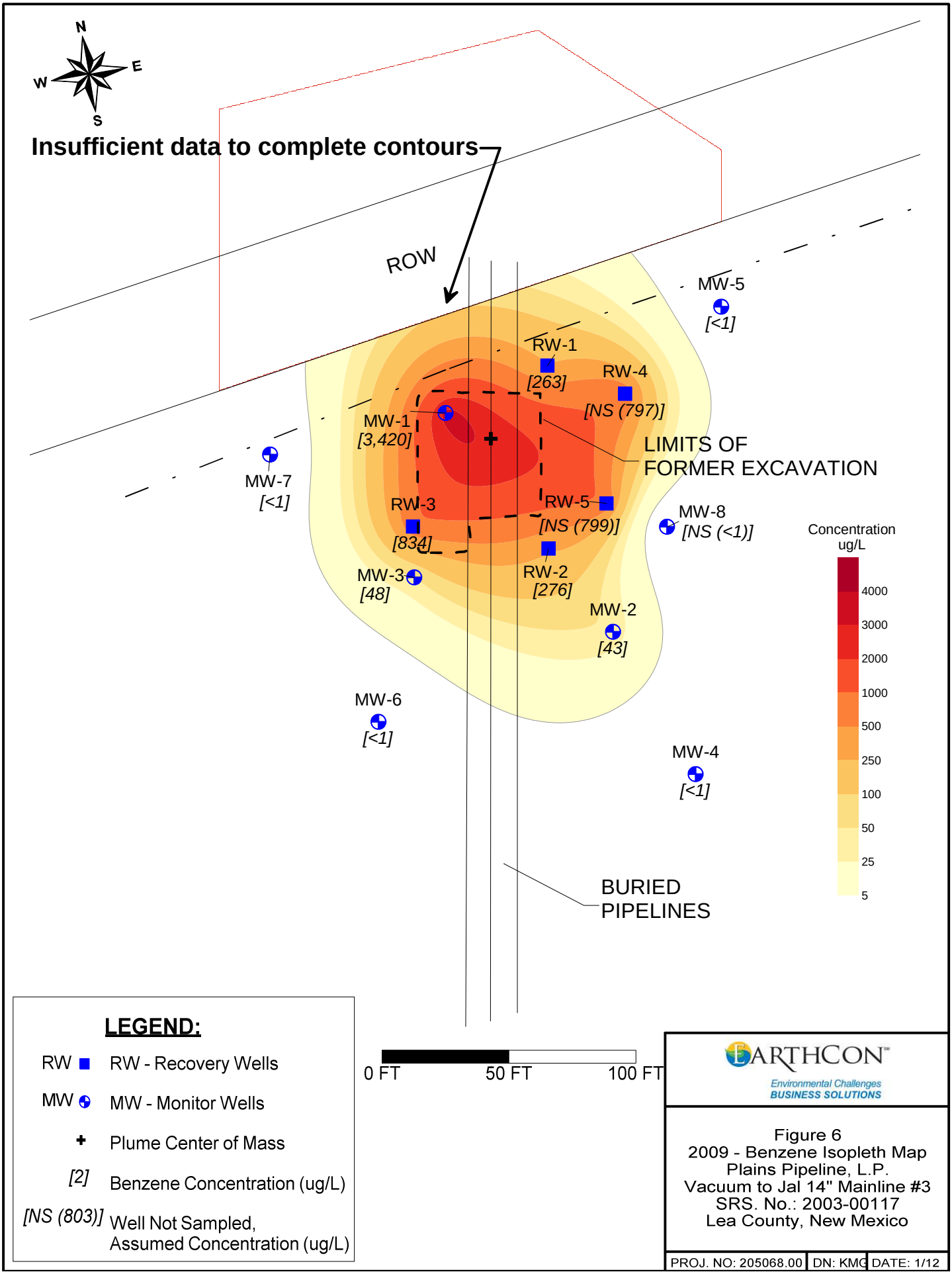
RW ■	RW - Recovery Wells
MW ◔	MW - Monitor Wells
✚	Plume Center of Mass
[2]	Benzene Concentration (ug/L)
[NS (803)]	Well Not Sampled, Assumed Concentration (ug/L)

0 FT 50 FT 100 FT

EARTHCON
Environmental Challenges
BUSINESS SOLUTIONS

Figure 5
2008 - Benzene Isopleth Map
Plains Pipeline, L.P.
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Lea County, New Mexico

PROJ. NO: 205068.00	DN: KMG	DATE: 1/12



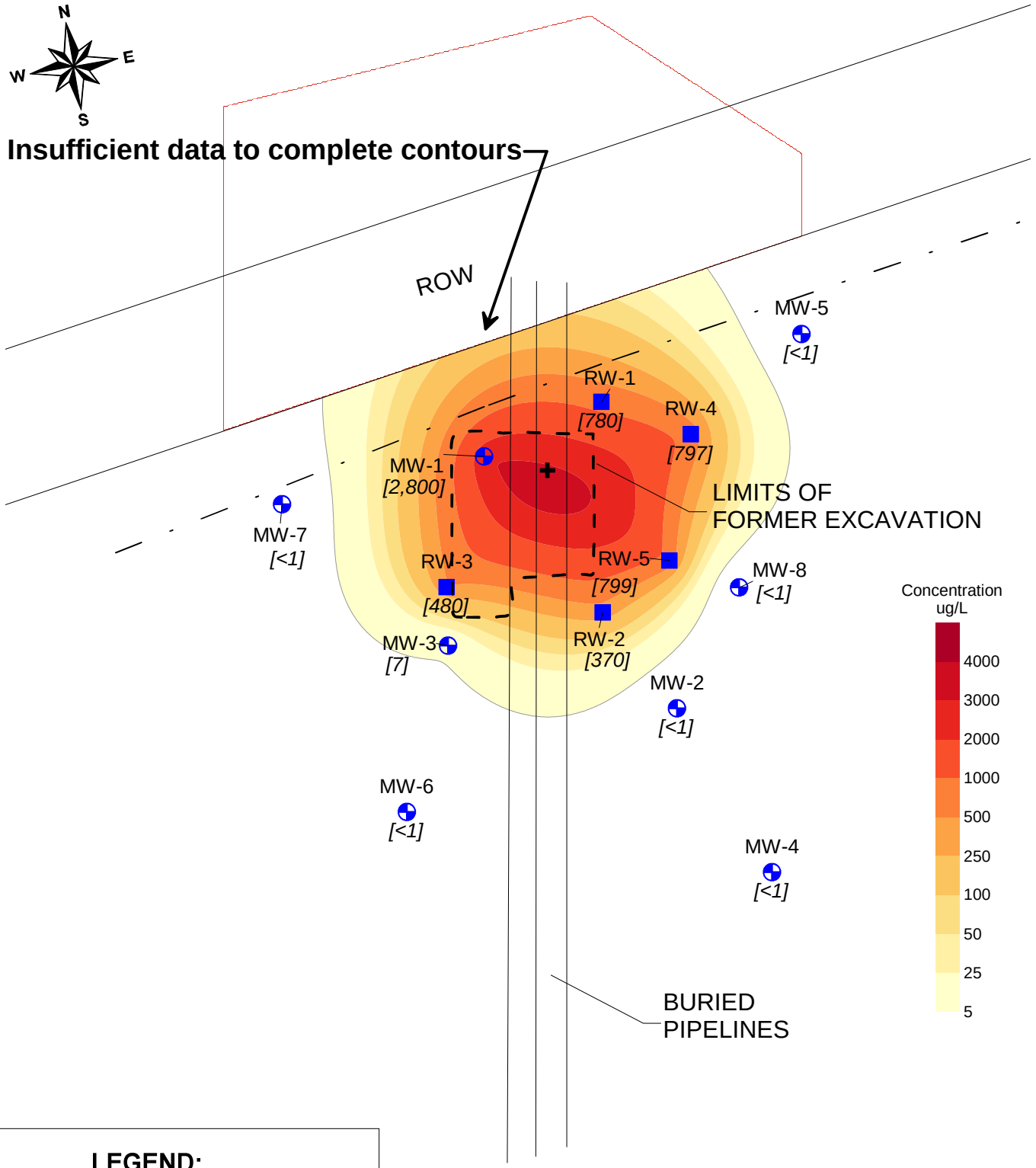
LEGEND:

RW ■	RW - Recovery Wells
MW ◔	MW - Monitor Wells
✚	Plume Center of Mass
[2]	Benzene Concentration (ug/L)
[NS (803)]	Well Not Sampled, Assumed Concentration (ug/L)

EARTHCON
Environmental Challenges
BUSINESS SOLUTIONS

Figure 6
2009 - Benzene Isopleth Map
Plains Pipeline, L.P.
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Lea County, New Mexico

PROJ. NO: 205068.00	DN: KMG	DATE: 1/12



LEGEND:

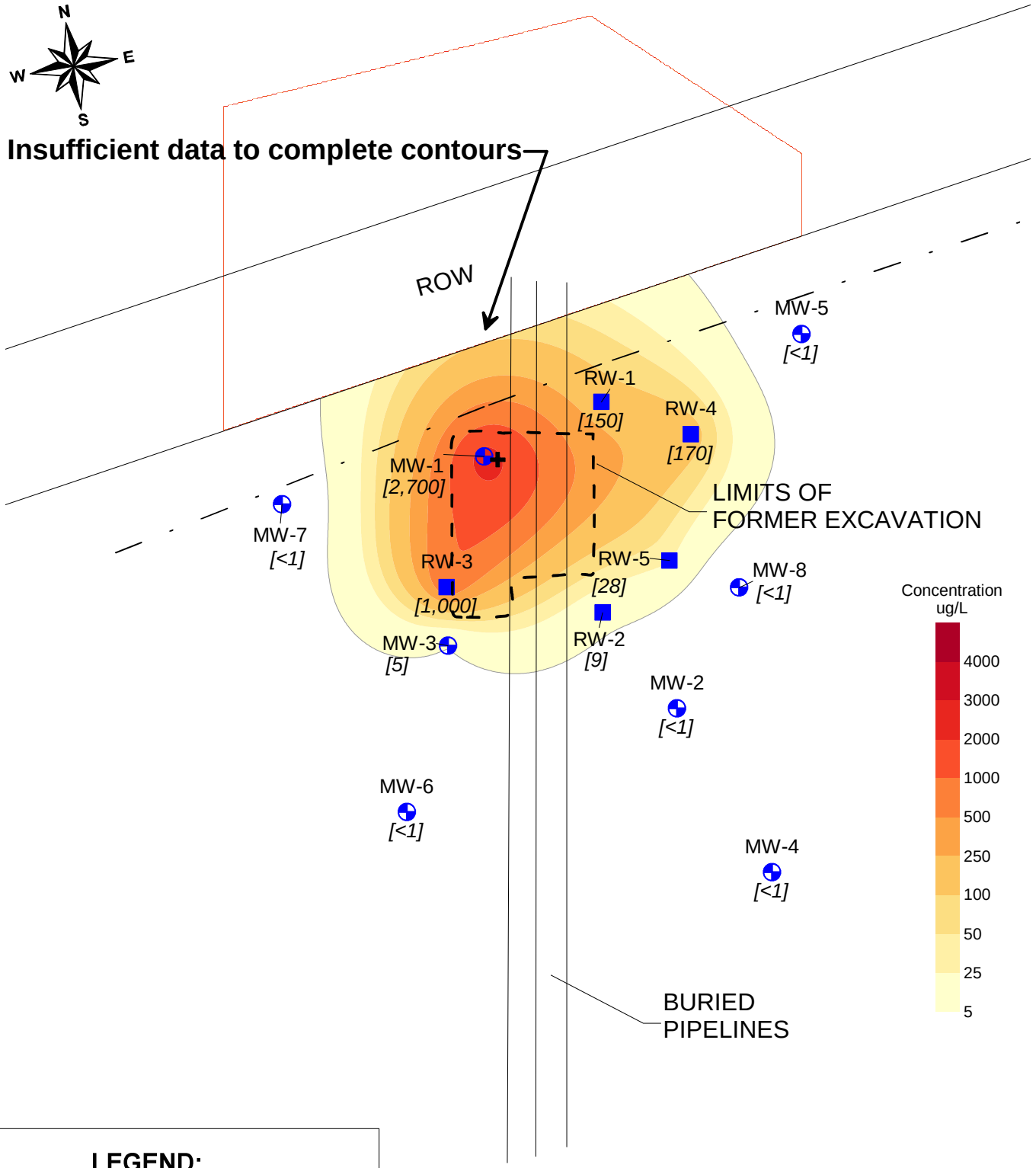
RW ■	RW - Recovery Wells
MW ◔	MW - Monitor Wells
✚	Plume Center of Mass
[2]	Benzene Concentration (ug/L)
[NS (803)]	Well Not Sampled, Assumed Concentration (ug/L)

0 FT 50 FT 100 FT

EARTHCON
Environmental Challenges
BUSINESS SOLUTIONS

Figure 7
2010 - Benzene Isopleth Map
Plains Pipeline, L.P.
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Lea County, New Mexico

PROJ. NO: 205068.00 | DN: KMG | DATE: 1/12



LEGEND:

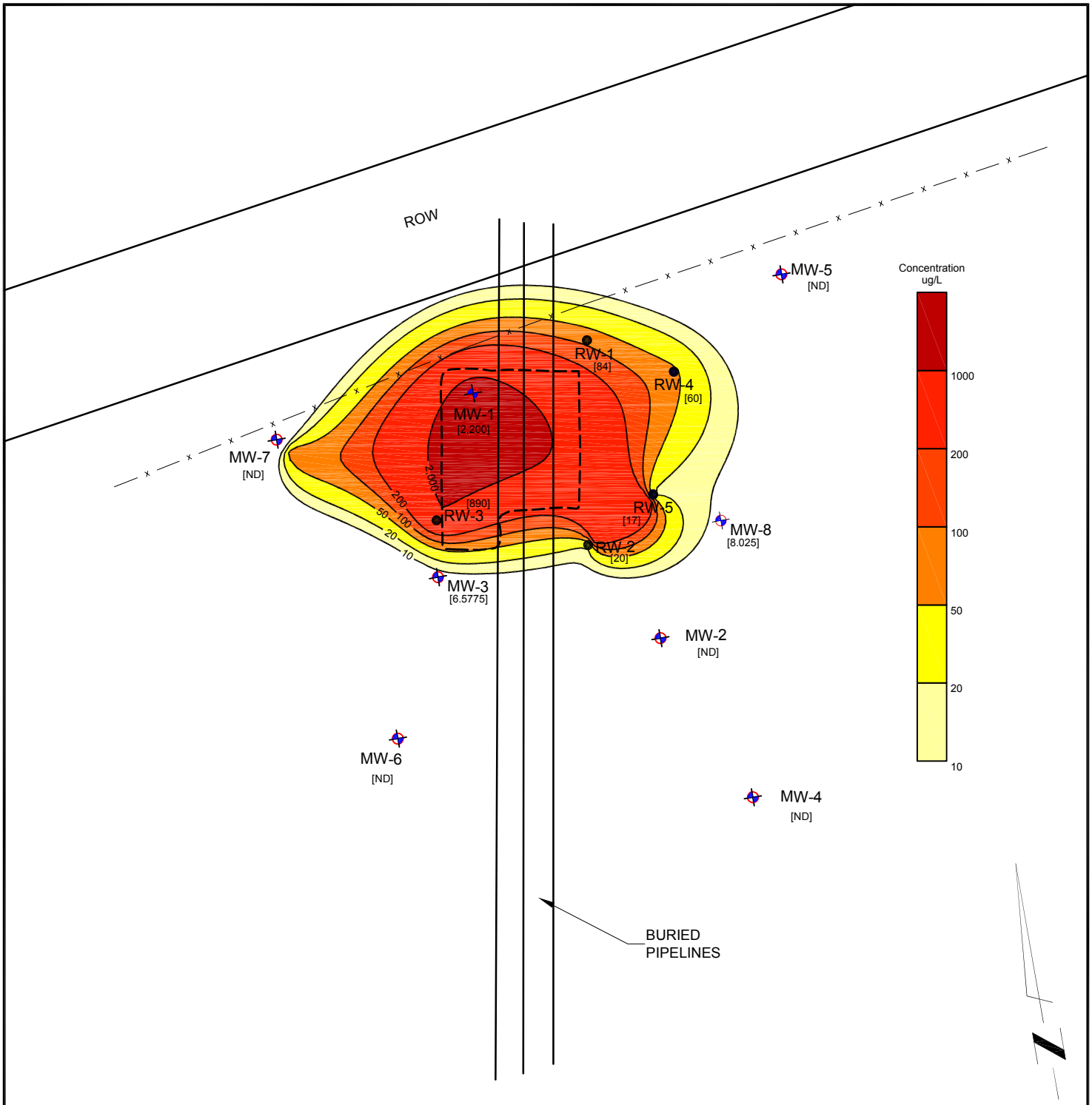
RW ■	RW - Recovery Wells
MW ◔	MW - Monitor Wells
✚	Plume Center of Mass
[2]	Benzene Concentration (ug/L)
[NS (803)]	Well Not Sampled, Assumed Concentration (ug/L)

0 FT 50 FT 100 FT

EARTHCON
Environmental Challenges
BUSINESS SOLUTIONS

Figure 8
2011 - Benzene Isopleth Map
Plains Pipeline, L.P.
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Lea County, New Mexico

PROJ. NO: 205068.00 | DN: KMG | DATE: 1/12



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET
APPROXIMATE SCALE

NOTE:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2012. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5 & MW-1. This wells were only sampled during the 2nd Quarter 2012.

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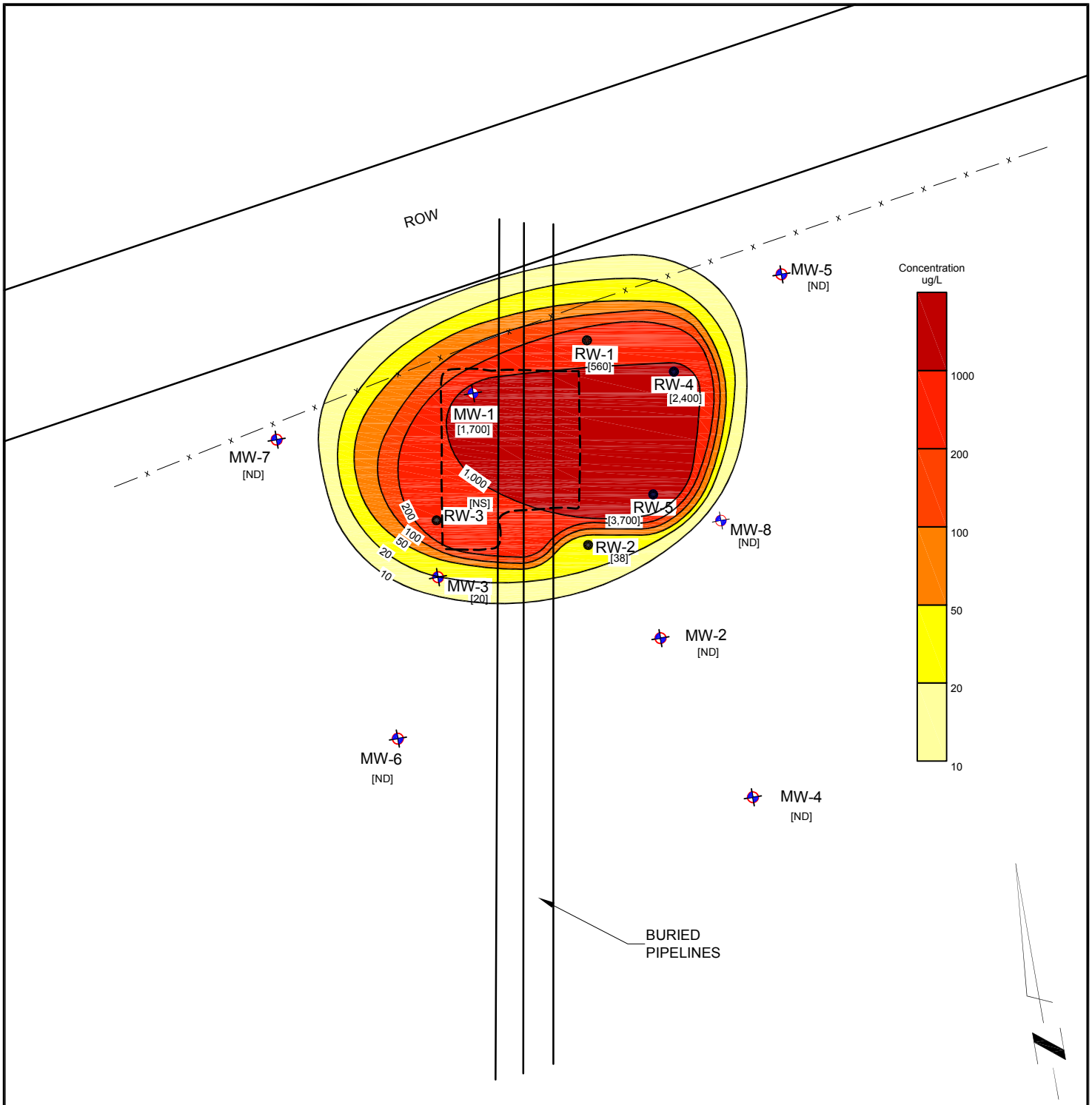
Figure 9
2012 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 3/13



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET
APPROXIMATE SCALE

NOTE:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2013. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5 & MW-1. These wells were only sampled during the 2nd Quarter 2013.

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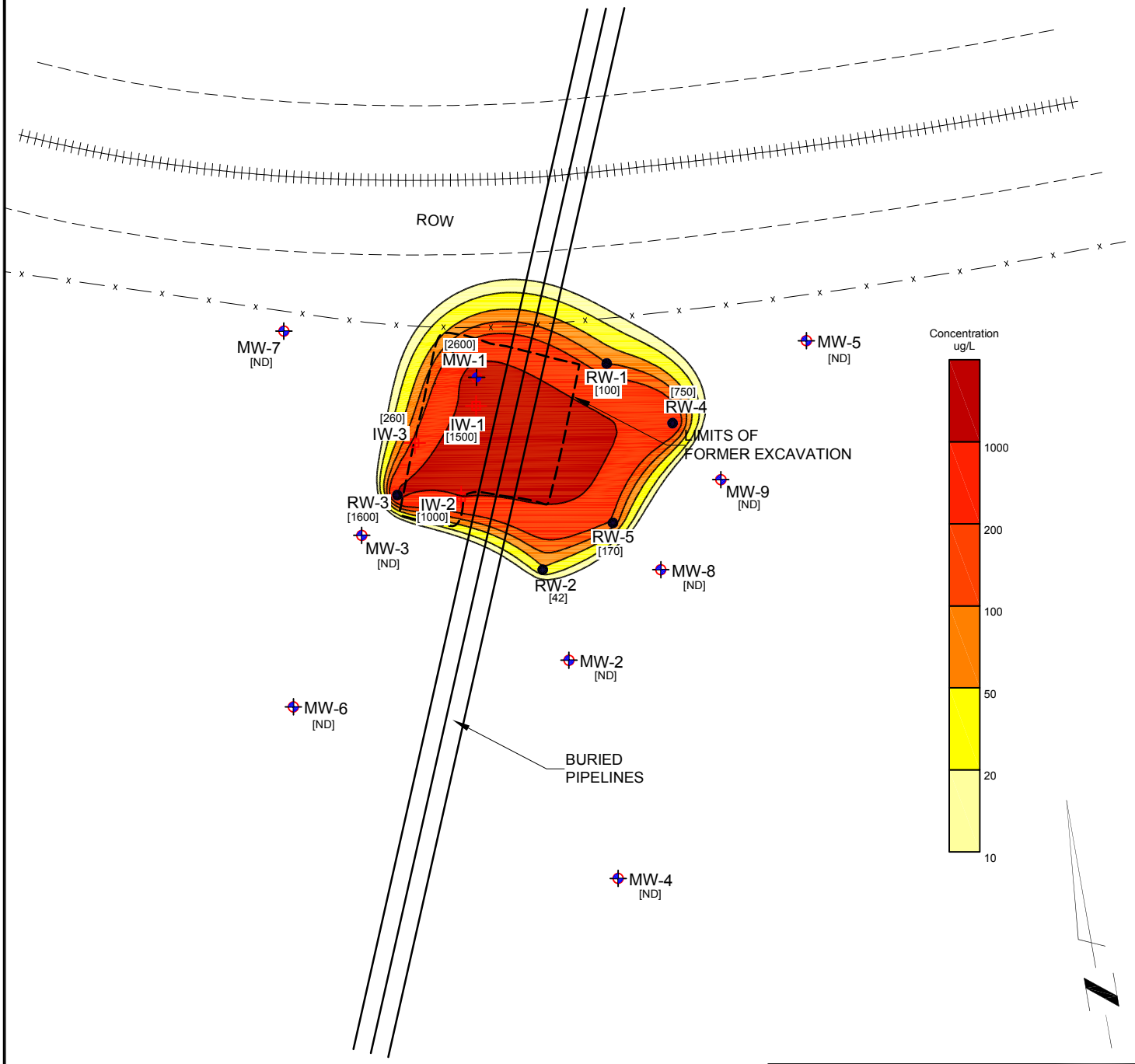
Figure 10
2013 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/14



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET
APPROXIMATE SCALE

NOTE:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2014. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5, IW-1 through IW-3, & MW-1. These wells were only sampled during the 2nd Quarter 2014.

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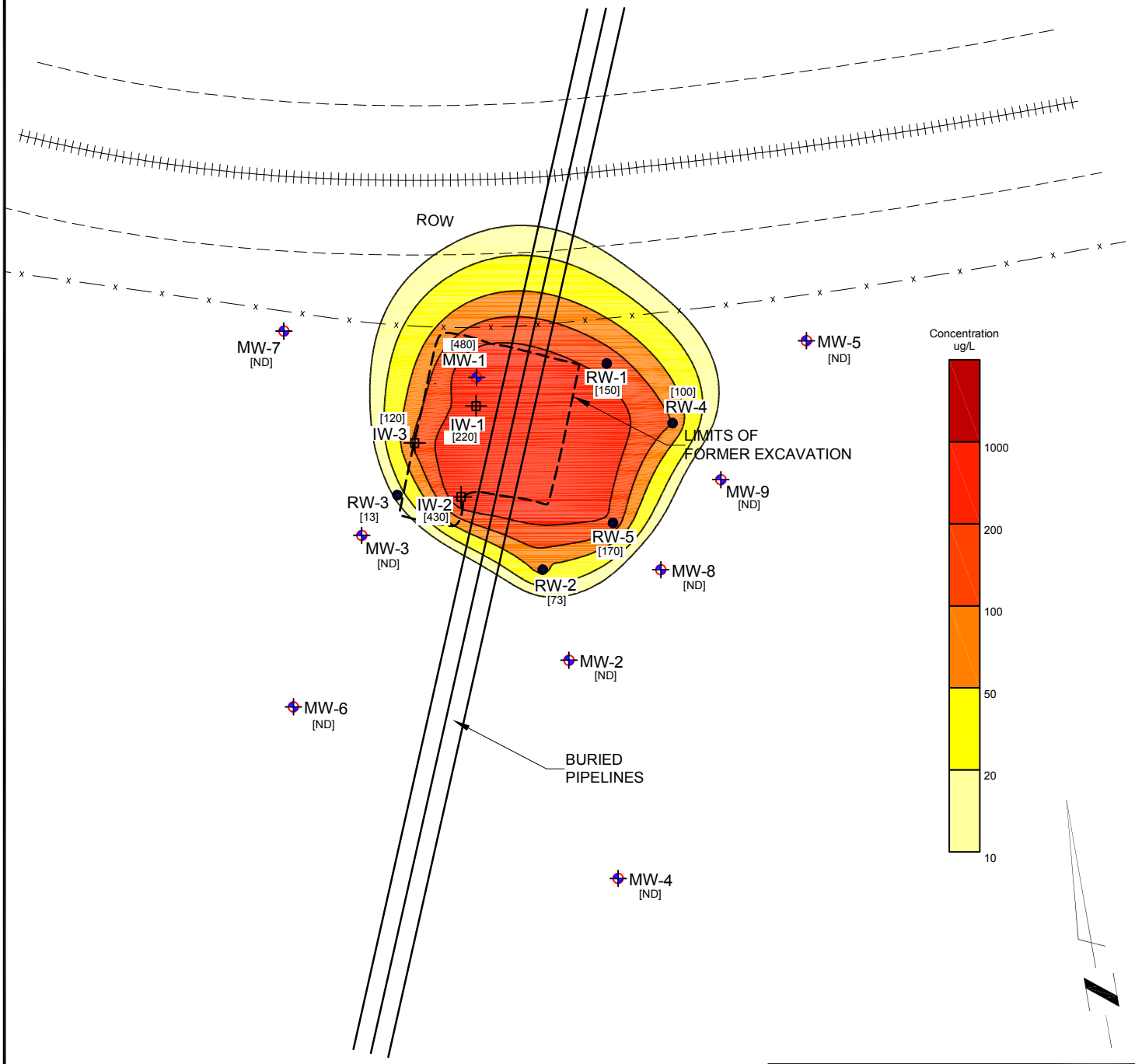
Figure 11
2014 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/15



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET

APPROXIMATE SCALE

NOTE:

The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2015. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5, IW-1 through IW-3, & MW-1. These wells were only sampled during the 2nd Quarter 2015.

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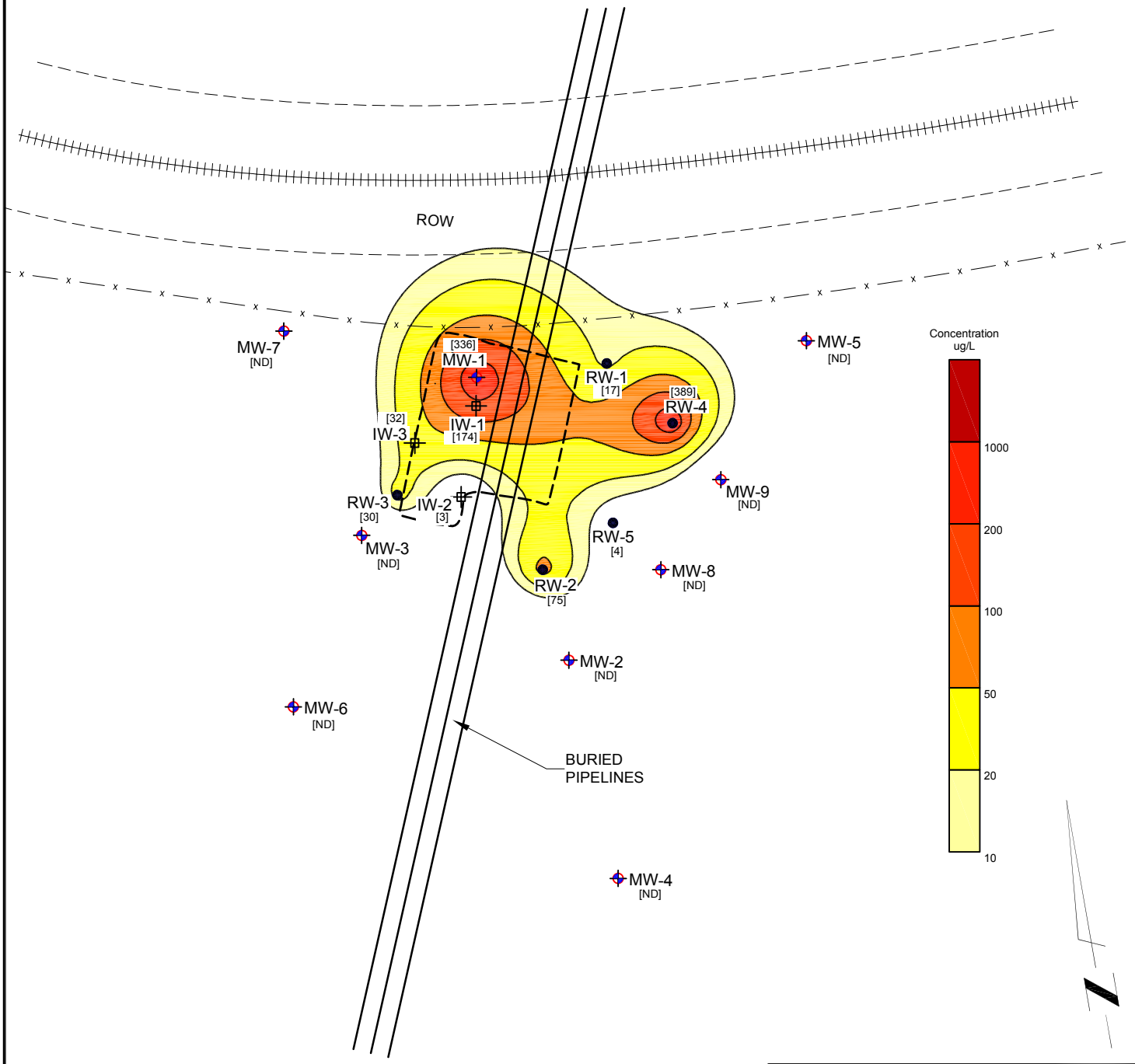
Figure 12
2015 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 1/16



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET

APPROXIMATE SCALE

NOTE:

The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2016. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5, IW-1 through IW-3, & MW-1. These wells were only sampled during the 2nd Quarter 2016

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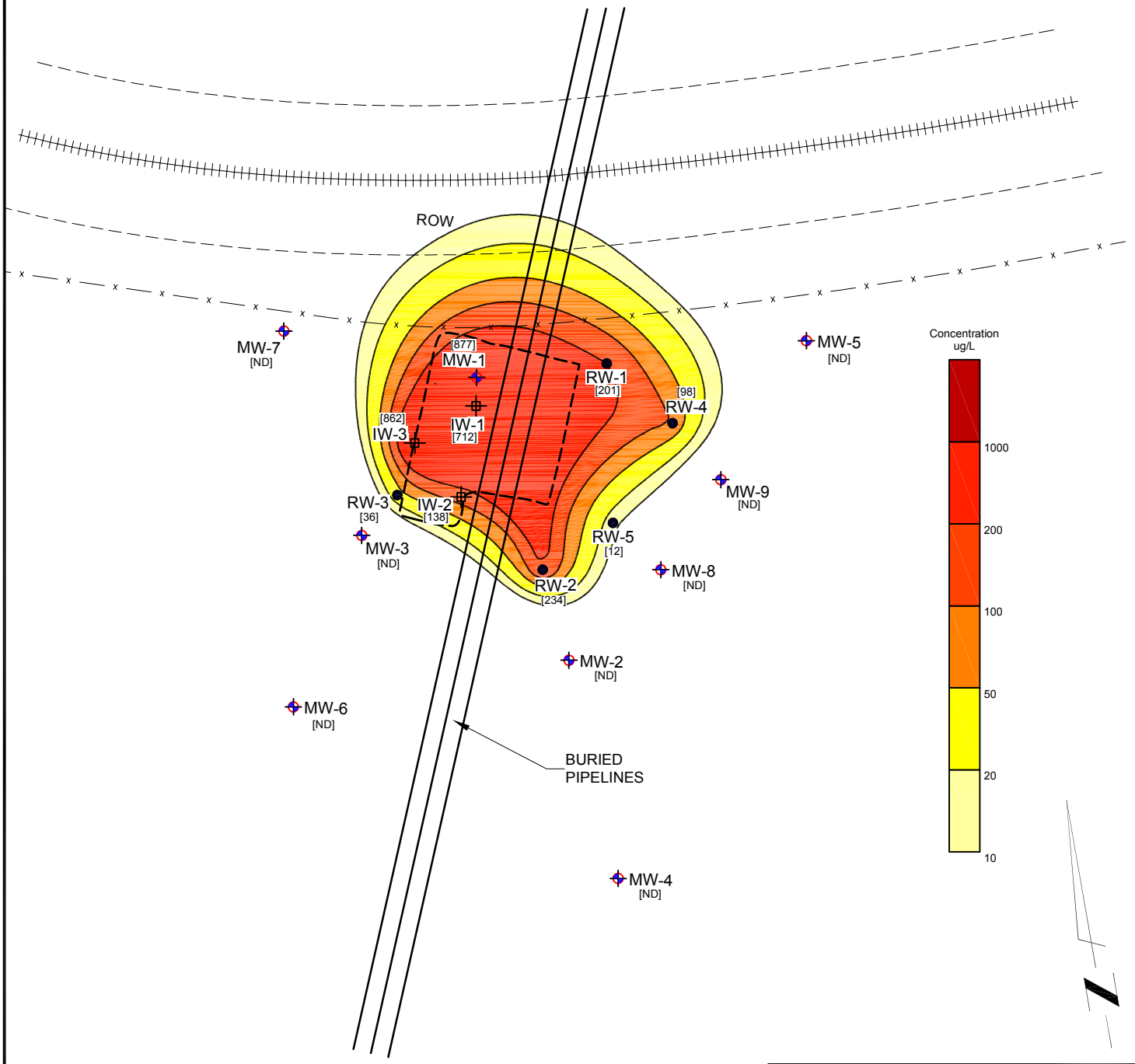
Figure 13
2016 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014	DATE: 1/17



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

0 50

FEET

APPROXIMATE SCALE

NOTE:

The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2017. The only exception is the concentrations reported in groundwater sample collected from RW-1 through RW-5, IW-1 through IW-3, & MW-1. These wells were only sampled during the 2nd Quarter 2017.

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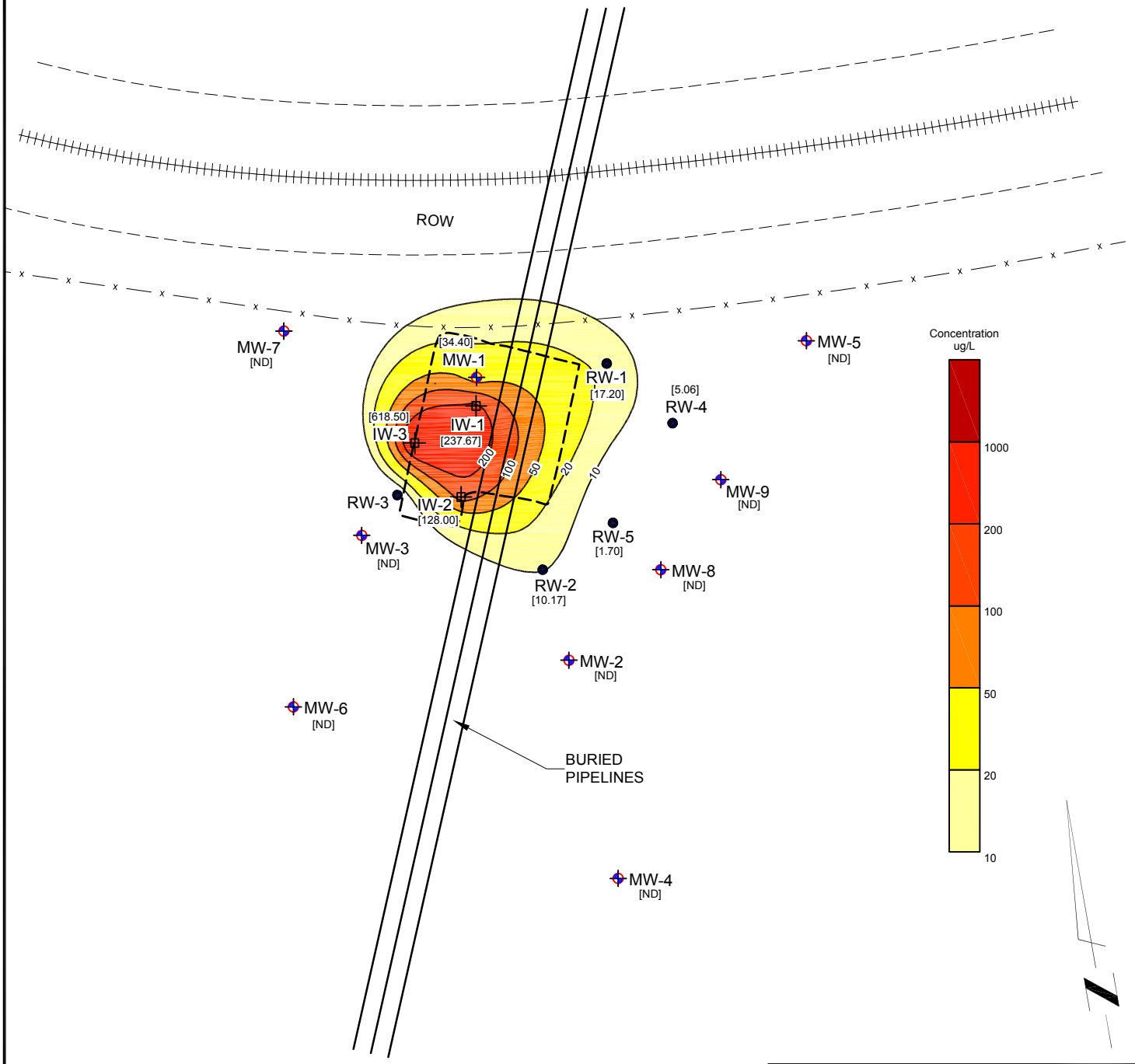
Figure 14
2017 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/18



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

NOTE:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2018.

0 50
FEET
APPROXIMATE SCALE

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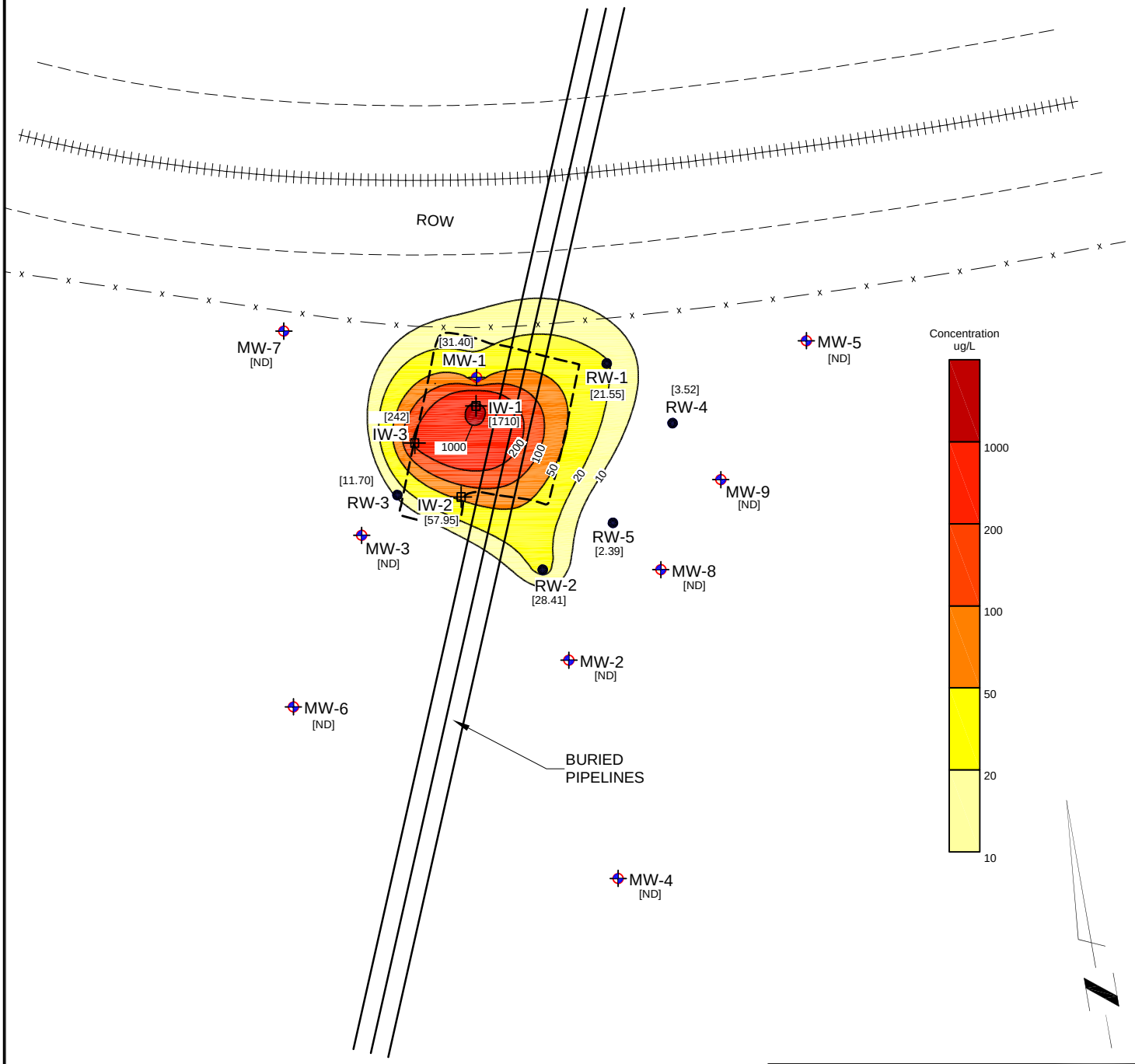
Figure 15
2018 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/19



LEGEND:

- RW-1 -Recovery Well Location
- MW-1 -Monitor Well Location
- [550] -Benzene Concentration in ug/L
- ND -Not Detected

NOTE:
The benzene concentrations presented on this map represent an average of the concentrations reported in the groundwater samples collected during each quarterly sampling event during 2019.

0 50
FEET
APPROXIMATE SCALE

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Figure 16
2019 - Benzene Isopleth Map
Vacuum to Jal 14" Mainline #3
SRS. No.: 2003-00117
Plains Pipeline, L.P.
Lea County, New Mexico

PROJ. NO: PAA12014 | DATE: 2/20

TABLES

TABLE 1
2019 WELL SURVEY DATA AND GROUNDWATER ELEVATION
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)	Comments
MW-1	02/12/19	3362.64	50.60	47.42	47.45	0.03	3315.21	
MW-1	05/09/19	3362.64	50.60	47.40	47.41	0.01	3315.24	Sampled
MW-1	08/21/19	3362.64	50.60	47.36	47.37	0.01	3315.28	
MW-1	11/05/19	3362.64	50.60	47.42	47.43	0.01	3315.22	
MW-2	02/12/19	3367.00	56.11	ND	45.16	ND	3321.84	Sampled
MW-2	05/09/19	3367.00	56.11	ND	45.09	ND	3321.91	Sampled
MW-2	08/21/19	3367.00	56.11	ND	45.09	ND	3321.91	Sampled
MW-2	11/05/19	3367.00	56.11	ND	45.16	ND	3321.84	Sampled
MW-3	02/12/19	3369.1	55.00	ND	46.88	ND	3322.22	Sampled
MW-3	05/09/19	3369.1	55.00	ND	46.83	ND	3322.27	Sampled
MW-3	08/21/19	3369.1	55.00	ND	46.81	ND	3322.29	Sampled
MW-3	11/05/19	3369.1	55.00	ND	46.88	ND	3322.22	Sampled
MW-4	02/12/19	3365.12	59.48	ND	43.34	ND	3321.78	Sampled
MW-4	05/09/19	3365.12	59.48	ND	43.31	ND	3321.81	Sampled
MW-4	08/21/19	3365.12	59.48	ND	43.35	ND	3321.77	Sampled
MW-4	11/05/19	3365.12	59.48	ND	43.42	ND	3321.70	Sampled
MW-5	02/12/19	3364.74	53.14	ND	42.93	ND	3321.81	Sampled
MW-5	05/09/19	3364.74	53.14	ND	42.90	ND	3321.84	Sampled
MW-5	08/21/19	3364.74	53.14	ND	42.88	ND	3321.86	Sampled
MW-5	11/05/19	3364.74	53.14	ND	42.96	ND	3321.78	Sampled
MW-6	02/12/19	3368.96	59.48	ND	46.73	ND	3322.23	Sampled
MW-6	05/09/19	3368.96	59.48	ND	46.64	ND	3322.32	Sampled
MW-6	08/21/19	3368.96	59.48	ND	46.69	ND	3322.27	Sampled
MW-6	11/05/19	3368.96	59.48	ND	46.72	ND	3322.24	Sampled
MW-7	02/12/19	3370.25	58.55	ND	47.73	ND	3322.52	Sampled
MW-7	05/09/19	3370.25	58.55	ND	47.65	ND	3322.60	Sampled
MW-7	08/21/19	3370.25	58.55	ND	47.63	ND	3322.62	Sampled
MW-7	11/05/19	3370.25	58.55	ND	47.74	ND	3322.51	Sampled

TABLE 1
2019 WELL SURVEY DATA AND GROUNDWATER ELEVATION
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)	Comments
MW-8	02/12/19	3365.11	59.62	ND	43.23	ND	3321.88	Sampled
MW-8	05/09/19	3365.11	59.62	ND	43.18	ND	3321.93	Sampled
MW-8	08/21/19	3365.11	59.62	ND	43.18	ND	3321.93	Sampled
MW-8	11/05/19	3365.11	59.62	ND	43.25	ND	3321.86	Sampled
MW-9	02/12/19	3364.69	62.60	ND	42.60	ND	3322.09	Sampled
MW-9	05/09/19	3364.69	62.60	ND	42.56	ND	3322.13	Sampled
MW-9	08/21/19	3364.69	62.60	ND	42.56	ND	3322.13	Sampled
MW-9	11/05/19	3364.69	62.60	ND	42.63	ND	3322.06	Sampled
RW-1	02/12/19	3368.12	58.70	46.05	46.07	0.02	3322.07	
RW-1	05/09/19	3368.12	58.70	Sheen	46.00	Sheen	3322.12	Sampled
RW-1	08/21/19	3368.12	58.70	Sheen	45.98	Sheen	3322.14	Sampled
RW-1	11/05/19	3368.12	58.70	46.05	46.06	0.01	3322.07	
RW-2	02/12/19	3368.32	58.98	46.30	46.32	0.02	3322.02	Sampled
RW-2	05/09/19	3368.32	58.98	Sheen	46.25	Sheen	3322.07	Sampled
RW-2	08/21/19	3368.32	48.98	Sheen	46.25	Sheen	3322.07	Sampled
RW-2	11/05/19	3368.32	48.98	Sheen	46.32	Sheen	3322.00	Sampled
RW-3	02/12/19	3369.05	59.57	46.79	46.80	0.01	3322.26	
RW-3	05/09/19	3369.05	59.57	sheen	46.74	sheen	3322.31	Sampled
RW-3	08/21/19	3369.05	59.57	46.77	46.78	0.01	3322.28	
RW-3	11/05/19	3369.05	59.57	46.76	46.77	0.01	3322.29	
RW-4	02/12/19	3367.11	57.63	45.45	45.47	0.02	3321.66	
RW-4	05/09/19	3367.11	57.63	nd	45.46	nd	3321.65	Sampled
RW-4	08/21/19	3367.11	57.63	sheen	45.40	sheen	3321.71	Sampled
RW-4	11/05/19	3367.11	57.63	nd	45.50	nd	3321.61	Sampled
RW-5	02/12/19	3368.34	59.73	46.28	46.29	0.01	3322.06	
RW-5	05/09/19	3368.34	59.73	Sheen	46.25	Sheen	3322.09	Sampled
RW-5	08/21/19	3368.34	59.73	Sheen	46.23	Sheen	3322.11	Sampled
RW-5	11/05/19	3368.34	59.73	nd	56.31	nd	3312.03	Sampled

TABLE 1
2019 WELL SURVEY DATA AND GROUNDWATER ELEVATION
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)	Comments
IW-1	02/12/19	3368.53	64.00	46.63	46.64	0.01	3321.90	
IW-1	05/09/19	3368.53	64.00	46.50	46.52	0.02	3322.03	Sampled
IW-1	08/21/19	3368.53	64.00	46.55	46.56	0.01	3321.98	pump
IW-1	11/05/19	3368.53	64.00	nd	46.65	nd	3321.88	pump
IW-2	02/12/19	3368.63	64.05	46.62	46.63	0.01	3322.01	Sampled
IW-2	05/09/19	3368.63	64.05	sheen	46.54	sheen	3322.09	Sampled
IW-2	08/21/19	3368.63	64.05	sheen	46.64	sheen	3321.99	Sampled
IW-2	11/05/19	3368.63	64.05	46.75	46.78	0.03	3321.88	pump
IW-3	02/12/19	3368.96	63.86	46.79	46.84	0.05	3322.16	Sampled
IW-3	05/09/19	3368.96	63.86	46.74	46.79	0.05	3322.21	Sampled
IW-3	08/21/19	3368.96	63.86	46.74	46.75	0.01	3322.22	pump
IW-3	11/05/19	3368.96	63.86	46.75	46.82	0.07	3322.20	pump

NA: Not applicable
ND: Not detected
NS: Not surveyed

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-1	01/04/18	3362.64	50.60	Sheen	48.53	Sheen	NA	Sheen	8.50	3314.11	
MW-1	01/10/18	3362.64	50.60	nd	48.36	nd	NA	NA	NA	3314.28	
MW-1	01/18/18	3362.64	50.60	nd	48.37	nd	NA	NA	NA	3314.27	
MW-1	01/25/18	3362.64	50.60	Sheen	48.30	Sheen	NA	NA	NA	3314.34	
MW-1	02/01/18	3362.64	50.60	Sheen	48.70	Sheen	NA	NA	NA	3313.94	
MW-1	02/14/18	3362.64	50.60	Sheen	48.16	Sheen	NA	NA	NA	3314.48	
MW-1	02/21/18	3362.64	50.60	Sheen	48.21	Sheen	NA	Sheen	10.00	3314.43	
MW-1	02/28/18	3362.64	50.60	Sheen	48.01	Sheen	NA	Sheen	10.00	3314.63	
MW-1	03/07/18	3362.64	50.60	48.26	48.28	0.02	NA	NA	NA	3314.38	
MW-1	03/15/18	3362.64	50.60	Sheen	48.00	Sheen	NA	Sheen	10.00	3314.64	
MW-1	03/22/18	3362.64	50.60	48.11	48.12	0.01	NA	NA	NA	3314.53	
MW-1	03/28/18	3362.64	50.60	Sheen	48.06	Sheen	NA	Sheen	10.00	3314.58	
MW-1	04/04/18	3362.64	50.60	Sheen	48.18	Sheen	NA	Sheen	10.00	3314.46	
MW-1	04/11/18	3362.64	50.60	Sheen	48.20	Sheen	NA	Sheen	10.00	3314.44	
MW-1	04/19/18	3362.64	50.60	Sheen	48.22	Sheen	NA	Sheen	10.00	3314.42	
MW-1	04/24/18	3362.64	50.60	Sheen	48.24	Sheen	NA	Sheen	10.00	3314.40	
MW-1	05/09/18	3362.64	50.60	Sheen	47.90	Sheen	NA	Sheen	10.00	3314.74	
MW-1	05/15/18	3362.64	50.60	Sheen	47.88	Sheen	NA	Sheen	10.00	3314.76	
MW-1	05/22/18	3362.64	50.60	Sheen	47.85	Sheen	NA	Sheen	10.00	3314.79	
MW-1	05/30/18	3362.64	50.60	Sheen	47.85	Sheen	NA	Sheen	10.00	3314.79	
MW-1	06/05/18	3362.64	50.60	Sheen	47.84	Sheen	NA	NA	NA	3314.80	
MW-1	06/13/18	3362.64	50.60	Sheen	47.87	Sheen	NA	Sheen	10.00	3314.77	
MW-1	06/19/18	3362.64	50.60	Sheen	47.85	Sheen	NA	Sheen	10.00	3314.79	
MW-1	06/29/18	3362.64	50.60	Sheen	47.88	Sheen	NA	Sheen	10.00	3314.76	
MW-1	07/05/18	3362.64	50.60	nd	47.88	nd	NA	Sheen	10.00	3314.76	
MW-1	07/11/18	3362.64	50.60	nd	47.90	nd	NA	NA	NA	3314.74	
MW-1	07/18/18	3362.64	50.60	nd	47.86	nd	NA	NA	NA	3314.78	
MW-1	07/26/18	3362.64	50.60	Sheen	47.82	Sheen	NA	Sheen	10.00	3314.82	
MW-1	07/31/18	3362.64	50.60	47.80	47.83	0.03	NA	Sheen	10.00	3314.84	
MW-1	08/07/18	3362.64	50.60	47.78	47.80	0.02	NA	Sheen	10.00	3314.86	
MW-1	08/14/18	3362.64	50.60	47.74	47.75	0.01	NA	Sheen	10.00	3314.90	
MW-1	08/21/18	3362.64	50.60	47.72	47.74	0.02	NA	Sheen	10.00	3314.92	
MW-1	08/30/18	3362.64	50.60	47.76	47.78	0.02	NA	Sheen	10.00	3314.88	
MW-1	09/06/18	3362.64	50.60	46.44	46.45	0.01	NA	Sheen	10.00	3316.20	
MW-1	09/26/18	3362.64	50.60	47.75	47.78	0.03	NA	Sheen	10.00	3314.89	
MW-1	10/03/18	3362.64	50.60	47.77	47.80	0.03	NA	Sheen	10.00	3314.87	
MW-1	10/11/18	3362.64	50.60	47.74	47.75	0.01	NA	Sheen	10.00	3314.90	

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-1	10/17/18	3362.64	50.60	47.21	47.22	0.01	NA	Sheen	10.00	3315.43	
MW-1	10/24/18	3362.64	50.60	47.70	47.71	0.01	NA	Sheen	10.00	3314.94	
MW-1	10/31/18	3362.64	50.60	nd	47.62	nd	NA	NA	NA	3315.02	
MW-1	11/06/18	3362.64	50.60	47.63	47.64	0.01	NA	Sheen	10.00	3315.01	
MW-1	11/13/18	3362.64	50.60	Sheen	47.67	Sheen	NA	Sheen	10.00	3314.97	
MW-1	11/21/18	3362.64	50.60	47.62	47.64	0.02	NA	Sheen	10.00	3315.02	
MW-1	11/28/18	3362.64	50.60	47.51	47.52	0.01	NA	Sheen	10.00	3315.13	
MW-1	12/07/18	3362.64	50.60	47.48	47.50	0.02	NA	Sheen	10.00	3315.16	
MW-1	12/12/18	3362.64	50.60	47.50	47.51	0.01	NA	Sheen	10.00	3315.14	
MW-1	12/18/18	3362.64	50.60	Sheen	47.52	Sheen	NA	Sheen	10.00	3315.12	
MW-1	01/03/19	3362.64	50.60	ND	47.52	ND	NA	NA	NA	3315.12	
MW-1	01/08/19	3362.64	50.60	Sheen	47.58	Sheen	NA	Sheen	10.00	3315.06	
MW-1	01/17/19	3362.64	50.60	Sheen	47.48	Sheen	NA	NA	10.00	3315.16	
MW-1	01/22/19	3362.64	50.60	Sheen	47.55	Sheen	NA	Sheen	10.00	3315.09	
MW-1	01/29/19	3362.64	50.60	47.50	47.51	0.01	NA	Sheen	10.00	3315.14	
MW-1	02/05/19	3362.64	50.60	47.55	47.57	0.02	NA	Sheen	10.00	3315.09	
MW-1	02/13/19	3362.64	50.60	47.42	47.45	0.03	NA	Sheen	10.00	3315.22	
MW-1	02/22/19	3362.64	50.60	47.44	47.45	0.01	NA	Sheen	10.00	3315.20	
MW-1	02/27/19	3362.64	50.60	47.52	47.55	0.03	NA	Sheen	10.00	3315.12	
MW-1	03/06/19	3362.64	50.60	47.58	47.59	0.01	NA	Sheen	10.00	3315.06	
MW-1	03/12/19	3362.64	50.60	47.60	47.62	0.02	NA	Sheen	10.00	3315.04	
MW-1	03/22/19	3362.64	50.60	47.62	47.64	0.02	NA	Sheen	10.00	3315.02	
MW-1	03/28/19	3362.64	50.60	47.57	47.62	0.05	NA	Sheen	10.00	3315.06	
MW-1	04/02/19	3362.64	50.60	47.30	47.31	0.01	NA	Sheen	10.00	3315.34	
MW-1	04/10/19	3362.64	50.60	47.20	47.23	0.03	NA	NA	10.00	3315.44	
MW-1	04/16/19	3362.64	50.60	47.25	47.27	0.02	NA	Sheen	10.00	3315.39	
MW-1	04/24/19	3362.64	50.60	47.27	47.28	0.01	NA	Sheen	10.00	3315.37	
MW-1	05/01/19	3362.64	50.60	47.02	47.03	0.01	NA	NA	10.00	3315.62	
MW-1	05/09/19	3362.64	50.60	47.40	47.41	0.01	NA	Sheen	10.00	3315.24	
MW-1	05/17/19	3362.64	50.60	47.45	47.46	0.01	NA	Sheen	10.00	3315.19	
MW-1	05/24/19	3362.64	50.60	Sheen	47.50	Sheen	NA	NA	10.00	3315.14	
MW-1	06/05/19	3362.64	50.60	nd	47.54	nd	NA	NA	10.00	3315.10	
MW-1	06/14/19	3362.64	50.60	46.28	46.32	0.04	NA	Sheen	10.00	3316.35	
MW-1	06/20/19	3362.64	50.60	47.57	47.58	0.01	NA	NA	10.00	3315.07	
MW-1	06/25/19	3362.64	50.60	47.30	47.34	0.04	NA	Sheen	10.00	3315.33	
MW-1	07/02/19	3362.64	50.60	47.30	47.36	0.06	NA	Sheen	10.00	3315.33	
MW-1	07/10/19	3362.64	50.60	47.25	47.28	0.03	NA	Sheen	10.00	3315.39	

TABLE 2
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Plains Marketing, L.P.
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-1	07/26/19	3362.64	50.60	47.32	47.35	0.03	NA	Sheen	10.00	3315.32	
MW-1	08/11/19	3362.64	50.60	47.35	47.39	0.04	NA	Sheen	10.00	3315.28	
MW-1	08/14/19	3362.64	50.60	47.42	47.48	0.06	NA	Sheen	10.00	3315.21	
MW-1	08/21/19	3362.64	50.60	47.36	47.37	0.01	NA	Sheen	10.00	3315.28	
MW-1	09/06/19	3362.64	50.60	47.45	47.50	0.05	NA	Sheen	10.00	3315.18	
MW-1	09/12/19	3362.64	50.60	47.42	47.45	0.03	NA	Sheen	10.00	3315.22	
MW-1	09/19/19	3362.64	50.60	47.38	47.41	0.03	NA	Sheen	10.00	3315.26	
MW-1	10/08/19	3362.64	50.60	Sheen	47.43	Sheen	NA	Sheen	10.00	3315.21	
MW-1	10/16/19	3362.64	50.60	Sheen	47.45	Sheen	NA	Sheen	10.00	3315.19	
MW-1	10/23/19	3362.64	50.60	41.35	41.38	0.03	NA	Sheen	10.00	3321.29	
MW-1	10/31/19	3362.64	50.60	47.42	47.45	0.03	NA	Sheen	10.00	3315.22	
MW-1	11/05/19	3362.64	50.60	47.42	47.43	0.01	NA	sheen	10.00	3315.22	
MW-1	11/14/19	3362.64	50.60	47.40	47.42	0.02	NA	Sheen	10.00	3315.24	
MW-1	11/26/19	3362.64	50.60	47.24	47.28	0.04	NA	Sheen	10.00	3315.39	
MW-1	12/04/19	3362.64	50.60	47.31	47.38	0.07	NA	Sheen	10.00	3315.32	
MW-1	12/13/19	3362.64	50.60	47.25	47.50	0.25	NA	Sheen	10.00	3315.35	
MW-1	12/20/19	3362.64	50.60	47.27	47.70	0.43	NA	Sheen	10.00	3315.31	
MW-1	12/26/19	3362.64	50.60	47.28	47.31	0.03	NA	Sheen	10.00	3315.36	
MW-2	03/07/18	3367.00	56.11	ND	45.81	ND	NA	NA	NA	3321.19	Sampled
MW-2	06/05/18	3367.00	56.11	ND	45.49	ND	NA	NA	NA	3321.51	Sampled
MW-2	09/06/18	3367.00	56.11	ND	45.52	ND	NA	NA	NA	3321.48	Sampled
MW-2	11/28/18	3367.00	56.11	ND	45.20	ND	NA	NA	NA	3321.80	Sampled
MW-2	02/12/19	3367.00	56.11	ND	45.16	ND	NA	NA	NA	3321.84	Sampled
MW-2	05/09/19	3367.00	56.11	ND	45.09	ND	NA	NA	NA	3321.91	Sampled
MW-2	08/21/19	3367.00	56.11	ND	45.09	ND	NA	NA	NA	3321.91	Sampled
MW-2	11/05/19	3367.00	56.11	ND	45.16	ND	NA	NA	NA	3321.84	Sampled
MW-3	1/4/2018	3369.1	55.00	ND	47.92	ND	NA	NA	NA	3321.18	
MW-3	1/10/2018	3369.1	55.00	ND	47.78	ND	NA	NA	NA	3321.32	
MW-3	1/18/2018	3369.1	55.00	ND	47.36	ND	NA	NA	NA	3321.74	
MW-3	1/25/2018	3369.1	55.00	ND	47.71	ND	NA	NA	NA	3321.39	
MW-3	2/1/2018	3369.1	55.00	ND	47.4	ND	NA	NA	NA	3321.70	
MW-3	2/14/2018	3369.1	55.00	ND	47.57	ND	NA	NA	NA	3321.53	
MW-3	2/21/2018	3369.1	55.00	ND	47.65	ND	NA	NA	NA	3321.45	
MW-3	2/28/2018	3369.1	55.00	ND	47.38	ND	NA	NA	NA	3321.72	
MW-3	3/7/2018	3369.1	55.00	ND	47.57	ND	NA	NA	NA	3321.53	Sampled

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-3	3/15/2018	3369.1	55.00	ND	47.65	ND	NA	NA	NA	3321.45	
MW-3	3/22/2018	3369.1	55.00	ND	47.53	ND	NA	NA	NA	3321.57	
MW-3	3/28/2018	3369.1	55.00	ND	47.47	ND	NA	NA	10	3321.63	
MW-3	4/4/2018	3369.1	55.00	ND	47.56	ND	NA	NA	10	3321.54	
MW-3	4/11/2018	3369.1	55.00	ND	47.6	ND	NA	NA	NA	3321.50	
MW-3	4/19/2018	3369.1	55.00	ND	47.64	ND	NA	NA	NA	3321.46	
MW-3	4/24/2018	3369.1	55.00	ND	47.65	ND	NA	NA	NA	3321.45	
MW-3	5/9/2018	3369.1	55.00	ND	47.33	ND	NA	NA	NA	3321.77	
MW-3	5/15/2018	3369.1	55.00	ND	47.31	ND	NA	NA	NA	3321.79	
MW-3	5/22/2018	3369.1	55.00	ND	47.31	ND	NA	NA	NA	3321.79	
MW-3	5/30/2018	3369.1	55.00	ND	47.26	ND	NA	NA	NA	3321.84	
MW-3	6/5/2018	3369.1	55.00	ND	47.25	ND	NA	NA	NA	3321.85	
MW-3	6/13/2018	3369.1	55.00	ND	47.28	ND	NA	NA	NA	3321.82	
MW-3	6/19/2018	3369.1	55.00	ND	47.3	ND	NA	NA	NA	3321.80	
MW-3	6/29/2018	3369.1	55.00	ND	47.28	ND	NA	NA	NA	3321.82	
MW-3	7/5/2018	3369.1	55.00	ND	47.29	ND	NA	NA	NA	3321.81	
MW-3	7/11/2018	3369.1	55.00	ND	47.31	ND	NA	NA	NA	3321.79	
MW-3	7/18/2018	3369.1	55.00	ND	47.26	ND	NA	NA	NA	3321.84	
MW-3	7/26/2018	3369.1	55.00	ND	47.24	ND	NA	NA	NA	3321.86	
MW-3	7/31/2018	3369.1	55.00	ND	47.22	ND	NA	NA	NA	3321.88	
MW-3	8/7/2018	3369.1	55.00	ND	47.21	ND	NA	NA	NA	3321.89	
MW-3	8/14/2018	3369.1	55.00	ND	47.17	ND	NA	NA	NA	3321.93	
MW-3	8/21/2018	3369.1	55.00	ND	47.15	ND	NA	NA	NA	3321.95	
MW-3	8/30/2018	3369.1	55.00	ND	47.21	ND	NA	NA	NA	3321.89	
MW-3	9/6/2018	3369.1	55.00	ND	47.26	ND	NA	NA	NA	3321.84	Sampled
MW-3	9/26/2018	3369.1	55.00	ND	47.20	ND	NA	NA	NA	3321.90	
MW-3	10/3/2018	3369.1	55.00	ND	47.20	ND	NA	NA	NA	3321.90	
MW-3	10/11/2018	3369.1	55.00	ND	47.18	ND	NA	NA	NA	3321.92	
MW-3	10/17/2018	3369.1	55.00	ND	46.72	ND	NA	NA	NA	3322.38	
MW-3	10/24/2018	3369.1	55.00	ND	47.11	ND	NA	NA	NA	3321.99	
MW-3	10/31/2018	3369.1	55.00	ND	47.12	ND	NA	NA	NA	3321.98	
MW-3	11/6/2018	3369.1	55.00	ND	47.15	ND	NA	NA	NA	3321.95	
MW-3	11/13/2018	3369.1	55.00	ND	47.18	ND	NA	NA	NA	3321.92	
MW-3	11/21/2018	3369.1	55.00	ND	47.06	ND	NA	NA	NA	3322.04	
MW-3	11/28/2018	3369.1	55.00	ND	46.96	ND	NA	NA	NA	3322.14	Sampled
MW-3	12/7/2018	3369.1	55.00	ND	46.94	ND	NA	NA	NA	3322.16	
MW-3	12/12/2018	3369.1	55.00	ND	46.95	ND	NA	NA	NA	3322.15	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-3	12/18/2018	3369.1	55.00	ND	46.9	ND	NA	NA	NA	3322.20	
MW-3	1/3/2019	3369.1	55.00	ND	46.9	ND	NA	NA	NA	3322.20	
MW-3	1/8/2019	3369.1	55.00	ND	46.92	ND	NA	NA	NA	3322.18	
MW-3	1/17/2019	3369.1	55.00	ND	46.89	ND	NA	NA	NA	3322.21	
MW-3	1/22/2019	3369.1	55.00	ND	46.95	ND	NA	NA	NA	3322.15	
MW-3	1/29/2019	3369.1	55.00	ND	46.92	ND	NA	NA	NA	3322.18	
MW-3	2/5/2019	3369.1	55.00	ND	46.95	ND	NA	NA	NA	3322.15	
MW-3	2/12/2019	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	Sampled
MW-3	2/22/2019	3369.1	55.00	ND	46.85	ND	NA	NA	NA	3322.25	
MW-3	2/27/2019	3369.1	55.00	ND	46.94	ND	NA	NA	NA	3322.16	
MW-3	3/6/2019	3369.1	55.00	ND	46.96	ND	NA	NA	NA	3322.14	
MW-3	3/12/2019	3369.1	55.00	ND	46.97	ND	NA	NA	NA	3322.13	
MW-3	3/22/2019	3369.1	55.00	ND	46.98	ND	NA	NA	NA	3322.12	
MW-3	3/28/2019	3369.1	55.00	ND	46.81	ND	NA	NA	NA	3322.29	
MW-3	4/2/2019	3369.1	55.00	ND	46.62	ND	NA	NA	NA	3322.48	
MW-3	4/10/2019	3369.1	55.00	ND	46.63	ND	NA	NA	NA	3322.47	
MW-3	4/16/2019	3369.1	55.00	ND	46.64	ND	NA	NA	NA	3322.46	
MW-3	4/24/2019	3369.1	55.00	ND	46.65	ND	NA	NA	NA	3322.45	
MW-3	5/1/2019	3369.1	55.00	ND	46.60	ND	NA	NA	NA	3322.50	
MW-3	5/9/2019	3369.1	55.00	ND	46.83	ND	NA	NA	NA	3322.27	Sampled
MW-3	5/17/2019	3369.1	55.00	ND	46.84	ND	NA	NA	NA	3322.26	
MW-3	5/24/2019	3369.1	55.00	ND	46.85	ND	NA	NA	NA	3322.25	
MW-3	6/5/2019	3369.1	55.00	ND	46.86	ND	NA	NA	NA	3322.24	
MW-3	6/14/2019	3369.1	55.00	ND	46.7	ND	NA	NA	NA	3322.40	
MW-3	6/20/2019	3369.1	55.00	ND	43.26	ND	NA	NA	NA	3325.84	
MW-3	6/25/2019	3369.1	55.00	ND	46.72	ND	NA	NA	NA	3322.38	
MW-3	7/2/2019	3369.1	55.00	ND	46.12	ND	NA	NA	NA	3322.98	
MW-3	7/10/2019	3369.1	55.00	ND	46.70	ND	NA	NA	NA	3322.40	
MW-3	7/26/2019	3369.1	55.00	ND	46.76	ND	NA	NA	NA	3322.34	
MW-3	8/11/2019	3369.1	55.00	ND	46.81	ND	NA	NA	10	3322.29	
MW-3	8/14/2019	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	
MW-3	8/21/2019	3369.1	55.00	ND	46.81	ND	NA	NA	NA	3322.29	
MW-3	9/6/2019	3369.1	55.00	ND	46.86	ND	NA	NA	NA	3322.24	
MW-3	09/12/19	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	
MW-3	09/19/19	3369.1	55.00	ND	46.82	ND	NA	NA	NA	3322.28	
MW-3	10/08/19	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	
MW-3	10/16/19	3369.1	55.00	ND	46.93	ND	NA	NA	NA	3322.17	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-3	10/23/19	3369.1	55.00	ND	46.82	ND	NA	NA	NA	3322.28	
MW-3	10/31/19	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	
MW-3	11/05/19	3369.1	55.00	ND	46.88	ND	NA	NA	NA	3322.22	Sampled
MW-3	11/14/19	3369.1	55.00	ND	46.89	ND	NA	NA	NA	3322.21	
MW-3	11/26/19	3369.1	55.00	ND	46.70	ND	NA	NA	NA	3322.40	
MW-3	12/04/19	3369.1	55.00	ND	46.76	ND	NA	NA	NA	3322.34	
MW-3	12/13/19	3369.1	55.00	ND	46.70	ND	NA	NA	NA	3322.40	
MW-3	12/20/19	3369.1	55.00	ND	46.73	ND	NA	NA	NA	3322.37	
MW-3	12/26/19	3369.1	55.00	ND	46.73	ND	NA	NA	NA	3322.37	
MW-4	03/07/18	3365.12	59.48	ND	44.02	ND	NA	NA	NA	3321.10	Sampled
MW-4	06/05/18	3365.12	59.48	ND	43.73	ND	NA	NA	NA	3321.39	Sampled
MW-4	09/06/18	3365.12	59.48	ND	43.78	ND	NA	NA	NA	3321.34	Sampled
MW-4	11/28/18	3365.12	59.48	ND	43.45	ND	NA	NA	NA	3321.67	Sampled
MW-4	02/12/19	3365.12	59.48	ND	43.34	ND	NA	NA	NA	3321.78	Sampled
MW-4	05/09/19	3365.12	59.48	ND	43.31	ND	NA	NA	NA	3321.81	Sampled
MW-4	08/21/19	3365.12	59.48	ND	43.35	ND	NA	NA	NA	3321.77	Sampled
MW-4	11/05/19	3365.12	59.48	ND	43.42	ND	NA	NA	NA	3321.70	Sampled
MW-5	03/07/18	3364.74	53.14	ND	43.65	ND	NA	NA	NA	3321.09	Sampled
MW-5	06/05/18	3364.74	53.14	ND	43.30	ND	NA	NA	NA	3321.44	Sampled
MW-5	09/06/18	3364.74	53.14	ND	43.35	ND	NA	NA	NA	3321.39	Sampled
MW-5	11/28/18	3364.74	53.14	ND	42.98	ND	NA	NA	NA	3321.76	Sampled
MW-5	02/12/19	3364.74	53.14	ND	42.93	ND	NA	NA	NA	3321.81	Sampled
MW-5	05/09/19	3364.74	53.14	ND	42.90	ND	NA	NA	NA	3321.84	Sampled
MW-5	08/21/19	3364.74	53.14	ND	42.88	ND	NA	NA	NA	3321.86	Sampled
MW-5	11/05/19	3364.74	53.14	ND	42.96	ND	NA	NA	NA	3321.78	Sampled
MW-6	03/07/18	3368.96	59.48	ND	47.41	ND	NA	NA	NA	3321.55	Sampled
MW-6	06/05/18	3368.96	59.48	ND	47.08	ND	NA	NA	NA	3321.88	Sampled
MW-6	09/06/18	3368.96	59.48	ND	47.09	ND	NA	NA	NA	3321.87	Sampled
MW-6	11/28/18	3368.96	59.48	ND	46.81	ND	NA	NA	NA	3322.15	Sampled
MW-6	02/12/19	3368.96	59.48	ND	46.73	ND	NA	NA	NA	3322.23	Sampled
MW-6	05/09/19	3368.96	59.48	ND	46.64	ND	NA	NA	NA	3322.32	Sampled
MW-6	08/21/19	3368.96	59.48	ND	46.69	ND	NA	NA	NA	3322.27	Sampled
MW-6	11/05/19	3368.96	59.48	ND	46.72	ND	NA	NA	NA	3322.24	Sampled

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-7	03/07/18	3370.25	58.55	ND	48.44	ND	NA	NA	NA	3321.81	Sampled
MW-7	06/05/18	3370.25	58.55	ND	48.09	ND	NA	NA	NA	3322.16	Sampled
MW-7	09/06/18	3370.25	58.55	ND	48.09	ND	NA	NA	NA	3322.16	Sampled
MW-7	11/28/18	3370.25	58.55	ND	47.81	ND	NA	NA	NA	3322.44	Sampled
MW-7	02/12/19	3370.25	58.55	ND	47.73	ND	NA	NA	NA	3322.52	Sampled
MW-7	05/09/19	3370.25	58.55	ND	47.65	ND	NA	NA	NA	3322.60	Sampled
MW-7	08/21/19	3370.25	58.55	ND	47.63	ND	NA	NA	NA	3322.62	Sampled
MW-7	11/05/19	3370.25	58.55	ND	47.74	ND	NA	NA	NA	3322.51	Sampled
MW-8	01/04/18	3365.11	59.62	ND	44.26	ND	NA	NA	NA	3320.85	
MW-8	01/10/18	3365.11	59.62	ND	44.09	ND	NA	NA	NA	3321.02	
MW-8	01/18/18	3365.11	59.62	ND	44.14	ND	NA	NA	NA	3320.97	
MW-8	01/25/18	3365.11	59.62	ND	44.02	ND	NA	NA	NA	3321.09	
MW-8	02/01/18	3365.11	59.62	ND	44.05	ND	NA	NA	NA	3321.06	
MW-8	02/14/18	3365.11	59.62	ND	43.91	ND	NA	NA	NA	3321.20	
MW-8	02/21/18	3365.11	59.62	ND	44.01	ND	NA	NA	NA	3321.10	
MW-8	02/28/18	3365.11	59.62	ND	44.10	ND	NA	NA	NA	3321.01	
MW-8	03/07/18	3365.11	59.62	ND	43.90	ND	NA	NA	NA	3321.21	Sampled
MW-8	03/15/18	3365.11	59.62	ND	43.76	ND	NA	NA	NA	3321.35	
MW-8	03/22/18	3365.11	59.62	ND	43.88	ND	NA	NA	NA	3321.23	
MW-8	03/28/18	3365.11	59.62	ND	43.88	ND	NA	NA	10.00	3321.23	
MW-8	04/04/18	3365.11	59.62	ND	43.91	ND	NA	NA	10.00	3321.20	
MW-8	04/11/18	3365.11	59.62	ND	43.94	ND	NA	NA	NA	3321.17	
MW-8	04/19/18	3365.11	59.62	ND	43.96	ND	NA	NA	NA	3321.15	
MW-8	04/24/18	3365.11	59.62	ND	43.93	ND	NA	NA	NA	3321.18	
MW-8	05/09/18	3365.11	59.62	ND	43.65	ND	NA	NA	NA	3321.46	
MW-8	05/15/18	3365.11	59.62	ND	43.63	ND	NA	NA	NA	3321.48	
MW-8	05/22/18	3365.11	59.62	ND	43.60	ND	NA	NA	NA	3321.51	
MW-8	05/30/18	3365.11	59.62	ND	43.60	ND	NA	NA	NA	3321.51	
MW-8	06/05/18	3365.11	59.62	ND	43.58	ND	NA	NA	NA	3321.53	Sampled
MW-8	06/13/18	3365.11	59.62	ND	43.60	ND	NA	NA	NA	3321.51	
MW-8	06/19/18	3365.11	59.62	ND	43.62	ND	NA	NA	NA	3321.49	
MW-8	06/29/18	3365.11	59.62	ND	43.60	ND	NA	NA	NA	3321.51	
MW-8	07/05/18	3365.11	59.62	ND	43.65	ND	NA	NA	NA	3321.46	
MW-8	07/11/18	3365.11	59.62	ND	43.68	ND	NA	NA	NA	3321.43	
MW-8	07/18/18	3365.11	59.62	ND	43.58	ND	NA	NA	NA	3321.53	
MW-8	07/26/18	3365.11	59.62	ND	43.62	ND	NA	NA	NA	3321.49	

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-8	07/31/18	3365.11	59.62	ND	43.60	ND	NA	NA	NA	3321.51	
MW-8	08/07/18	3365.11	59.62	ND	43.57	ND	NA	NA	NA	3321.54	
MW-8	08/14/18	3365.11	59.62	ND	43.52	ND	NA	NA	NA	3321.59	
MW-8	08/21/18	3365.11	59.62	ND	43.50	ND	NA	NA	NA	3321.61	
MW-8	08/30/18	3365.11	59.62	ND	43.51	ND	NA	NA	NA	3321.60	
MW-8	09/06/18	3365.11	59.62	ND	43.61	ND	NA	NA	NA	3321.50	Sampled
MW-8	09/26/18	3365.11	59.62	ND	43.55	ND	NA	NA	NA	3321.56	
MW-8	10/03/18	3365.11	59.62	ND	43.54	ND	NA	NA	NA	3321.57	
MW-8	10/11/18	3365.11	59.62	ND	43.51	ND	NA	NA	NA	3321.60	
MW-8	10/17/18	3365.11	59.62	ND	43.11	ND	NA	NA	NA	3322.00	
MW-8	10/24/18	3365.11	59.62	ND	43.45	ND	NA	NA	NA	3321.66	
MW-8	10/31/18	3365.11	59.62	ND	43.42	ND	NA	NA	NA	3321.69	
MW-8	11/06/18	3365.11	59.62	ND	43.48	ND	NA	NA	NA	3321.63	
MW-8	11/13/18	3365.11	59.62	ND	43.51	ND	NA	NA	NA	3321.60	
MW-8	11/21/18	3365.11	59.62	ND	43.40	ND	NA	NA	NA	3321.71	
MW-8	11/28/18	3365.11	59.62	ND	43.28	ND	NA	NA	NA	3321.83	Sampled
MW-8	12/07/18	3365.11	59.62	ND	43.30	ND	NA	NA	NA	3321.81	
MW-8	12/12/18	3365.11	59.62	ND	43.34	ND	NA	NA	NA	3321.77	
MW-8	12/18/18	3365.11	59.62	ND	43.35	ND	NA	NA	NA	3321.76	
MW-8	01/03/19	3365.11	59.62	ND	43.42	ND	NA	NA	NA	3321.69	
MW-8	01/08/19	3365.11	59.62	ND	43.45	ND	NA	NA	NA	3321.66	
MW-8	01/17/19	3365.11	59.62	ND	43.21	ND	NA	NA	NA	3321.90	
MW-8	01/22/19	3365.11	59.62	ND	43.30	ND	NA	NA	NA	3321.81	
MW-8	01/29/19	3365.11	59.62	ND	43.26	ND	NA	NA	NA	3321.85	
MW-8	02/05/19	3365.11	59.62	ND	43.31	ND	NA	NA	NA	3321.80	
MW-8	02/12/19	3365.11	59.62	ND	43.23	ND	NA	NA	NA	3321.88	Sampled
MW-8	02/22/19	3365.11	59.62	ND	43.19	ND	NA	NA	NA	3321.92	
MW-8	02/27/19	3365.11	59.62	ND	43.33	ND	NA	NA	NA	3321.78	
MW-8	03/06/19	3365.11	59.62	ND	43.38	ND	NA	NA	NA	3321.73	
MW-8	03/12/19	3365.11	59.62	ND	43.40	ND	NA	NA	NA	3321.71	
MW-8	03/22/19	3365.11	59.62	ND	43.41	ND	NA	NA	NA	3321.70	
MW-8	03/28/19	3365.11	59.62	ND	43.29	ND	NA	NA	NA	3321.82	
MW-8	04/02/19	3365.11	59.62	ND	42.90	ND	NA	NA	NA	3322.21	
MW-8	04/10/19	3365.11	59.62	ND	42.96	ND	NA	NA	NA	3322.15	
MW-8	04/16/19	3365.11	59.62	ND	42.98	ND	NA	NA	NA	3322.13	
MW-8	04/24/19	3365.11	59.62	ND	42.98	ND	NA	NA	NA	3322.13	
MW-8	05/01/19	3365.11	59.62	ND	42.89	ND	NA	NA	NA	3322.22	Sampled

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
MW-8	05/09/19	3365.11	59.62	ND	43.18	ND	NA	NA	NA	3321.93	
MW-8	05/17/19	3365.11	59.62	ND	43.20	ND	NA	NA	NA	3321.91	
MW-8	05/24/19	3365.11	59.62	ND	43.19	ND	NA	NA	NA	3321.92	
MW-8	06/05/19	3365.11	59.62	ND	43.23	ND	NA	NA	NA	3321.88	
MW-8	06/14/19	3365.11	59.62	ND	43.09	ND	NA	NA	NA	3322.02	
MW-8	06/20/19	3365.11	59.62	ND	43.26	ND	NA	NA	NA	3321.85	
MW-8	06/25/19	3365.11	59.62	ND	43.10	ND	NA	NA	NA	3322.01	
MW-8	07/02/19	3365.11	59.62	ND	43.12	ND	NA	NA	NA	3321.99	
MW-8	07/10/19	3365.11	59.62	ND	43.13	ND	NA	NA	NA	3321.98	
MW-8	07/26/19	3365.11	59.62	ND	43.15	ND	NA	NA	NA	3321.96	Sampled
MW-8	08/11/19	3365.11	59.62	ND	43.22	ND	NA	NA	NA	3321.89	
MW-8	08/14/19	3365.11	59.62	ND	43.24	ND	NA	NA	NA	3321.87	
MW-8	08/21/19	3365.11	59.62	ND	43.18	ND	NA	NA	NA	3321.93	
MW-8	09/06/19	3365.11	59.62	ND	43.20	ND	NA	NA	NA	3321.91	
MW-8	09/12/19	3365.11	59.62	ND	43.25	ND	NA	NA	NA	3321.86	
MW-8	09/19/19	3365.11	59.62	ND	43.24	ND	NA	NA	NA	3321.87	
MW-8	10/08/19	3365.11	59.62	ND	43.24	ND	NA	NA	NA	3321.87	
MW-8	10/16/19	3365.11	59.62	ND	43.28	ND	NA	NA	NA	3321.83	
MW-8	10/23/19	3365.11	59.62	ND	43.20	ND	NA	NA	NA	3321.91	
MW-8	10/31/19	3365.11	59.62	ND	43.23	ND	NA	NA	NA	3321.88	
MW-8	11/05/19	3365.11	59.62	ND	43.25	ND	NA	NA	NA	3321.86	Sampled
MW-8	11/14/19	3365.11	59.62	ND	43.28	ND	NA	NA	NA	3321.83	
MW-8	11/26/19	3365.11	59.62	ND	43.06	ND	NA	NA	NA	3322.05	
MW-8	12/04/19	3365.11	59.62	ND	43.12	ND	NA	NA	NA	3321.99	
MW-8	12/13/19	3365.11	59.62	ND	43.09	ND	NA	NA	NA	3322.02	
MW-8	12/20/19	3365.11	59.62	ND	43.13	ND	NA	NA	NA	3321.98	
MW-8	12/26/19	3365.11	59.62	ND	43.10	ND	NA	NA	NA	3322.01	
MW-9	03/07/18	3364.69	62.60	ND	43.27	ND	NA	NA	NA	3321.42	Sampled
MW-9	06/05/18	3364.69	62.60	ND	42.95	ND	NA	NA	NA	3321.74	Sampled
MW-9	09/06/18	3364.69	62.60	ND	42.98	ND	NA	NA	NA	3321.71	Sampled
MW-9	11/28/18	3364.69	62.60	ND	42.64	ND	NA	NA	NA	3322.05	Sampled
MW-9	02/12/19	3364.69	62.60	ND	42.60	ND	NA	NA	NA	3322.09	Sampled
MW-9	05/09/19	3364.69	62.60	ND	42.56	ND	NA	NA	NA	3322.13	Sampled
MW-9	08/21/19	3364.69	62.60	ND	42.56	ND	NA	NA	NA	3322.13	Sampled
MW-9	11/05/19	3364.69	62.60	ND	42.63	ND	NA	NA	NA	3322.06	Sampled

TABLE 2
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Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-1	01/04/18	3368.12	58.70	Sheen	47.12	Sheen	NA	Sheen	10.00	3321.00	
RW-1	01/10/18	3368.12	58.70	NA	46.92	NA	NA	NA	NA	3321.20	
RW-1	01/18/18	3368.12	58.70	NA	47.35	NA	NA	NA	NA	3320.77	
RW-1	01/25/18	3368.12	58.70	Sheen	46.89	Sheen	NA	NA	NA	3321.23	
RW-1	02/01/18	3368.12	58.70	NA	46.86	NA	NA	NA	NA	3321.26	
RW-1	02/14/18	3368.12	58.70	NA	46.73	NA	NA	NA	NA	3321.39	
RW-1	02/21/18	3368.12	58.70	NA	46.77	NA	NA	NA	NA	3321.35	
RW-1	02/28/18	3368.12	58.70	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.51	
RW-1	03/07/18	3368.12	58.70	46.70	46.74	0.04	NA	NA	NA	3321.41	
RW-1	03/15/18	3368.12	58.70	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.51	
RW-1	03/22/18	3368.12	58.70	Sheen	46.71	Sheen	NA	NA	NA	3321.41	
RW-1	03/28/18	3368.12	58.70	NA	46.63	NA	NA	NA	10.00	3321.49	
RW-1	04/04/18	3368.12	58.70	NA	46.75	NA	NA	NA	10.00	3321.37	
RW-1	04/11/18	3368.12	58.70	NA	46.78	NA	NA	NA	NA	3321.34	
RW-1	04/19/18	3368.12	58.70	NA	46.79	NA	NA	NA	NA	3321.33	
RW-1	04/24/18	3368.12	58.70	NA	46.78	NA	NA	NA	NA	3321.34	
RW-1	05/09/18	3368.12	58.70	Sheen	46.55	Sheen	NA	Sheen	10.00	3321.57	
RW-1	05/15/18	3368.12	58.70	Sheen	46.50	Sheen	NA	NA	10.00	3321.62	
RW-1	05/22/18	3368.12	58.70	Sheen	46.48	Sheen	NA	Sheen	10.00	3321.64	
RW-1	05/30/18	3368.12	58.70	Sheen	46.41	Sheen	NA	Sheen	10.00	3321.71	
RW-1	06/05/18	3368.12	58.70	NA	46.42	NA	NA	Sheen	25.00	3321.70	Sampled
RW-1	06/13/18	3368.12	58.70	NA	46.45	NA	NA	NA	NA	3321.67	
RW-1	06/19/18	3368.12	58.70	NA	46.44	NA	NA	NA	NA	3321.68	
RW-1	06/29/18	3368.12	58.70	Sheen	46.43	Sheen	NA	Sheen	10.00	3321.69	
RW-1	07/05/18	3368.12	58.70	NA	46.44	NA	NA	Sheen	10.00	3321.68	
RW-1	07/11/18	3368.12	58.70	Sheen	46.45	Sheen	NA	Sheen	10.00	3321.67	
RW-1	07/18/18	3368.12	58.70	Sheen	46.44	Sheen	NA	Sheen	10.00	3321.68	
RW-1	07/26/18	3368.12	58.70	Sheen	46.42	Sheen	NA	Sheen	10.00	3321.70	
RW-1	07/31/18	3368.12	58.70	Sheen	46.41	Sheen	NA	Sheen	10.00	3321.71	
RW-1	08/07/18	3368.12	58.70	Sheen	46.40	Sheen	NA	Sheen	10.00	3321.72	
RW-1	08/14/18	3368.12	58.70	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.51	
RW-1	08/21/18	3368.12	58.70	46.35	46.37	0.02	NA	Sheen	10.00	3321.77	
RW-1	08/30/18	3368.12	58.70	46.40	46.41	0.01	NA	Sheen	10.00	3321.72	
RW-1	09/06/18	3368.12	58.70	46.33	46.35	0.02	NA	Sheen	10.00	3321.79	
RW-1	09/26/18	3368.12	58.70	Sheen	46.35	Sheen	NA	Sheen	10.00	3321.77	
RW-1	10/03/18	3368.12	58.70	Sheen	46.34	Sheen	NA	Sheen	10.00	3321.78	
RW-1	10/11/18	3368.12	58.70	ND	46.39	ND	NA	NA	NA	3321.73	

TABLE 2
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Vacuum to Jal 14" Mainline #3
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Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-1	10/17/18	3368.12	58.70	ND	45.94	ND	NA	Sheen	10.00	3322.18	
RW-1	10/24/18	3368.12	58.70	Sheen	46.30	Sheen	NA	Sheen	10.00	3321.82	
RW-1	10/31/18	3368.12	58.70	Sheen	46.21	Sheen	NA	Sheen	10.00	3321.91	
RW-1	11/06/18	3368.12	58.70	Sheen	46.30	Sheen	NA	Sheen	10.00	3321.82	
RW-1	11/13/18	3368.12	58.70	ND	46.33	ND	NA	Sheen	10.00	3321.79	
RW-1	11/21/18	3368.12	58.70	46.20	46.21	0.01	NA	Sheen	10.00	3321.92	
RW-1	11/28/18	3368.12	58.70	46.11	46.13	0.02	NA	Sheen	10.00	3322.01	
RW-1	12/07/18	3368.12	58.70	43.13	43.14	0.01	NA	Sheen	10.00	3324.99	
RW-1	12/12/18	3368.12	58.70	Sheen	46.16	Sheen	NA	Sheen	10.00	3321.96	
RW-1	12/18/18	3368.12	58.70	Sheen	46.18	Sheen	NA	Sheen	10.00	3321.94	
RW-1	01/03/19	3368.12	58.70	Sheen	46.22	Sheen	NA	Sheen	10.00	3321.90	
RW-1	01/08/19	3368.12	58.70	46.77	46.78	0.01	NA	Sheen	10.00	3321.35	
RW-1	01/17/19	3368.12	58.70	46.06	46.07	0.01	NA	ND	10.00	3322.06	
RW-1	01/22/19	3368.12	58.70	Sheen	46.12	Sheen	NA	Sheen	10.00	3322.00	
RW-1	01/29/19	3368.12	58.70	Sheen	46.08	Sheen	NA	Sheen	10.00	3322.04	
RW-1	02/05/19	3368.12	58.70	Sheen	46.21	Sheen	NA	Sheen	10.00	3321.91	
RW-1	02/12/19	3368.12	58.70	46.05	46.07	0.02	NA	NA	NA	3322.07	
RW-1	02/22/19	3368.12	58.70	ND	46.03	ND	NA	NA	10.00	3322.09	
RW-1	02/27/19	3368.12	58.70	ND	46.10	ND	NA	Sheen	10.00	3322.02	
RW-1	03/06/19	3368.12	58.70	ND	46.12	ND	NA	NA	NA	3322.00	
RW-1	03/12/19	3368.12	58.70	Sheen	43.41	Sheen	NA	Sheen	10.00	3324.71	
RW-1	03/22/19	3368.12	58.70	Sheen	43.42	Sheen	NA	Sheen	10.00	3324.70	
RW-1	03/28/19	3368.12	58.70	44.11	44.12	0.01	NA	Sheen	10.00	3324.01	
RW-1	04/02/19	3368.12	58.70	Sheen	45.81	Sheen	NA	Sheen	10.00	3322.31	
RW-1	04/10/19	3368.12	58.70	Sheen	45.77	Sheen	NA	NA	10.00	3322.35	
RW-1	04/16/19	3368.12	58.70	Sheen	45.80	Sheen	NA	NA	NA	3322.32	
RW-1	04/24/19	3368.12	58.70	Sheen	45.82	Sheen	NA	Sheen	10.00	3322.30	
RW-1	05/01/19	3368.12	58.70	Sheen	45.64	Sheen	NA	NA	NA	3322.48	
RW-1	05/09/19	3368.12	58.70	Sheen	46.00	Sheen	NA	Sheen	10.00	3322.12	Sampled
RW-1	05/17/19	3368.12	58.70	Sheen	46.06	Sheen	NA	na	10.00	3322.06	
RW-1	05/24/19	3368.12	58.70	Sheen	46.06	Sheen	NA	NA	10.00	3322.06	
RW-1	06/05/19	3368.12	58.70	Sheen	46.10	Sheen	NA	Sheen	10.00	3322.02	
RW-1	06/14/19	3368.12	58.70	ND	45.85	ND	NA	Sheen	10.00	3322.27	
RW-1	06/20/19	3368.12	58.70	Sheen	46.12	Sheen	NA	Sheen	10.00	3322.00	
RW-1	06/25/19	3368.12	58.70	ND	45.90	ND	NA	ND	10.00	3322.22	
RW-1	07/02/19	3368.12	58.70	Sheen	45.89	Sheen	NA	ND	10.00	3322.23	
RW-1	07/10/19	3368.12	58.70	ND	45.98	ND	NA	ND	10.00	3322.14	

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-1	07/26/19	3368.12	58.70	Sheen	45.86	Sheen	NA	ND	10.00	3322.26	
RW-1	08/11/19	3368.12	58.70	Sheen	45.93	Sheen	NA	Sheen	10.00	3322.19	
RW-1	08/14/19	3368.12	58.70	Sheen	46.06	Sheen	NA	Sheen	10.00	3322.06	
RW-1	08/21/19	3368.12	58.70	Sheen	45.98	Sheen	NA	Sheen	10.00	3322.14	
RW-1	09/06/19	3368.12	58.70	Sheen	46.51	Sheen	NA	Sheen	10.00	3321.61	
RW-1	09/12/19	3368.12	58.70	ND	46.05	ND	NA	Sheen	10.00	3322.07	
RW-1	09/19/19	3368.12	58.70	Sheen	46.05	Sheen	NA	Sheen	10.00	3322.07	
RW-1	10/08/19	3368.12	58.70	ND	46.04	ND	NA	NA	NA	3322.08	
RW-1	10/16/19	3368.12	58.70	ND	46.10	ND	NA	NA	NA	3322.02	
RW-1	10/23/19	3368.12	58.70	ND	46.00	ND	NA	NA	NA	3322.12	
RW-1	10/31/19	3368.12	58.70	ND	46.06	ND	NA	NA	NA	3322.06	
RW-1	11/05/19	3368.12	58.70	46.05	46.06	0.01	NA	Sheen	10.00	3322.07	
RW-1	11/14/19	3368.12	58.70	46.46	46.47	0.01	NA	Sheen	10	3321.66	
RW-1	11/26/19	3368.12	58.70	ND	45.87	ND	NA	NA	NA	3322.25	
RW-1	12/04/19	3368.12	58.70	ND	45.93	ND	NA	NA	NA	3322.19	
RW-1	12/13/19	3368.12	58.70	ND	45.87	ND	NA	NA	NA	3322.25	
RW-1	12/20/19	3368.12	58.70	ND	45.95	ND	NA	NA	NA	3322.17	
RW-1	12/26/19	3368.12	58.70	ND	45.91	ND	NA	NA	NA	3322.21	
RW-2	01/04/18	3368.32	48.98	Sheen	47.38	Sheen	NA	Sheen	10.00	3320.94	
RW-2	01/10/18	3368.32	48.98	Sheen	47.19	Sheen	NA	Sheen	10.00	3321.13	
RW-2	01/18/18	3368.32	48.98	ND	44.72	ND	NA	NA	NA	3323.60	
RW-2	01/25/18	3368.32	48.98	Sheen	47.12	Sheen	NA	NA	NA	3321.20	
RW-2	02/01/18	3368.32	48.98	ND	47.63	ND	NA	NA	NA	3320.69	
RW-2	02/14/18	3368.32	48.98	ND	47.01	ND	NA	NA	NA	3321.31	
RW-2	02/21/18	3368.32	48.98	ND	47.16	ND	NA	NA	NA	3321.16	
RW-2	02/28/18	3368.32	48.98	Sheen	46.85	Sheen	NA	Sheen	10.00	3321.47	
RW-2	03/07/18	3368.32	48.98	ND	46.91	ND	NA	NA	NA	3321.41	Sampled
RW-2	03/15/18	3368.32	48.98	Sheen	46.84	Sheen	NA	Sheen	10.00	3321.48	
RW-2	03/22/18	3368.32	48.98	Sheen	46.96	Sheen	NA	NA	NA	3321.36	
RW-2	03/28/18	3368.32	48.98	Sheen	46.90	Sheen	NA	NA	10.00	3321.42	
RW-2	04/04/18	3368.32	48.98	Sheen	47.02	Sheen	NA	Sheen	10.00	3321.30	
RW-2	04/11/18	3368.32	48.98	Sheen	47.08	Sheen	NA	Sheen	10.00	3321.24	
RW-2	04/19/18	3368.32	48.98	Sheen	47.04	Sheen	NA	Sheen	10.00	3321.28	
RW-2	04/24/18	3368.32	48.98	Sheen	47.10	Sheen	NA	Sheen	10.00	3321.22	
RW-2	05/09/18	3368.32	48.98	ND	46.75	ND	NA	NA	NA	3321.57	
RW-2	05/15/18	3368.32	48.98	Sheen	46.72	Sheen	NA	NA	10.00	3321.60	

TABLE 2
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-2	05/22/18	3368.32	48.98	ND	46.68	ND	NA	NA	NA	3321.64	
RW-2	05/30/18	3368.32	48.98	Sheen	46.68	Sheen	NA	Sheen	10.00	3321.64	
RW-2	06/05/18	3368.32	48.98	Sheen	46.69	Sheen	NA	NA	NA	3321.63	
RW-2	06/13/18	3368.32	48.98	Sheen	46.72	Sheen	NA	Sheen	10.00	3321.60	
RW-2	06/19/18	3368.32	48.98	Sheen	46.74	Sheen	NA	Sheen	10.00	3321.58	
RW-2	06/29/18	3368.32	48.98	Sheen	46.70	Sheen	NA	Sheen	10.00	3321.62	
RW-2	07/05/18	3368.32	48.98	ND	46.89	ND	NA	NA	NA	3321.43	
RW-2	07/11/18	3368.32	48.98	ND	46.74	ND	NA	NA	NA	3321.58	
RW-2	07/18/18	3368.32	48.98	Sheen	46.70	Sheen	NA	Sheen	10.00	3321.62	
RW-2	07/26/18	3368.32	48.98	ND	46.69	ND	NA	NA	NA	3321.63	
RW-2	07/31/18	3368.32	48.98	ND	46.65	ND	NA	NA	NA	3321.67	
RW-2	08/07/18	3368.32	48.98	ND	46.64	ND	NA	NA	NA	3321.68	
RW-2	08/14/18	3368.32	48.98	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.71	
RW-2	08/21/18	3368.32	48.98	ND	46.59	ND	NA	NA	NA	3321.73	
RW-2	08/30/18	3368.32	48.98	ND	46.63	ND	NA	NA	NA	3321.69	
RW-2	09/06/18	3368.32	48.98	46.68	46.69	0.01	NA	NA	NA	3321.64	
RW-2	09/26/18	3368.32	48.98	Sheen	46.61	Sheen	NA	NA	NA	3321.71	
RW-2	10/03/18	3368.32	48.98	Sheen	46.62	Sheen	NA	Sheen	10.00	3321.70	
RW-2	10/11/18	3368.32	48.98	Sheen	46.65	Sheen	NA	Sheen	10.00	3321.67	
RW-2	10/17/18	3368.32	48.98	Sheen	46.02	Sheen	NA	Sheen	10.00	3322.30	
RW-2	10/24/18	3368.32	48.98	Sheen	46.55	Sheen	NA	Sheen	10.00	3321.77	
RW-2	10/31/18	3368.32	48.98	ND	46.55	ND	NA	NA	NA	3321.77	
RW-2	11/06/18	3368.32	48.98	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.71	
RW-2	11/13/18	3368.32	48.98	ND	46.64	ND	NA	NA	NA	3321.68	
RW-2	11/21/18	3368.32	48.98	Sheen	46.44	Sheen	NA	NA	NA	3321.88	
RW-2	11/28/18	3368.32	48.98	46.32	46.33	0.01	NA	Sheen	10.00	3322.00	
RW-2	12/07/18	3368.32	48.98	46.35	46.37	0.02	NA	Sheen	10.00	3321.97	
RW-2	12/12/18	3368.32	48.98	ND	46.39	ND	NA	NA	NA	3321.93	
RW-2	12/18/18	3368.32	48.98	ND	46.40	ND	NA	NA	NA	3321.92	
RW-2	01/03/19	3368.32	48.98	ND	46.94	ND	NA	NA	NA	3321.38	
RW-2	01/08/19	3368.32	48.98	ND	46.48	ND	NA	NA	10.00	3321.84	
RW-2	01/17/19	3368.32	48.98	ND	46.34	ND	NA	NA	NA	3321.98	
RW-2	01/22/19	3368.32	48.98	Sheen	46.40	Sheen	NA	Sheen	10.00	3321.92	
RW-2	01/29/19	3368.32	48.98	ND	46.32	ND	NA	NA	NA	3322.00	
RW-2	02/05/19	3368.32	48.98	ND	46.36	ND	NA	Sheen	10.00	3321.96	
RW-2	02/12/19	3368.32	48.98	46.30	46.32	0.02	NA	Sheen	10.00	3322.02	
RW-2	02/22/19	3368.32	48.98	ND	46.28	ND	NA	Sheen	10.00	3322.04	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-2	02/27/19	3368.32	48.98	ND	46.20	ND	NA	NA	NA	3322.12	
RW-2	03/06/19	3368.32	48.98	ND	46.18	ND	NA	NA	NA	3322.14	
RW-2	03/12/19	3368.32	48.98	Sheen	46.19	Sheen	NA	Sheen	10.00	3322.13	
RW-2	03/22/19	3368.32	48.98	Sheen	46.22	Sheen	NA	Sheen	10.00	3322.10	
RW-2	03/28/19	3368.32	48.98	Sheen	46.16	Sheen	NA	Sheen	10.00	3322.16	
RW-2	04/02/19	3368.32	48.98	ND	46.16	ND	NA	NA	NA	3322.16	
RW-2	04/10/19	3368.32	48.98	ND	46.06	ND	NA	NA	NA	3322.26	
RW-2	04/16/19	3368.32	48.98	ND	46.09	ND	NA	NA	NA	3322.23	
RW-2	04/24/19	3368.32	48.98	ND	46.11	ND	NA	NA	NA	3322.21	
RW-2	05/01/19	3368.32	48.98	ND	46.01	ND	NA	NA	NA	3322.31	
RW-2	05/09/19	3368.32	48.98	Sheen	46.25	Sheen	NA	NA	NA	3322.07	Sampled
RW-2	05/17/19	3368.32	48.98	Sheen	46.28	Sheen	NA	NA	10.00	3322.04	
RW-2	05/24/19	3368.32	48.98	Sheen	46.27	Sheen	NA	NA	10.00	3322.05	
RW-2	06/05/19	3368.32	48.98	ND	46.28	ND	NA	NA	NA	3322.04	
RW-2	06/14/19	3368.32	48.98	ND	46.15	ND	NA	NA	NA	3322.17	
RW-2	06/20/19	3368.32	48.98	Sheen	46.29	Sheen	NA	NA	10.00	3322.03	
RW-2	06/25/19	3368.32	48.98	ND	46.20	ND	NA	NA	10.00	3322.12	
RW-2	07/02/19	3368.32	48.98	ND	46.18	ND	NA	NA	10.00	3322.14	
RW-2	07/10/19	3368.32	48.98	ND	46.78	ND	NA	NA	10.00	3321.54	
RW-2	07/26/19	3368.32	48.98	ND	46.13	ND	NA	NA	10.00	3322.19	
RW-2	08/11/19	3368.32	48.98	ND	46.25	ND	NA	NA	10.00	3322.07	
RW-2	08/14/19	3368.32	48.98	ND	46.32	ND	NA	NA	NA	3322.00	
RW-2	08/21/19	3368.32	48.98	Sheen	46.25	Sheen	NA	NA	NA	3322.07	
RW-2	09/06/19	3368.32	48.98	ND	46.34	ND	NA	NA	NA	3321.98	
RW-2	09/12/19	3368.32	48.98	ND	46.32	ND	NA	NA	NA	3322.00	
RW-2	09/19/19	3368.32	58.70	ND	46.29	ND	NA	NA	NA	3322.03	
RW-2	10/08/19	3368.32	58.70	ND	46.31	ND	NA	NA	NA	3322.01	
RW-2	10/16/19	3368.32	58.70	ND	46.35	ND	NA	NA	NA	3321.97	
RW-2	10/23/19	3368.32	58.70	ND	46.25	ND	NA	NA	NA	3322.07	
RW-2	10/31/19	3368.32	58.70	ND	46.34	ND	NA	NA	NA	3321.98	
RW-2	11/05/19	3368.32	48.98	Sheen	46.32	Sheen	NA	Sheen	10.00	3322.00	
RW-2	11/14/19	3368.32	58.70	46.46	46.53	0.07	NA	NA	NA	3321.85	
RW-2	11/26/19	3368.32	58.70	ND	46.15	ND	NA	NA	NA	3322.17	
RW-2	12/04/19	3368.32	58.70	ND	46.20	ND	NA	NA	NA	3322.12	
RW-2	12/13/19	3368.32	58.70	ND	46.14	ND	NA	NA	NA	3322.18	
RW-2	12/20/19	3368.32	58.70	ND	46.21	ND	NA	NA	NA	3322.11	
RW-2	12/26/19	3368.32	58.70	ND	46.22	ND	NA	NA	NA	3322.10	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-3	01/04/18	3369.05	59.57	Sheen	47.85	Sheen	NA	NA	NA	3321.20	
RW-3	01/10/18	3369.05	59.57	Sheen	47.40	Sheen	NA	NA	NA	3321.65	
RW-3	01/18/18	3369.05	59.57	Sheen	47.73	Sheen	NA	NA	NA	3321.32	
RW-3	01/25/18	3369.05	59.57	Sheen	47.63	Sheen	NA	NA	NA	3321.42	
RW-3	02/01/18	3369.05	59.57	ND	47.15	ND	NA	NA	NA	3321.90	
RW-3	02/14/18	3369.05	59.57	ND	47.51	ND	NA	NA	NA	3321.54	
RW-3	02/21/18	3369.05	59.57	ND	47.60	ND	NA	NA	NA	3321.45	
RW-3	02/28/18	3369.05	59.57	ND	47.30	ND	NA	NA	NA	3321.75	
RW-3	03/07/18	3369.05	59.57	47.10	47.12	0.02	NA	NA	NA	3321.95	
RW-3	03/15/18	3369.05	59.57	Sheen	47.37	Sheen	NA	NA	NA	3321.68	
RW-3	03/22/18	3369.05	59.57	Sheen	47.50	Sheen	NA	NA	NA	3321.55	
RW-3	03/28/18	3369.05	59.57	Sheen	47.39	Sheen	NA	NA	NA	3321.66	
RW-3	04/04/18	3369.05	59.57	Sheen	47.49	Sheen	NA	NA	NA	3321.56	
RW-3	04/11/18	3369.05	59.57	Sheen	47.49	Sheen	NA	NA	NA	3321.56	
RW-3	04/19/18	3369.05	59.57	Sheen	47.44	Sheen	NA	NA	NA	3321.61	
RW-3	04/24/18	3369.05	59.57	Sheen	47.50	Sheen	NA	NA	NA	3321.55	
RW-3	05/09/18	3369.05	59.57	Sheen	47.32	Sheen	NA	NA	NA	3321.73	
RW-3	05/15/18	3369.05	59.57	Sheen	47.25	Sheen	NA	NA	NA	3321.80	
RW-3	05/22/18	3369.05	59.57	Sheen	47.22	Sheen	NA	NA	NA	3321.83	
RW-3	05/30/18	3369.05	59.57	Sheen	47.17	Sheen	NA	NA	NA	3321.88	
RW-3	06/05/18	3369.05	59.57	Sheen	47.17	Sheen	NA	Sheen	25.00	3321.88	Sampled
RW-3	06/13/18	3369.05	59.57	Sheen	47.20	Sheen	NA	NA	NA	3321.85	
RW-3	06/19/18	3369.05	59.57	Sheen	47.18	Sheen	NA	NA	NA	3321.87	
RW-3	06/29/18	3369.05	59.57	Sheen	47.20	Sheen	NA	NA	NA	3321.85	
RW-3	07/05/18	3369.05	59.57	ND	47.22	ND	NA	NA	NA	3321.83	
RW-3	07/11/18	3369.05	59.57	Sheen	47.20	Sheen	NA	NA	NA	3321.85	
RW-3	07/18/18	3369.05	59.57	Sheen	47.13	Sheen	NA	NA	NA	3321.92	
RW-3	07/26/18	3369.05	59.57	Sheen	47.18	Sheen	NA	NA	NA	3321.87	
RW-3	07/31/18	3369.05	59.57	47.19	47.20	0.01	NA	NA	NA	3321.86	
RW-3	08/07/18	3369.05	59.57	47.16	47.17	0.01	NA	NA	NA	3321.89	
RW-3	08/14/18	3369.05	59.57	47.15	47.16	0.01	NA	Sheen	10.00	3321.90	
RW-3	08/21/18	3369.05	59.57	Sheen	47.16	Sheen	NA	NA	NA	3321.89	
RW-3	08/30/18	3369.05	59.57	Sheen	47.21	Sheen	NA	NA	NA	3321.84	
RW-3	09/06/18	3369.05	59.57	Sheen	47.18	Sheen	NA	NA	NA	3321.87	
RW-3	09/26/18	3369.05	59.57	47.16	47.18	0.02	NA	Sheen	10.00	3321.89	
RW-3	10/03/18	3369.05	59.57	47.18	47.19	0.01	NA	Sheen	10.00	3321.87	

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								PSH	H_2O		
RW-3	10/11/18	3369.05	59.57	47.19	47.20	0.01	NA	NA	NA	3321.86	
RW-3	10/17/18	3369.05	59.57	46.77	46.79	0.02	NA	NA	NA	3322.28	
RW-3	10/24/18	3369.05	59.57	Sheen	46.81	Sheen	NA	NA	NA	3322.24	
RW-3	10/31/18	3369.05	59.57	Sheen	47.06	Sheen	NA	NA	NA	3321.99	
RW-3	11/06/18	3369.05	59.57	47.10	47.11	0.01	NA	NA	NA	3321.95	
RW-3	11/13/18	3369.05	59.57	47.13	47.14	0.01	NA	Sheen	10.00	3321.92	
RW-3	11/21/18	3369.05	59.57	47.04	47.05	0.01	NA	Sheen	10.00	3322.01	
RW-3	11/28/18	3369.05	59.57	46.85	46.86	0.01	NA	Sheen	10.00	3322.20	
RW-3	12/07/18	3369.05	59.57	46.87	46.90	0.03	NA	Sheen	10.00	3322.18	
RW-3	12/12/18	3369.05	59.57	46.88	46.89	0.01	NA	Sheen	10.00	3322.17	
RW-3	12/18/18	3369.05	59.57	Sheen	46.90	Sheen	NA	NA	NA	3322.15	
RW-3	01/03/19	3369.05	59.57	46.91	46.92	0.01	NA	Sheen	10.00	3322.14	
RW-3	01/08/19	3369.05	59.57	46.93	46.94	0.01	NA	NA	NA	3322.12	
RW-3	01/17/19	3369.05	59.57	ND	46.83	ND	NA	NA	NA	3322.22	
RW-3	01/22/19	3369.05	59.57	ND	46.90	ND	NA	NA	NA	3322.15	
RW-3	01/29/19	3369.05	59.57	Sheen	46.84	Sheen	NA	NA	NA	3322.21	
RW-3	02/05/19	3369.05	59.57	46.90	46.91	0.01	NA	NA	NA	3322.15	
RW-3	02/12/19	3369.05	59.57	46.79	46.80	0.01	NA	NA	NA	3322.26	
RW-3	02/22/19	3369.05	59.57	ND	46.82	ND	NA	NA	NA	3322.23	
RW-3	02/27/19	3369.05	59.57	46.88	46.89	0.01	NA	NA	NA	3322.17	
RW-3	03/06/19	3369.05	59.57	46.90	46.91	0.01	NA	NA	NA	3322.15	
RW-3	03/12/19	3369.05	59.57	46.91	46.92	0.01	NA	NA	NA	3322.14	
RW-3	03/22/19	3369.05	59.57	46.90	46.91	0.01	NA	NA	NA	3322.15	
RW-3	03/28/19	3369.05	59.57	46.68	46.69	0.01	NA	NA	NA	3322.37	
RW-3	04/02/19	3369.05	59.57	Sheen	46.55	Sheen	NA	NA	NA	3322.50	
RW-3	04/10/19	3369.05	59.57	Sheen	46.53	Sheen	NA	NA	NA	3322.52	
RW-3	04/16/19	3369.05	59.57	Sheen	46.58	Sheen	NA	NA	NA	3322.47	
RW-3	04/24/19	3369.05	59.57	Sheen	26.61	Sheen	NA	Sheen	10.00	3342.44	
RW-3	05/01/19	3369.05	59.57	Sheen	46.56	Sheen	NA	NA	NA	3322.49	
RW-3	05/09/19	3369.05	59.57	Sheen	46.74	Sheen	NA	Sheen	10.00	3322.31	Sampled
RW-3	05/17/19	3369.05	59.57	Sheen	46.78	Sheen	NA	NA	NA	3322.27	
RW-3	05/24/19	3369.05	59.57	Sheen	46.80	Sheen	NA	NA	NA	3322.25	
RW-3	06/05/19	3369.05	59.57	Sheen	46.82	Sheen	NA	NA	NA	3322.23	PUMP
RW-3	06/14/19	3369.05	59.57	ND	46.61	ND	NA	NA	NA	3322.44	PUMP
RW-3	06/20/19	3369.05	59.57	Sheen	46.85	Sheen	NA	NA	NA	3322.20	PUMP
RW-3	06/25/19	3369.05	59.57	ND	46.62	ND	NA	NA	NA	3322.43	PUMP
RW-3	07/02/19	3369.05	59.57	ND	46.64	ND	NA	NA	NA	3322.41	PUMP

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-3	07/10/19	3369.05	59.57	ND	46.60	ND	NA	NA	NA	3322.45	PUMP
RW-3	07/26/19	3369.05	59.57	46.61	46.62	0.01	NA	NA	NA	3322.44	PUMP
RW-3	08/11/19	3369.05	59.57	46.77	46.79	0.02	NA	NA	NA	3322.28	PUMP
RW-3	08/14/19	3369.05	59.57	Sheen	46.83	Sheen	NA	NA	NA	3322.22	PUMP
RW-3	08/21/19	3369.05	59.57	46.77	46.78	0.01	NA	NA	NA	3322.28	PUMP
RW-3	09/06/19	3369.05	59.57	Sheen	46.90	Sheen	NA	NA	NA	3322.15	PUMP
RW-3	09/12/19	3369.05	59.57	46.88	46.89	0.01	NA	NA	NA	3322.17	PUMP
RW-3	09/19/19	3369.05	59.57	Sheen	46.85	Sheen	NA	NA	NA	3322.20	PUMP
RW-3	10/08/19	3369.05	59.57	Sheen	46.78	Sheen	NA	NA	NA	3322.27	PUMP
RW-3	10/16/19	3369.05	59.57	Sheen	46.81	Sheen	NA	NA	NA	3322.24	PUMP
RW-3	10/23/19	3369.05	59.57	46.70	46.72	0.02	NA	NA	NA	3322.35	PUMP
RW-3	10/31/19	3369.05	59.57	46.81	46.82	0.01	NA	NA	NA	3322.24	PUMP
RW-3	11/05/19	3369.05	59.57	46.76	46.77	0.01	NA	Sheen	10.00	3322.29	
RW-3	11/14/19	3369.05	59.57	46.81	46.82	0.01	NA	NA	NA	3322.24	PUMP
RW-3	11/26/19	3369.05	59.57	46.80	46.83	0.03	NA	NA	NA	3322.25	PUMP
RW-3	12/04/19	3369.05	59.57	46.84	46.85	0.01	NA	NA	NA	3322.21	PUMP
RW-3	12/13/19	3369.05	59.57	46.61	46.65	0.04	NA	NA	NA	3322.43	PUMP
RW-3	12/20/19	3369.05	59.57	46.68	46.72	0.04	NA	NA	NA	3322.36	PUMP
RW-3	12/26/19	3369.05	59.57	46.65	46.71	0.06	NA	NA	NA	3322.39	PUMP
RW-4	01/04/18	3367.11	57.63	Sheen	46.53	Sheen	NA	Sheen	10.00	3320.58	
RW-4	01/10/18	3367.11	57.63	ND	46.36	ND	NA	NA	NA	3320.75	
RW-4	01/18/18	3367.11	57.63	Sheen	46.39	Sheen	NA	NA	NA	3320.72	
RW-4	01/25/18	3367.11	57.63	Sheen	46.28	Sheen	NA	NA	NA	3320.83	
RW-4	02/01/18	3367.11	57.63	Sheen	46.30	Sheen	NA	NA	NA	3320.81	
RW-4	02/14/18	3367.11	57.63	Sheen	46.15	Sheen	NA	NA	NA	3320.96	
RW-4	02/21/18	3367.11	57.63	Sheen	46.20	Sheen	NA	Sheen	10.00	3320.91	
RW-4	02/28/18	3367.11	57.63	Sheen	46.05	Sheen	NA	Sheen	10.00	3321.06	
RW-4	03/07/18	3367.11	57.63	ND	46.10	ND	NA	NA	NA	3321.01	Sampled
RW-4	03/15/18	3367.11	57.63	Sheen	46.02	Sheen	NA	NA	10.00	3321.09	
RW-4	03/22/18	3367.11	57.63	Sheen	46.14	Sheen	NA	NA	NA	3320.97	
RW-4	03/28/18	3367.11	57.63	ND	46.06	ND	NA	NA	10.00	3321.05	
RW-4	04/04/18	3367.11	57.63	ND	46.19	ND	NA	NA	10.00	3320.92	
RW-4	04/11/18	3367.11	57.63	ND	46.10	ND	NA	NA	NA	3321.01	
RW-4	04/19/18	3367.11	57.63	ND	46.15	ND	NA	NA	NA	3320.96	
RW-4	04/24/18	3367.11	57.63	ND	46.18	ND	NA	NA	NA	3320.93	
RW-4	05/09/18	3367.11	57.63	ND	46.02	ND	NA	NA	NA	3321.09	

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								PSH	H_2O		
RW-4	05/15/18	3367.11	57.63	Sheen	45.90	Sheen	NA	NA	10.00	3321.21	
RW-4	05/22/18	3367.11	57.63	ND	45.86	ND	NA	NA	NA	3321.25	
RW-4	05/30/18	3367.11	57.63	ND	45.84	ND	NA	NA	NA	3321.27	
RW-4	06/05/18	3367.11	57.63	Sheen	45.87	Sheen	NA	Sheen	24.00	3321.24	Sampled
RW-4	06/13/18	3367.11	57.63	nd	45.91	nd	NA	NA	NA	3321.20	
RW-4	06/19/18	3367.11	57.63	nd	45.90	nd	NA	NA	NA	3321.21	
RW-4	06/29/18	3367.11	57.63	Sheen	45.87	Sheen	NA	NA	10.00	3321.24	
RW-4	07/05/18	3367.11	57.63	nd	45.92	nd	NA	NA	NA	3321.19	
RW-4	07/11/18	3367.11	57.63	nd	45.88	nd	NA	NA	NA	3321.23	
RW-4	07/18/18	3367.11	57.63	nd	45.85	nd	NA	NA	NA	3321.26	
RW-4	07/26/18	3367.11	57.63	nd	45.85	nd	NA	NA	NA	3321.26	
RW-4	07/31/18	3367.11	57.63	nd	45.82	nd	NA	NA	NA	3321.29	
RW-4	08/07/18	3367.11	57.63	nd	45.82	nd	NA	NA	NA	3321.29	
RW-4	08/14/18	3367.11	57.63	Sheen	45.80	Sheen	NA	Sheen	10.00	3321.31	
RW-4	08/21/18	3367.11	57.63	nd	45.80	nd	NA	NA	NA	3321.31	
RW-4	08/30/18	3367.11	57.63	Sheen	45.84	Sheen	NA	NA	NA	3321.27	
RW-4	09/06/18	3367.11	57.63	45.85	45.86	0.01	NA	NA	NA	3321.26	
RW-4	09/26/18	3367.11	57.63	Sheen	45.84	Sheen	NA	NA	NA	3321.27	
RW-4	10/03/18	3367.11	57.63	Sheen	45.85	Sheen	NA	Sheen	10.00	3321.26	
RW-4	10/11/18	3367.11	57.63	nd	45.86	nd	NA	NA	NA	3321.25	
RW-4	10/17/18	3367.11	57.63	Sheen	45.32	Sheen	NA	Sheen	10.00	3321.79	
RW-4	10/24/18	3367.11	57.63	Sheen	45.71	Sheen	NA	Sheen	10.00	3321.40	
RW-4	10/31/18	3367.11	57.63	nd	45.68	nd	NA	NA	NA	3321.43	
RW-4	11/06/18	3367.11	57.63	nd	45.75	nd	NA	NA	NA	3321.36	
RW-4	11/13/18	3367.11	57.63	Sheen	45.78	Sheen	NA	Sheen	10.00	3321.33	
RW-4	11/21/18	3367.11	57.63	Sheen	45.63	Sheen	NA	NA	NA	3321.48	
RW-4	11/28/18	3367.11	57.63	nd	45.51	nd	NA	NA	NA	3321.60	
RW-4	12/07/18	3367.11	57.63	Sheen	45.50	Sheen	NA	NA	NA	3321.61	
RW-4	12/12/18	3367.11	57.63	nd	45.52	nd	NA	NA	NA	3321.59	
RW-4	12/18/18	3367.11	57.63	ND	45.50	ND	NA	NA	NA	3321.61	
RW-4	01/03/19	3367.11	57.63	ND	45.53	ND	NA	NA	NA	3321.58	
RW-4	01/08/19	3367.11	57.63	45.60	45.61	0.01	NA	Sheen	10.00	3321.51	
RW-4	01/17/19	3367.11	57.63	nd	45.49	nd	NA	NA	10.00	3321.62	
RW-4	01/22/19	3367.11	57.63	nd	45.58	nd	NA	NA	10.00	3321.53	
RW-4	01/29/19	3367.11	57.63	Sheen	45.51	Sheen	NA	Sheen	10.00	3321.60	
RW-4	02/05/19	3367.11	57.63	nd	45.56	nd	NA	NA	NA	3321.55	
RW-4	02/12/19	3367.11	57.63	45.45	45.47	0.02	NA	NA	NA	3321.66	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-4	02/22/19	3367.11	57.63	nd	45.48	nd	NA	NA	NA	3321.63	
RW-4	02/27/19	3367.11	57.63	nd	45.50	nd	NA	NA	NA	3321.61	
RW-4	03/05/19	3367.11	57.63	Sheen	45.56	Sheen	NA	NA	10.00	3321.55	
RW-4	03/12/19	3367.11	57.63	Sheen	45.58	Sheen	NA	NA	NA	3321.53	
RW-4	03/22/19	3367.11	57.63	46.60	46.61	0.01	NA	Sheen	10.00	3320.51	
RW-4	03/28/19	3367.11	57.63	45.38	45.39	0.01	NA	Sheen	10.00	3321.73	
RW-4	04/02/19	3367.11	57.63	Sheen	45.30	Sheen	NA	NA	NA	3321.81	
RW-4	04/10/19	3367.11	57.63	Sheen	45.22	Sheen	NA	NA	NA	3321.89	
RW-4	04/16/19	3367.11	57.63	Sheen	45.25	Sheen	NA	NA	NA	3321.86	
RW-4	04/24/19	3367.11	57.63	nd	45.27	nd	NA	NA	NA	3321.84	
RW-4	05/01/19	3367.11	57.63	Sheen	45.12	Sheen	NA	NA	NA	3321.99	
RW-4	05/09/19	3367.11	57.63	nd	45.46	nd	NA	NA	NA	3321.65	
RW-4	05/17/19	3367.11	57.63	nd	45.50	nd	NA	NA	NA	3321.61	
RW-4	05/24/19	3367.11	57.63	nd	45.49	nd	NA	NA	NA	3321.62	
RW-4	06/05/19	3367.11	57.63	nd	45.49	nd	NA	NA	NA	3321.62	
RW-4	06/14/19	3367.11	57.63	nd	45.30	nd	NA	NA	NA	3321.81	
RW-4	06/20/19	3367.11	57.63	Sheen	45.50	Sheen	NA	NA	10.00	3321.61	
RW-4	06/25/19	3367.11	57.63	nd	45.34	nd	NA	NA	NA	3321.77	
RW-4	07/02/19	3367.11	57.63	Sheen	45.35	Sheen	NA	NA	10.00	3321.76	
RW-4	07/10/19	3367.11	57.63	nd	45.40	nd	NA	NA	10.00	3321.71	
RW-4	07/26/19	3367.11	57.63	nd	45.30	nd	NA	NA	NA	3321.81	
RW-4	08/11/19	3367.11	57.63	Sheen	45.46	Sheen	NA	Sheen	10.00	3321.65	
RW-4	08/14/19	3367.11	57.63	Sheen	45.52	Sheen	NA	Sheen	10.00	3321.59	
RW-4	08/21/19	3367.11	57.63	Sheen	45.40	Sheen	NA	NA	NA	3321.71	
RW-4	09/06/19	3367.11	57.63	nd	45.48	nd	NA	NA	NA	3321.63	
RW-4	09/12/19	3367.11	57.63	nd	45.51	nd	NA	NA	NA	3321.60	
RW-4	09/19/19	3367.11	57.63	nd	43.48	nd	NA	NA	NA	3323.63	
RW-4	10/08/19	3367.11	57.63	Sheen	45.48	Sheen	NA	NA	NA	3321.63	
RW-4	10/16/19	3367.11	57.63	nd	45.53	nd	NA	NA	NA	3321.58	
RW-4	10/23/19	3367.11	57.63	nd	45.42	nd	NA	NA	NA	3321.69	
RW-4	10/31/19	3367.11	57.63	nd	45.49	nd	NA	NA	NA	3321.62	
RW-4	11/05/19	3367.11	57.63	nd	45.50	nd	NA	NA	NA	3321.61	
RW-4	11/14/19	3367.11	57.63	45.50	45.52	0.02	NA	Sheen	10	3321.61	
RW-4	11/26/19	3367.11	57.63	nd	45.31	nd	NA	NA	NA	3321.80	
RW-4	12/04/19	3367.11	57.63	45.36	45.37	0.01	NA	Sheen	10	3321.75	
RW-4	12/13/19	3367.11	57.63	nd	45.31	nd	NA	NA	NA	3321.80	
RW-4	12/20/19	3367.11	57.63	nd	45.39	nd	NA	NA	NA	3321.72	

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								PSH	H_2O		
RW-4	12/26/19	3367.11	57.63	nd	45.35	nd	NA	NA	NA	3321.76	
RW-5	01/04/18	3368.34	59.73	Sheen	47.35	Sheen	NA	Sheen	10.00	3320.99	
RW-5	01/10/18	3368.34	59.73	nd	47.20	nd	NA	NA	NA	3321.14	
RW-5	01/18/18	3368.34	59.73	Sheen	48.19	Sheen	NA	NA	NA	3320.15	
RW-5	01/25/18	3368.34	59.73	Sheen	47.10	Sheen	NA	NA	NA	3321.24	
RW-5	02/01/18	3368.34	59.73	nd	47.10	nd	NA	NA	NA	3321.24	
RW-5	02/14/18	3368.34	59.73	Sheen	46.96	Sheen	NA	NA	NA	3321.38	
RW-5	02/21/18	3368.34	59.73	Sheen	47.03	Sheen	NA	Sheen	10.00	3321.31	
RW-5	02/28/18	3368.34	59.73	Sheen	46.80	Sheen	NA	NA	NA	3321.54	
RW-5	03/07/18	3368.34	59.73	Sheen	46.40	Sheen	NA	NA	NA	3321.94	Sampled
RW-5	03/15/18	3368.34	59.73	Sheen	46.82	Sheen	NA	NA	10.00	3321.52	
RW-5	03/22/18	3368.34	59.73	Sheen	46.95	Sheen	NA	NA	NA	3321.39	
RW-5	03/28/18	3368.34	59.73	Sheen	46.88	Sheen	NA	NA	10.00	3321.46	
RW-5	04/04/18	3368.34	59.73	Sheen	46.99	Sheen	NA	NA	10.00	3321.35	
RW-5	04/11/18	3368.34	59.73	Sheen	46.92	Sheen	NA	Sheen	10.00	3321.42	
RW-5	04/19/18	3368.34	59.73	Sheen	47.03	Sheen	NA	Sheen	10.00	3321.31	
RW-5	04/24/18	3368.34	59.73	Sheen	46.98	Sheen	NA	Sheen	10.00	3321.36	
RW-5	05/09/18	3368.34	59.73	nd	46.80	nd	NA	NA	NA	3321.54	
RW-5	05/15/18	3368.34	59.73	nd	46.72	nd	NA	NA	NA	3321.62	
RW-5	05/22/18	3368.34	59.73	nd	46.70	nd	NA	NA	NA	3321.64	
RW-5	05/30/18	3368.34	59.73	nd	46.65	nd	NA	NA	NA	3321.69	
RW-5	06/05/18	3368.34	59.73	Sheen	46.67	Sheen	NA	Sheen	26.00	3321.67	Sampled
RW-5	06/13/18	3368.34	59.73	Sheen	46.70	Sheen	NA	Sheen	10.00	3321.64	
RW-5	06/19/18	3368.34	59.73	nd	46.68	nd	NA	NA	NA	3321.66	
RW-5	06/29/18	3368.34	59.73	Sheen	46.67	Sheen	NA	Sheen	10.00	3321.67	
RW-5	07/05/18	3368.34	59.73	nd	46.73	nd	NA	Sheen	10.00	3321.61	
RW-5	07/11/18	3368.34	59.73	nd	46.70	nd	NA	NA	NA	3321.64	
RW-5	07/18/18	3368.34	59.73	Sheen	46.65	Sheen	NA	Sheen	10.00	3321.69	
RW-5	07/26/18	3368.34	59.73	nd	46.68	nd	NA	NA	NA	3321.66	
RW-5	07/31/18	3368.34	59.73	nd	46.67	nd	NA	NA	NA	3321.67	
RW-5	08/07/18	3368.34	59.73	nd	46.65	nd	NA	NA	NA	3321.69	
RW-5	08/14/18	3368.34	59.73	nd	46.60	nd	NA	NA	10.00	3321.74	
RW-5	08/21/18	3368.34	59.73	nd	46.58	nd	NA	NA	NA	3321.76	
RW-5	08/30/18	3368.34	59.73	Sheen	46.61	Sheen	NA	NA	NA	3321.73	
RW-5	09/06/18	3368.34	59.73	Sheen	46.67	Sheen	NA	NA	NA	3321.67	
RW-5	09/26/18	3368.34	59.73	nd	46.62	nd	NA	NA	NA	3321.72	

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								PSH	H_2O		
RW-5	10/03/18	3368.34	59.73	Sheen	46.61	Sheen	NA	Sheen	10.00	3321.73	
RW-5	10/11/18	3368.34	59.73	nd	46.65	nd	NA	NA	NA	3321.69	
RW-5	10/17/18	3368.34	59.73	nd	46.11	nd	NA	NA	NA	3322.23	
RW-5	10/24/18	3368.34	59.73	Sheen	46.54	Sheen	NA	Sheen	10.00	3321.80	
RW-5	10/31/18	3368.34	59.73	nd	46.53	nd	NA	NA	NA	3321.81	
RW-5	11/06/18	3368.34	59.73	nd	46.55	nd	NA	NA	NA	3321.79	
RW-5	11/13/18	3368.34	59.73	nd	46.60	nd	NA	NA	NA	3321.74	
RW-5	11/21/18	3368.34	59.73	Sheen	46.42	Sheen	NA	NA	NA	3321.92	
RW-5	11/28/18	3368.34	59.73	ND	46.33	ND	NA	NA	NA	3322.01	
RW-5	12/07/18	3368.34	59.73	ND	46.30	ND	NA	NA	NA	3322.04	
RW-5	12/12/18	3368.34	59.73	ND	46.30	ND	NA	NA	NA	3322.04	
RW-5	12/18/18	3368.34	59.73	nd	46.33	nd	NA	NA	NA	3322.01	
RW-5	01/03/19	3368.34	59.73	nd	46.38	nd	NA	NA	NA	3321.96	
RW-5	01/08/19	3368.34	59.73	nd	46.48	nd	NA	NA	NA	3321.86	
RW-5	01/17/19	3368.34	59.73	nd	46.30	nd	NA	NA	10.00	3322.04	
RW-5	01/22/19	3368.34	59.73	nd	46.40	nd	NA	NA	10.00	3321.94	
RW-5	01/29/19	3368.34	59.73	nd	46.33	nd	NA	NA	NA	3322.01	
RW-5	02/05/19	3368.34	59.73	ND	46.38	ND	NA	NA	NA	3321.96	
RW-5	02/12/19	3368.34	59.73	46.28	46.29	0.01	NA	NA	NA	3322.06	
RW-5	02/22/19	3368.34	59.73	ND	46.28	ND	NA	Sheen	10.00	3322.06	
RW-5	02/27/19	3368.34	59.73	nd	46.30	nd	NA	NA	NA	3322.04	
RW-5	03/06/19	3368.34	59.73	Sheen	46.35	Sheen	NA	NA	10.00	3321.99	
RW-5	03/12/19	3368.34	59.73	Sheen	46.39	Sheen	NA	NA	NA	3321.95	
RW-5	03/22/19	3368.34	59.73	46.40	46.41	0.01	NA	Sheen	10.00	3321.94	
RW-5	03/28/19	3368.34	59.73	Sheen	46.21	Sheen	NA	NA	NA	3322.13	
RW-5	04/02/19	3368.34	59.73	Sheen	46.10	Sheen	NA	NA	NA	3322.24	
RW-5	04/10/19	3368.34	59.73	ND	46.01	ND	NA	NA	NA	3322.33	
RW-5	04/16/19	3368.34	59.73	Sheen	46.06	Sheen	NA	NA	NA	3322.28	
RW-5	04/24/19	3368.34	59.73	ND	46.10	ND	NA	NA	NA	3322.24	
RW-5	05/01/19	3368.34	59.73	Sheen	46.00	Sheen	NA	NA	NA	3322.34	
RW-5	05/09/19	3368.34	59.73	Sheen	46.25	Sheen	NA	NA	NA	3322.09	
RW-5	05/17/19	3368.34	59.73	nd	46.29	nd	NA	Sheen	10.00	3322.05	
RW-5	05/24/19	3368.34	59.73	nd	46.32	nd	NA	NA	NA	3322.02	
RW-5	06/05/19	3368.34	59.73	nd	46.34	nd	NA	NA	NA	3322.00	
RW-5	06/14/19	3368.34	59.73	nd	46.13	nd	NA	NA	10.00	3322.21	
RW-5	06/20/19	3368.34	59.73	nd	46.35	nd	NA	NA	NA	3321.99	
RW-5	06/25/19	3368.34	59.73	nd	46.16	nd	NA	NA	10.00	3322.18	

TABLE 2
HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
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Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
RW-5	07/02/19	3368.34	59.73	nd	46.18	nd	NA	NA	NA	3322.16	
RW-5	07/10/19	3368.34	59.73	nd	46.20	nd	NA	NA	NA	3322.14	
RW-5	07/26/19	3368.34	59.73	nd	46.10	nd	NA	NA	NA	3322.24	
RW-5	08/11/19	3368.34	59.73	Sheen	46.21	Sheen	NA	Sheen	10.00	3322.13	
RW-5	08/14/19	3368.34	59.73	Sheen	46.32	Sheen	NA	Sheen	10.00	3322.02	
RW-5	08/21/19	3368.34	59.73	Sheen	46.23	Sheen	NA	NA	NA	3322.11	
RW-5	09/06/19	3368.34	59.73	ND	46.31	ND	NA	NA	NA	3322.03	
RW-5	09/12/19	3368.34	59.73	ND	46.32	ND	NA	NA	NA	3322.02	
RW-5	09/19/19	3368.34	59.73	ND	46.35	ND	NA	NA	NA	3321.99	
RW-5	10/08/19	3368.34	59.73	Sheen	46.29	Sheen	NA	NA	NA	3322.05	
RW-5	10/16/19	3368.34	59.73	Sheen	46.33	Sheen	NA	NA	NA	3322.01	
RW-5	10/23/19	3368.34	59.73	nd	46.23	nd	NA	NA	NA	3322.11	
RW-5	10/31/19	3368.34	59.73	nd	46.31	nd	NA	NA	NA	3322.03	
RW-5	11/05/19	3368.34	59.73	nd	56.31	nd	NA	NA	NA	3312.03	
RW-5	11/14/19	3368.34	59.73	nd	46.30	nd	NA	NA	NA	3322.04	
RW-5	11/26/19	3368.34	59.73	nd	46.13	nd	NA	NA	NA	3322.21	
RW-5	12/04/19	3368.34	59.73	nd	46.18	nd	NA	NA	NA	3322.16	
RW-5	12/13/19	3368.34	59.73	ND	46.12	ND	NA	NA	NA	3322.22	
RW-5	12/20/19	3368.34	59.73	ND	46.19	ND	NA	NA	NA	3322.15	
RW-5	12/26/19	3368.34	59.73	ND	46.16	ND	NA	NA	NA	3322.18	
IW-1	01/04/18	3368.53	64.00	47.65	47.80	0.15	NA	NA	NA	3320.86	
IW-1	01/10/18	3368.53	64.00	47.44	47.66	0.22	NA	NA	NA	3321.06	
IW-1	01/18/18	3368.53	64.00	47.42	47.50	0.08	NA	NA	NA	3321.10	
IW-1	01/25/18	3368.53	64.00	47.40	47.45	0.05	NA	NA	NA	3321.12	
IW-1	02/01/18	3368.53	64.00	47.40	47.45	0.05	NA	NA	NA	3321.12	
IW-1	02/14/18	3368.53	64.00	Sheen	47.26	Sheen	NA	NA	NA	3321.27	
IW-1	02/21/18	3368.53	64.00	Sheen	47.37	Sheen	NA	NA	NA	3321.16	
IW-1	02/28/18	3368.53	64.00	Sheen	47.12	Sheen	NA	NA	NA	3321.41	
IW-1	03/07/18	3368.53	64.00	Sheen	47.14	Sheen	NA	NA	NA	3321.39	sampled
IW-1	03/15/18	3368.53	64.00	Sheen	47.13	Sheen	NA	NA	NA	3321.40	
IW-1	03/22/18	3368.53	64.00	Sheen	47.21	Sheen	NA	NA	NA	3321.32	
IW-1	03/28/18	3368.53	64.00	Sheen	47.17	Sheen	NA	NA	NA	3321.36	
IW-1	04/04/18	3368.53	64.00	Sheen	47.26	Sheen	NA	NA	NA	3321.27	
IW-1	04/11/18	3368.53	64.00	Sheen	47.21	Sheen	NA	NA	NA	3321.32	
IW-1	04/19/18	3368.53	64.00	Sheen	47.26	Sheen	NA	NA	NA	3321.27	
IW-1	04/24/18	3368.53	64.00	Sheen	47.28	Sheen	NA	NA	NA	3321.25	

TABLE 2
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
IW-1	05/09/18	3368.53	64.00	Sheen	47.00	Sheen	NA	NA	NA	3321.53	
IW-1	05/15/18	3368.53	64.00	Sheen	47.02	Sheen	NA	NA	NA	3321.51	
IW-1	05/22/18	3368.53	64.00	Sheen	47.00	Sheen	NA	NA	NA	3321.53	
IW-1	05/30/18	3368.53	64.00	Sheen	46.93	Sheen	NA	NA	NA	3321.60	
IW-1	06/05/18	3368.53	64.00	ND	46.96	ND	NA	Sheen	34.00	3321.57	sampled
IW-1	06/13/18	3368.53	64.00	Sheen	46.99	Sheen	NA	NA	NA	3321.54	
IW-1	06/19/18	3368.53	64.00	Sheen	47.01	Sheen	NA	NA	NA	3321.52	
IW-1	06/29/18	3368.53	64.00	Sheen	46.99	Sheen	NA	NA	NA	3321.54	
IW-1	07/05/18	3368.53	64.00	ND	46.98	ND	NA	NA	NA	3321.55	
IW-1	07/11/18	3368.53	64.00	46.99	47.01	0.02	NA	NA	NA	3321.54	
IW-1	07/18/18	3368.53	64.00	46.95	46.96	0.01	NA	NA	NA	3321.58	
IW-1	07/26/18	3368.53	64.00	46.95	46.97	0.02	NA	NA	NA	3321.58	
IW-1	07/31/18	3368.53	64.00	Sheen	46.95	Sheen	NA	NA	NA	3321.58	
IW-1	08/07/18	3368.53	64.00	Sheen	46.92	Sheen	NA	NA	NA	3321.61	
IW-1	08/14/18	3368.53	64.00	46.90	46.91	0.01	NA	NA	NA	3321.63	pump
IW-1	08/21/18	3368.53	64.00	46.88	46.89	0.01	NA	NA	NA	3321.65	pump
IW-1	08/30/18	3368.53	64.00	46.91	46.93	0.02	NA	NA	NA	3321.62	pump
IW-1	09/06/18	3368.53	64.00	Sheen	46.95	Sheen	NA	NA	NA	3321.58	pump
IW-1	09/26/18	3368.53	64.00	46.94	46.95	0.01	NA	NA	NA	3321.59	pump
IW-1	10/03/18	3368.53	64.00	46.91	46.93	0.02	NA	NA	NA	3321.62	pump
IW-1	10/11/18	3368.53	64.00	46.96	46.97	0.01	NA	NA	NA	3321.57	pump
IW-1	10/17/18	3368.53	64.00	46.48	46.50	0.02	NA	NA	NA	3322.05	pump
IW-1	10/24/18	3368.53	64.00	46.62	46.63	0.01	NA	NA	NA	3321.91	pump
IW-1	10/31/18	3368.53	64.00	46.77	46.78	0.01	NA	NA	NA	3321.76	pump
IW-1	11/06/18	3368.53	64.00	46.83	46.85	0.02	NA	NA	NA	3321.70	pump
IW-1	11/13/18	3368.53	64.00	46.89	46.90	0.01	NA	NA	NA	3321.64	pump
IW-1	11/21/18	3368.53	64.00	46.72	46.74	0.02	NA	NA	NA	3321.81	pump
IW-1	11/28/18	3368.53	64.00	46.65	46.67	0.02	NA	NA	NA	3321.88	pump
IW-1	12/07/18	3368.53	64.00	46.66	46.67	0.01	NA	NA	NA	3321.87	pump
IW-1	12/12/18	3368.53	64.00	46.69	46.71	0.02	NA	NA	NA	3321.84	pump
IW-1	12/18/18	3368.53	64.00	46.72	46.74	0.02	NA	NA	NA	3321.81	pump
IW-1	01/03/19	3368.53	64.00	46.75	46.77	0.02	NA	NA	NA	3321.78	
IW-1	01/08/19	3368.53	64.00	46.77	46.78	0.01	NA	NA	NA	3321.76	
IW-1	01/17/19	3368.53	64.00	Sheen	46.58	Sheen	NA	NA	NA	3321.95	
IW-1	01/22/19	3368.53	64.00	ND	46.62	ND	NA	NA	NA	3321.91	
IW-1	01/29/19	3368.53	64.00	46.60	46.61	0.01	NA	NA	NA	3321.93	
IW-1	02/05/09	3368.53	64.00	46.65	46.66	0.01	NA	NA	NA	3321.88	

TABLE 2
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
IW-1	02/12/19	3368.53	64.00	46.63	46.64	0.01	NA	NA	NA	3321.90	
IW-1	02/22/19	3368.53	64.00	ND	46.55	ND	NA	NA	NA	3321.98	
IW-1	02/27/19	3368.53	64.00	Sheen	46.61	Sheen	NA	NA	NA	3321.92	
IW-1	03/06/19	3368.53	64.00	46.64	46.65	0.01	NA	NA	NA	3321.89	
IW-1	03/12/19	3368.53	64.00	46.65	46.67	0.02	NA	NA	NA	3321.88	
IW-1	03/22/19	3368.53	64.00	46.65	46.67	0.02	NA	NA	NA	3321.88	
IW-1	03/28/19	3368.53	64.00	46.40	46.41	0.01	NA	NA	NA	3322.13	
IW-1	04/02/19	3368.53	64.00	Sheen	46.44	Sheen	NA	NA	NA	3322.09	
IW-1	04/10/19	3368.53	64.00	Sheen	46.31	Sheen	NA	NA	NA	3322.22	pump
IW-1	04/16/19	3368.53	64.00	Sheen	46.37	Sheen	NA	NA	NA	3322.16	pump
IW-1	04/24/19	3368.53	64.00	46.38	46.39	0.01	NA	NA	NA	3322.15	pump
IW-1	05/01/19	3368.53	64.00	46.31	46.32	0.01	NA	NA	NA	3322.22	pump
IW-1	05/09/19	3368.53	64.00	46.50	46.52	0.02	NA	NA	NA	3322.03	pump
IW-1	05/17/19	3368.53	64.00	Sheen	46.55	Sheen	NA	NA	NA	3321.98	pump
IW-1	05/24/19	3368.53	64.00	46.57	46.58	0.01	NA	NA	NA	3321.96	pump
IW-1	06/05/19	3368.53	64.00	46.58	46.59	0.01	NA	NA	NA	3321.95	pump
IW-1	06/14/19	3368.53	64.00	ND	46.39	ND	NA	NA	NA	3322.14	pump
IW-1	06/20/19	3368.53	64.00	Sheen	46.65	Sheen	NA	NA	NA	3321.88	pump
IW-1	06/25/19	3368.53	64.00	ND	46.41	ND	NA	NA	NA	3322.12	pump
IW-1	07/02/19	3368.53	64.00	46.44	46.45	0.01	NA	NA	NA	3322.09	pump
IW-1	07/10/19	3368.53	64.00	ND	46.39	ND	NA	NA	NA	3322.14	pump
IW-1	07/26/19	3368.53	64.00	46.47	46.48	0.01	NA	NA	NA	3322.06	pump
IW-1	08/11/19	3368.53	64.00	46.50	46.52	0.02	NA	NA	NA	3322.03	pump
IW-1	08/14/19	3368.53	64.00	46.57	46.63	0.06	NA	NA	NA	3321.95	pump
IW-1	08/21/19	3368.53	64.00	46.55	46.56	0.01	NA	NA	NA	3321.98	pump
IW-1	09/06/19	3368.53	64.00	46.48	46.52	0.04	NA	NA	NA	3322.04	pump
IW-1	09/12/19	3368.53	64.00	46.52	46.58	0.06	NA	NA	NA	3322.00	pump
IW-1	09/19/19	3368.53	64.00	46.57	46.63	0.06	NA	NA	NA	3321.95	pump
IW-1	10/08/19	3368.53	64.00	46.59	46.60	0.01	NA	NA	NA	3321.94	pump
IW-1	10/16/19	3368.53	64.00	46.62	46.63	0.01	NA	NA	NA	3321.91	pump
IW-1	10/23/19	3368.53	64.00	46.57	46.60	0.03	NA	NA	NA	3321.96	pump
IW-1	10/31/19	3368.53	64.00	46.56	46.58	0.02	NA	NA	NA	3321.97	pump
IW-1	11/05/19	3368.53	64.00	ND	46.65	ND	NA	NA	NA	3321.88	pump
IW-1	11/14/19	3368.53	64.00	46.58	46.60	0.02	NA	NA	NA	3321.95	pump
IW-1	11/26/19	3368.53	64.00	46.60	46.64	0.04	NA	NA	NA	3321.92	pump
IW-1	12/04/19	3368.53	64.00	46.62	46.66	0.04	NA	NA	NA	3321.90	pump
IW-1	12/13/19	3368.53	64.00	46.39	46.40	0.01	NA	NA	NA	3322.14	pump

TABLE 2
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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
IW-1	12/20/19	3368.53	64.00	46.38	46.42	0.04	NA	NA	NA	3322.14	pump
IW-1	12/26/19	3368.53	64.00	46.40	46.44	0.04	NA	NA	NA	3322.12	pump
IW-2	01/04/18	3368.63	64.05	Sheen	47.63	Sheen	NA	NA	NA	3321.00	
IW-2	01/10/18	3368.63	64.05	Sheen	47.49	Sheen	NA	NA	NA	3321.14	
IW-2	01/18/18	3368.63	64.05	Sheen	47.43	Sheen	NA	NA	NA	3321.20	
IW-2	01/25/18	3368.63	64.05	Sheen	47.44	Sheen	NA	NA	NA	3321.19	
IW-2	02/01/18	3368.63	64.05	ND	47.40	ND	NA	NA	NA	3321.23	
IW-2	02/14/18	3368.63	64.05	Sheen	47.39	Sheen	NA	NA	NA	3321.24	
IW-2	02/21/18	3368.63	64.05	ND	47.40	ND	NA	NA	NA	3321.23	
IW-2	02/28/18	3368.63	64.05	ND	47.14	ND	NA	NA	NA	3321.49	
IW-2	03/07/18	3368.63	64.05	Sheen	47.22	Sheen	NA	NA	NA	3321.41	sampled
IW-2	03/15/18	3368.63	64.05	Sheen	47.13	Sheen	NA	NA	NA	3321.50	
IW-2	03/22/18	3368.63	64.05	Sheen	47.26	Sheen	NA	NA	NA	3321.37	
IW-2	03/28/18	3368.63	64.05	Sheen	47.19	Sheen	NA	NA	NA	3321.44	
IW-2	04/04/18	3368.63	64.05	Sheen	47.28	Sheen	NA	NA	NA	3321.35	
IW-2	04/11/18	3368.63	64.05	Sheen	47.30	Sheen	NA	NA	NA	3321.33	
IW-2	04/19/18	3368.63	64.05	Sheen	47.36	Sheen	NA	NA	NA	3321.27	
IW-2	04/24/18	3368.63	64.05	Sheen	47.38	Sheen	NA	NA	NA	3321.25	
IW-2	05/09/18	3368.63	64.05	Sheen	47.18	Sheen	NA	NA	NA	3321.45	
IW-2	05/15/18	3368.63	64.05	Sheen	47.03	Sheen	NA	NA	NA	3321.60	
IW-2	05/22/18	3368.63	64.05	Sheen	46.99	Sheen	NA	NA	NA	3321.64	
IW-2	05/30/18	3368.63	64.05	Sheen	46.97	Sheen	NA	NA	NA	3321.66	
IW-2	06/05/18	3368.63	64.05	ND	46.94	ND	NA	Sheen	34.00	3321.69	sampled
IW-2	06/13/18	3368.63	64.05	Sheen	46.97	Sheen	NA	NA	NA	3321.66	
IW-2	06/19/18	3368.63	64.05	Sheen	46.97	Sheen	NA	NA	NA	3321.66	
IW-2	06/29/18	3368.63	64.05	Sheen	47.01	Sheen	NA	NA	NA	3321.62	
IW-2	07/05/18	3368.63	64.05	ND	46.96	ND	NA	NA	NA	3321.67	
IW-2	07/11/18	3368.63	64.05	47.00	47.05	0.05	NA	NA	NA	3321.62	
IW-2	07/18/18	3368.63	64.05	46.97	46.99	0.02	NA	NA	NA	3321.66	
IW-2	07/26/18	3368.63	64.05	46.97	46.99	0.02	NA	NA	NA	3321.66	
IW-2	07/31/18	3368.63	64.05	Sheen	46.96	Sheen	NA	NA	NA	3321.67	
IW-2	08/07/18	3368.63	64.05	Sheen	46.93	Sheen	NA	NA	NA	3321.70	
IW-2	08/14/18	3368.63	64.05	Sheen	46.89	Sheen	NA	NA	NA	3321.74	pump
IW-2	08/21/18	3368.63	64.05	Sheen	46.86	Sheen	NA	NA	NA	3321.77	pump
IW-2	08/30/18	3368.63	64.05	46.90	46.91	0.01	NA	NA	NA	3321.73	pump
IW-2	09/06/18	3368.63	64.05	46.95	46.97	0.02	NA	NA	NA	3321.68	pump

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HISTORICAL MONITOR WELL SURVEY DATA AND GROUNDWATER ELEVATIONS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
IW-2	09/26/18	3368.63	64.05	Sheen	46.90	Sheen	NA	NA	NA	3321.73	pump
IW-2	10/03/18	3368.63	64.05	Sheen	46.92	Sheen	NA	NA	NA	3321.71	pump
IW-2	10/11/18	3368.63	64.05	46.92	46.93	0.01	NA	NA	NA	3321.71	pump
IW-2	10/17/18	3368.63	64.05	46.50	46.51	0.01	NA	NA	NA	3322.13	pump
IW-2	10/24/18	3368.63	64.05	46.65	46.66	0.01	NA	NA	NA	3321.98	pump
IW-2	10/31/18	3368.63	64.05	46.80	46.81	0.01	NA	NA	NA	3321.83	pump
IW-2	11/06/18	3368.63	64.05	46.84	46.85	0.01	NA	NA	NA	3321.79	pump
IW-2	11/13/18	3368.63	64.05	46.91	46.92	0.01	NA	NA	NA	3321.72	pump
IW-2	11/21/18	3368.63	64.05	46.81	46.82	0.01	NA	NA	NA	3321.82	pump
IW-2	11/28/18	3368.63	64.05	nd	46.72	nd	NA	NA	NA	3321.91	pump
IW-2	12/07/18	3368.63	64.05	Sheen	46.75	Sheen	NA	NA	NA	3321.88	pump
IW-2	12/12/18	3368.63	64.05	46.76	46.78	0.02	NA	NA	NA	3321.87	pump
IW-2	12/18/18	3368.63	64.05	Sheen	46.88	Sheen	NA	NA	NA	3321.75	pump
IW-2	01/03/19	3368.63	64.05	46.81	46.82	0.01	NA	NA	NA	3321.82	
IW-2	01/08/19	3368.63	64.05	46.80	46.81	0.01	NA	NA	NA	3321.83	
IW-2	01/17/19	3368.63	64.05	ND	46.72	ND	NA	NA	NA	3321.91	
IW-2	01/22/19	3368.63	64.05	ND	46.77	ND	NA	NA	NA	3321.86	
IW-2	01/29/19	3368.63	64.05	Sheen	46.62	Sheen	NA	NA	NA	3322.01	
IW-2	02/05/19	3368.63	64.05	46.71	46.72	0.01	NA	NA	NA	3321.92	
IW-2	02/12/19	3368.63	64.05	46.62	46.63	0.01	NA	NA	NA	3322.01	
IW-2	02/22/19	3368.63	64.05	ND	46.70	ND	NA	NA	NA	3321.93	
IW-2	02/27/19	3368.63	64.05	46.70	46.71	0.01	NA	NA	NA	3321.93	
IW-2	03/06/19	3368.63	64.05	46.75	46.77	0.02	NA	NA	NA	3321.88	
IW-2	03/12/19	3368.63	64.05	46.77	46.80	0.03	NA	NA	NA	3321.86	
IW-2	03/22/19	3368.63	64.05	46.76	46.77	0.01	NA	NA	NA	3321.87	
IW-2	03/28/19	3368.63	64.05	46.41	46.42	0.01	NA	NA	NA	3322.22	
IW-2	04/02/19	3368.63	64.05	46.41	46.42	0.01	NA	NA	NA	3322.22	
IW-2	04/10/19	3368.63	64.05	Sheen	46.32	Sheen	NA	NA	NA	3322.31	pump
IW-2	04/16/19	3368.63	64.05	Sheen	46.38	Sheen	NA	NA	NA	3322.25	pump
IW-2	04/24/19	3368.63	64.05	Sheen	46.40	Sheen	NA	NA	NA	3322.23	pump
IW-2	05/01/19	3368.63	64.05	46.32	46.34	0.02	NA	NA	NA	3322.31	pump
IW-2	05/09/19	3368.63	64.05	Sheen	46.54	Sheen	NA	NA	NA	3322.09	pump
IW-2	05/17/19	3368.63	64.05	ND	46.61	ND	NA	NA	NA	3322.02	pump
IW-2	05/24/19	3368.63	64.05	Sheen	46.62	Sheen	NA	NA	NA	3322.01	pump
IW-2	06/05/19	3368.63	64.05	Sheen	46.65	Sheen	NA	NA	NA	3321.98	pump
IW-2	06/14/19	3368.63	64.05	ND	46.40	ND	NA	NA	NA	3322.23	pump
IW-2	06/20/19	3368.63	64.05	Sheen	46.69	Sheen	NA	NA	NA	3321.94	pump

TABLE 2
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								PSH	H_2O		
IW-2	06/25/19	3368.63	64.05	ND	46.41	ND	NA	NA	NA	3322.22	pump
IW-2	07/02/19	3368.63	64.05	Sheen	46.45	Sheen	NA	NA	NA	3322.18	pump
IW-2	07/10/19	3368.63	64.05	ND	46.39	ND	NA	NA	NA	3322.24	pump
IW-2	07/26/19	3368.63	64.05	46.49	46.50	0.01	NA	NA	NA	3322.14	pump
IW-2	08/11/19	3368.63	64.05	Sheen	46.51	Sheen	NA	NA	NA	3322.12	pump
IW-2	08/14/19	3368.63	64.05	ND	46.64	ND	NA	NA	NA	3321.99	pump
IW-2	08/21/19	3368.63	64.05	Sheen	46.64	Sheen	NA	NA	NA	3321.99	pump
IW-2	09/06/19	3368.63	64.05	ND	46.68	ND	NA	NA	NA	3321.95	pump
IW-2	09/19/19	3368.63	64.05	ND	46.53	ND	NA	NA	NA	3322.10	pump
IW-2	09/12/19	3368.63	64.05	ND	46.48	ND	NA	NA	NA	3322.15	pump
IW-2	10/08/19	3368.63	64.05	ND	46.68	ND	NA	NA	NA	3321.95	pump
IW-2	10/16/19	3368.63	64.05	ND	46.65	ND	NA	NA	NA	3321.98	pump
IW-2	10/23/19	3368.63	64.05	ND	46.69	ND	NA	NA	NA	3321.94	pump
IW-2	10/31/19	3368.63	64.05	ND	46.59	ND	NA	NA	NA	3322.04	pump
IW-2	11/05/19	3368.63	64.05	46.75	46.78	0.03	NA	NA	NA	3321.88	pump
IW-2	11/14/19	3368.63	64.05	ND	46.58	ND	NA	NA	NA	3322.05	pump
IW-2	11/26/19	3368.63	64.05	ND	46.42	ND	NA	NA	NA	3322.21	pump
IW-2	12/04/19	3368.63	64.05	ND	46.45	ND	NA	NA	NA	3322.18	pump
IW-2	12/13/19	3368.63	64.05	ND	46.40	ND	NA	NA	NA	3322.23	pump
IW-2	12/20/19	3368.63	64.05	ND	46.41	ND	NA	NA	NA	3322.22	pump
IW-2	12/26/19	3368.63	64.05	ND	46.38	ND	NA	NA	NA	3322.25	pump
IW-3	01/04/18	3368.96	63.86	47.87	47.89	0.02	NA	NA	NA	3321.09	
IW-3	01/10/18	3368.96	63.86	Sheen	47.69	Sheen	NA	NA	NA	3321.27	
IW-3	01/18/18	3368.96	63.86	Sheen	47.71	Sheen	NA	NA	NA	3321.25	
IW-3	01/25/18	3368.96	63.86	Sheen	47.63	Sheen	NA	NA	NA	3321.33	
IW-3	02/01/18	3368.96	63.86	Sheen	47.65	Sheen	NA	NA	NA	3321.31	
IW-3	02/14/18	3368.96	63.86	Sheen	47.47	Sheen	NA	NA	NA	3321.49	
IW-3	02/21/18	3368.96	63.86	ND	47.53	ND	NA	NA	NA	3321.43	
IW-3	02/28/18	3368.96	63.86	Sheen	47.37	Sheen	NA	NA	NA	3321.59	
IW-3	03/07/18	3368.96	63.86	ND	47.31	ND	NA	NA	NA	3321.65	sampled
IW-3	03/15/18	3368.96	63.86	47.35	47.36	0.01	NA	NA	NA	3321.61	
IW-3	03/22/18	3368.96	63.86	47.48	47.49	0.01	NA	NA	NA	3321.48	
IW-3	03/28/18	3368.96	63.86	47.38	47.40	0.02	NA	NA	NA	3321.58	
IW-3	04/04/18	3368.96	63.86	47.49	47.51	0.02	NA	NA	NA	3321.47	
IW-3	04/11/18	3368.96	63.86	47.56	47.58	0.02	NA	NA	NA	3321.40	
IW-3	04/19/18	3368.96	63.86	47.61	47.62	0.01	NA	NA	NA	3321.35	

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Well Number	Date Measured	Top of Casing Elevation (ft)	Total Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	PSH Thickness (ft)	Recovery Method	Recovery (gallons)		Corrected Groundwater Elevation (ft)	Comments
								PSH	H_2O		
IW-3	04/24/18	3368.96	63.86	47.59	47.60	0.01	NA	NA	NA	3321.37	
IW-3	05/09/18	3368.96	63.86	47.25	47.26	0.01	NA	NA	NA	3321.71	
IW-3	05/15/18	3368.96	63.86	47.21	47.22	0.01	NA	NA	NA	3321.75	
IW-3	05/22/18	3368.96	63.86	Sheen	47.19	Sheen	NA	NA	NA	3321.77	
IW-3	05/30/18	3368.96	63.86	Sheen	47.16	Sheen	NA	NA	NA	3321.80	
IW-3	06/05/18	3368.96	63.86	ND	47.19	ND	NA	Sheen	33.00	3321.77	sampled
IW-3	06/13/18	3368.96	63.86	Sheen	47.20	Sheen	NA	NA	NA	3321.76	
IW-3	06/19/18	3368.96	63.86	Sheen	47.18	Sheen	NA	NA	NA	3321.78	
IW-3	06/29/18	3368.96	63.86	Sheen	47.19	Sheen	NA	NA	NA	3321.77	
IW-3	07/05/18	3368.96	63.86	ND	47.20	ND	NA	NA	NA	3321.76	
IW-3	07/11/18	3368.96	63.86	Sheen	47.15	Sheen	NA	NA	NA	3321.81	
IW-3	07/18/18	3368.96	63.86	47.10	47.12	0.02	NA	NA	NA	3321.86	
IW-3	07/26/18	3368.96	63.86	Sheen	47.12	Sheen	NA	NA	NA	3321.84	
IW-3	07/31/18	3368.96	63.86	Sheen	47.13	Sheen	NA	NA	NA	3321.83	
IW-3	08/07/18	3368.96	63.86	Sheen	47.10	Sheen	NA	NA	NA	3321.86	
IW-3	08/14/18	3368.96	63.86	Sheen	47.06	Sheen	NA	NA	NA	3321.90	pump
IW-3	08/21/18	3368.96	63.86	Sheen	47.04	Sheen	NA	NA	NA	3321.92	pump
IW-3	08/30/18	3368.96	63.86	Sheen	47.09	Sheen	NA	NA	NA	3321.87	pump
IW-3	09/06/18	3368.96	63.86	47.15	47.19	0.04	NA	NA	NA	3321.80	pump
IW-3	09/26/18	3368.96	63.86	Sheen	47.10	Sheen	NA	NA	NA	3321.86	pump
IW-3	10/03/18	3368.96	63.86	Sheen	47.12	Sheen	NA	NA	NA	3321.84	pump
IW-3	10/11/18	3368.96	63.86	Sheen	47.11	Sheen	NA	NA	NA	3321.85	pump
IW-3	10/17/18	3368.96	63.86	46.71	46.72	0.01	NA	NA	NA	3322.25	pump
IW-3	10/24/18	3368.96	63.86	46.84	46.85	0.01	NA	NA	NA	3322.12	pump
IW-3	10/31/18	3368.96	63.86	47.02	47.03	0.01	NA	NA	NA	3321.94	pump
IW-3	11/06/18	3368.96	63.86	47.12	47.13	0.01	NA	NA	NA	3321.84	pump
IW-3	11/13/18	3368.96	63.86	47.14	47.15	0.01	NA	NA	NA	3321.82	pump
IW-3	11/21/18	3368.96	63.86	47.02	47.03	0.01	NA	NA	NA	3321.94	pump
IW-3	11/28/18	3368.96	63.86	46.88	46.91	0.03	NA	NA	NA	3322.08	pump
IW-3	12/07/18	3368.96	63.86	46.90	46.92	0.02	NA	NA	NA	3322.06	pump
IW-3	12/12/18	3368.96	63.86	46.90	46.91	0.01	NA	NA	NA	3322.06	pump
IW-3	12/18/18	3368.96	63.86	Sheen	46.90	Sheen	NA	NA	NA	3322.06	pump
IW-3	01/03/19	3368.96	63.86	46.93	46.94	0.01	NA	NA	NA	3322.03	
IW-3	01/08/19	3368.96	63.86	46.96	46.97	0.01	NA	NA	NA	3322.00	
IW-3	01/17/19	3368.96	63.86	46.82	46.85	0.03	NA	NA	NA	3322.14	
IW-3	01/22/19	3368.96	63.86	46.85	46.87	0.02	NA	NA	NA	3322.11	
IW-3	01/29/19	3368.96	63.86	46.85	46.88	0.03	NA	NA	NA	3322.11	

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								PSH	H_2O		
IW-3	02/05/19	3368.96	63.86	46.90	46.91	0.01	NA	NA	NA	3322.06	
IW-3	02/12/19	3368.96	63.86	46.79	46.84	0.05	NA	NA	NA	3322.16	
IW-3	02/22/19	3368.96	63.86	46.76	46.77	0.01	NA	NA	NA	3322.20	
IW-3	02/27/19	3368.96	63.86	46.88	46.89	0.01	NA	NA	NA	3322.08	
IW-3	03/06/19	3368.96	63.86	46.93	46.94	0.01	NA	NA	NA	3322.03	
IW-3	03/12/19	3368.96	63.86	46.90	46.91	0.01	NA	NA	NA	3322.06	
IW-3	03/22/19	3368.96	63.86	46.88	46.89	0.01	NA	NA	NA	3322.08	
IW-3	03/28/19	3368.96	63.86	47.00	47.01	0.01	NA	NA	NA	3321.96	
IW-3	04/02/19	3368.96	63.86	47.68	47.69	0.01	NA	NA	NA	3321.28	
IW-3	04/10/19	3368.96	63.86	47.52	47.53	0.01	NA	NA	10.00	3321.44	pump
IW-3	04/16/19	3368.96	63.86	Sheen	47.52	Sheen	NA	NA	NA	3321.44	pump
IW-3	04/24/19	3368.96	63.86	47.51	47.52	0.01	NA	NA	NA	3321.45	pump
IW-3	05/01/19	3368.96	63.86	47.44	47.45	0.01	NA	NA	NA	3321.52	pump
IW-3	05/09/19	3368.96	63.86	46.74	46.79	0.05	NA	NA	NA	3322.21	pump
IW-3	05/17/19	3368.96	63.86	Sheen	46.84	Sheen	NA	NA	NA	3322.12	pump
IW-3	05/24/19	3368.96	63.86	Sheen	46.86	Sheen	NA	NA	NA	3322.10	pump
IW-3	06/05/19	3368.96	63.86	Sheen	46.85	Sheen	NA	NA	NA	3322.11	pump
IW-3	06/14/19	3368.96	63.86	46.62	46.66	0.04	NA	NA	NA	3322.33	pump
IW-3	06/20/19	3368.96	63.86	Sheen	46.89	Sheen	NA	NA	NA	3322.07	pump
IW-3	06/25/19	3368.96	63.86	ND	46.61	ND	NA	NA	NA	3322.35	pump
IW-3	07/02/19	3368.96	63.86	46.60	46.61	0.01	NA	NA	NA	3322.36	pump
IW-3	07/10/19	3368.96	46.65	46.66	47.03	0.37	NA	NA	NA	3322.24	pump
IW-3	07/28/19	3368.96	63.86	Sheen	46.62	Sheen	NA	NA	NA	3322.34	pump
IW-3	08/11/19	3368.96	63.86	46.73	46.74	0.01	NA	NA	NA	3322.23	pump
IW-3	08/14/19	3368.96	63.86	46.77	46.88	0.11	NA	NA	NA	3322.17	pump
IW-3	08/21/19	3368.96	63.86	46.74	46.75	0.01	NA	NA	NA	3322.22	pump
IW-3	09/06/19	3368.96	63.86	46.75	46.80	0.05	NA	NA	NA	3322.20	pump
IW-3	09/12/19	3368.96	63.86	46.70	46.78	0.08	NA	NA	NA	3322.25	pump
IW-3	09/19/19	3368.96	63.86	46.77	46.83	0.06	NA	NA	NA	3322.18	pump
IW-3	10/08/19	3368.96	63.86	46.64	46.72	0.08	NA	NA	NA	3322.31	pump
IW-3	10/16/19	3368.96	63.86	46.60	46.68	0.08	NA	NA	NA	3322.35	pump
IW-3	10/23/19	3368.96	63.86	46.63	46.68	0.05	NA	NA	NA	3322.32	pump
IW-3	10/31/19	3368.96	63.86	46.76	46.83	0.07	NA	NA	NA	3322.19	pump
IW-3	11/05/19	3368.96	63.86	46.75	46.82	0.07	NA	NA	NA	3322.20	pump
IW-3	11/14/19	3368.96	63.86	46.78	46.85	0.07	NA	NA	NA	3322.17	pump
IW-3	11/26/19	3368.96	63.86	46.75	46.79	0.04	NA	NA	NA	3322.20	pump
IW-3	12/04/19	3368.96	63.86	46.78	46.82	0.04	NA	NA	NA	3322.17	pump

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								PSH	H_2O		
IW-3	12/13/19	3368.96	63.86	46.58	46.71	0.13	NA	NA	NA	3322.36	pump
IW-3	12/20/19	3368.96	63.86	46.60	46.70	0.10	NA	NA	NA	3322.35	pump
IW-3	12/26/19	3368.96	63.86	46.58	46.69	0.11	NA	NA	NA	3322.36	pump

NA: Not applicable
ND: Not detected
NS: Not surveyed
NG: Not gauged

TABLE 3
2019 GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
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Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
MW-1	02/13/19	NS	NS	NS	NS	NS
MW-1	05/08/19	L1098116-01	**0.0314**	0.00620	0.168	<0.0150
MW-1	08/22/19	NS	NS	NS	NS	NS
MW-1	11/06/19	NS	NS	NS	NS	NS
MW-2	02/13/19	L1070835-01	<0.001	<0.001	<0.001	<0.003
MW-2	05/08/19	L1098116-02	<0.001	0.00297	<0.001	<0.003
MW-2	08/22/19	L1132371-01	<0.001	<0.001	<0.001	<0.003
MW-2	11/06/19	L1158978-01	<0.001	<0.001	<0.001	<0.003
MW-3	02/13/19	L1070835-02	<0.001	<0.001	<0.001	<0.003
MW-3	05/08/19	L1098116-03	<0.001	0.00407	<0.001	<0.003
MW-3	08/22/19	L1132371-02	<0.001	<0.001	<0.001	<0.003
MW-3	11/06/19	L1158978-02	<0.001	<0.001	<0.001	<0.003
MW-4	02/13/19	L1070835-03	<0.001	<0.001	<0.001	<0.003
MW-4	05/08/19	L1098116-04	<0.001	<0.001	<0.001	<0.003
MW-4	08/22/19	L1132371-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/06/19	L1158978-03	<0.001	<0.001	<0.001	<0.003
MW-5	02/13/19	L1070835-04	<0.001	<0.001	<0.001	<0.003
MW-5	05/08/19	L1098116-05	<0.001	<0.001	<0.001	<0.003
MW-5	08/22/19	L1132371-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/06/19	L1158978-04	<0.001	<0.001	<0.001	<0.003
MW-6	02/13/19	L1070835-05	<0.001	<0.001	<0.001	<0.003
MW-6	05/08/19	L1098116-06	<0.001	<0.001	<0.001	<0.003
MW-6	08/22/19	L1132371-05	<0.001	<0.001	<0.001	<0.003
MW-6	11/06/19	L1158978-05	<0.001	<0.001	<0.001	<0.003

TABLE 3
2019 GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
MW-7	02/13/19	L1070835-06	<0.001	<0.001	<0.001	<0.003
MW-7	05/08/19	L1098116-07	<0.001	0.00536	<0.001	<0.003
MW-7	08/22/19	L1132371-06	<0.001	<0.001	<0.001	<0.003
MW-7	11/06/19	L1158978-06	<0.001	<0.001	<0.001	<0.003
MW-8	02/13/19	L1070835-07	<0.001	<0.001	<0.001	<0.003
MW-8	05/08/19	L1098116-08	<0.001	<0.001	<0.001	<0.003
MW-8	08/22/19	L1132371-07	<0.001	<0.001	<0.001	<0.003
MW-8	11/06/19	L1158978-07	<0.001	<0.001	<0.001	<0.003
MW-9	02/13/19	L1070835-08	<0.001	<0.001	<0.001	<0.003
MW-9	05/08/19	L1098116-09	<0.001	<0.001	<0.001	<0.003
MW-9	08/22/19	L1132371-08	<0.001	<0.001	<0.001	<0.003
MW-9	11/06/19	L1158978-08	<0.001	<0.001	<0.001	<0.003
RW-1	02/13/19	NS	NS	NS	NS	NS
RW-1	05/08/19	L1098116-10	**0.0107**	<0.005	0.0180	0.0186
RW-1	08/22/19	L1132371-09	**0.0324**	<0.005	0.0166	0.0597
RW-1	11/06/19	NS	NS	NS	NS	NS
RW-2	02/13/19	NS	NS	NS	NS	NS
RW-2	05/08/19	L1098116-11	**0.106**	0.00518	0.0668	0.0203
RW-2	08/22/19	L1132371-10	0.00435	<0.001	0.00577	0.00520
RW-2	11/06/19	L1158978-09	0.00105	<0.001	0.00744	<0.003
RW-3	02/13/19	NS	NS	NS	NS	NS
RW-3	05/08/19	L1098116-12	**0.0117**	0.00208	0.0425	0.0194

TABLE 3
2019 GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
RW-3	08/22/19	NS	NS	NS	NS	NS
RW-3	11/06/19	NS	NS	NS	NS	NS
RW-4	02/13/19	NS	NS	NS	NS	NS
RW-4	05/08/19	L1098116-13	<0.005	<0.005	0.161	<0.0150
RW-4	08/22/19	L1132371-11	0.00699	<0.001	0.130	0.00419
RW-4	11/06/19	L1158978-10	0.00258	<0.001	0.0570	<0.003
RW-5	02/13/19	NS	NS	NS	NS	NS
RW-5	05/08/19	L1098116-14	0.00516	<0.001	0.00471	<0.003
RW-5	08/22/19	L1132371-12	<0.001	<0.001	0.00447	<0.003
RW-5	11/06/19	L1158978-11	<0.001	<0.001	0.00252	<0.003
IW-1	02/13/19	NS	NS	NS	NS	NS
IW-1	05/08/19	L1098116-15	**1.710**	0.00815	0.483	0.490
IW-1	08/22/19	NS	NS	NS	NS	NS
IW-1	11/06/19	NS	NS	NS	NS	NS
IW-2	02/13/19	NS	NS	NS	NS	NS
IW-2	05/08/19	L1098116-16	**0.0665**	<0.001	0.0584	0.0480
IW-2	08/22/19	L1132371-13	0.0021	<0.001	<0.001	0.00871
IW-2	11/06/19	NS	NS	NS	NS	NS

TABLE 3
2019 GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L
IW-3	02/13/19	NS	NS	NS	NS	NS
IW-3	05/08/19	L1098116-17	**0.347**	0.0189	0.243	0.382
IW-3	08/22/19	NS	NS	NS	NS	NS
IW-3	11/06/19	NS	NS	NS	NS	NS

NMOCD: New Mexico Oil Conservation Division
Exceedences of NMOCD Remediation Criteria are shown in **bold**
J: Analyte detected below method detection limit (MDL but above sample detection limit (SDL)
[a] = Results from run 2 (dilution factor = 5)
* Values reported from run 2 as carry over was reported in run 1

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-1	06/02/11	1106109-01	**2.7**	0.030	0.64	0.56
MW-1	02/23/12	NS	NS	NS	NS	NS
MW-1	05/22/12	12051130-01	**2.2**	<0.020	0.54	0.19
MW-1	09/12/12	NS	NS	NS	NS	NS
MW-1	11/19/12	NS	NS	NS	NS	NS
MW-1	02/28/13	NS	NS	NS	NS	NS
MW-1	06/13/13	L641626-01	**1.7**	0.17	0.69	0.61
MW-1	09/10/13	NS	NS	NS	NS	NS
MW-1	12/11/13	NS	NS	NS	NS	NS
MW-1	03/06/14	NS	NS	NS	NS	NS
MW-1	06/06/14	L703463-01	**2.6**	0.24 J	0.52	0.68
MW-1	06/15/15	L772316-01	**0.48**	<0.050	0.26	0.24
MW-1	05/18/16	L836880-01	**0.336**	<0.005	0.269	0.184
MW-1	09/20/16	NS	NS	NS	NS	NS
MW-1	05/10/17	L908975-01	**0.877**	0.00738	0.357	0.173
MW-1	06/05/18	L1000318-01	**0.0344**	<0.001	0.262	0.0208
MW-1	05/08/19	L1098116-01	**0.0314**	0.00620	0.168	<0.0150
MW-2	03/28/06	T13037-1	**0.243**	0.00750	0.04570	0.09390
MW-2	06/15/06	T13863-1	**0.333**	0.00330 J	0.01960	0.01040
MW-2	09/12/06	T14672-1	**0.178**	<0.00020	0.01780	0.00940
MW-2	12/06/06	T15622-1	**0.21400** [a]	<0.00020	0.01850	0.00800
MW-2	02/28/07	T16496-1	**0.18600** [a]	<0.00020	0.01410	0.00150
MW-2	05/30/07	T17641-1	**0.27000** [a]	<0.00023	0.01880	0.00290
MW-2	09/07/07	T18808-1	0.00210	<0.00023	<0.00035	0.00680
MW-2	11/13/07	T19744-1	<0.0005	<0.0005	<0.0005	<0.001
MW-2	02/28/08	T21043-1	<0.00021	<0.00023	<0.00035	0.00150 J
MW-2	05/20/08	T22267-2	**0.27800** [a]	<0.00023	0.03200	0.00069 J
MW-2	08/20/08	T23512-1	**0.01080**	<0.0005	<0.0005	<0.001
MW-2	11/20/08	180209	**0.176**	<0.00100	0.00630	<0.00100
MW-2	02/18/09	9021907	**0.117**	<0.00100	<0.00100	<0.00100
MW-2	05/20/09	9052216	**0.0357**	<0.000188	0.00050 J	<0.000163
MW-2	08/27/09	9083116	**0.0172**	<0.000188	0.0011	<0.000163
MW-2	11/18/09	215423	0.0007 J	<0.000332	<0.00023	<0.000143
MW-2	02/09/10	222042	<0.000371	<0.000400	0.0012	<0.000379
MW-2	05/12/10	1005477-02	<0.001	<0.001	0.0041	<0.003
MW-2	08/26/10	1008902-01	<0.001	<0.001	0.0033	<0.003
MW-2	11/18/10	1011750-01	<0.001	<0.001	0.0036	<0.003
MW-2	02/23/11	1102702-01	<0.001	<0.001	0.0060	<0.003
MW-2	06/02/11	1106118-01	<0.001	<0.001	0.0090	<0.003
MW-2	08/30/11	11081012-01	<0.001	<0.001	0.0061	<0.003
MW-2	11/29/11	1111902-01	<0.001	<0.001	0.0015	<0.003
MW-2	02/23/12	120873-01	<0.001	<0.001	0.0018	<0.003
MW-2	05/23/12	12051130-02	<0.001	<0.001	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-2	09/12/12	1209473-01	<0.001	<0.001	<0.001	<0.003
MW-2	11/19/12	1211764-01	<0.001	<0.001	<0.001	<0.003
MW-2	02/28/13	L622670-01	<0.001	<0.005	<0.001	<0.003
MW-2	06/13/13	L641626-01	<0.001	<0.005	<0.001	<0.003
MW-2	09/10/13	L656792-01	<0.001	<0.005	<0.001	<0.003
MW-2	12/11/13	L674081-01	<0.001	<0.005	<0.001	<0.003
MW-2	03/06/14	L686979-01	<0.001	<0.005	<0.001	<0.003
MW-2	06/05/14	L703463-02	<0.001	<0.005	<0.001	<0.003
MW-2	09/16/14	L722829-01	<0.001	<0.005	<0.001	<0.003
MW-2	11/13/14	L733920-01	<0.001	<0.005	<0.001	<0.003
MW-2	02/26/15	L750804-01	<0.001	<0.005	<0.001	<0.003
MW-2	06/15/15	L772316-02	<0.001	<0.005	<0.001	<0.003
MW-2	08/27/15	L785927-01	<0.001	<0.005	<0.001	<0.003
MW-2	11/18/15	L802567-01	<0.001	<0.005	<0.001	<0.003
MW-2	03/09/16	L822606-01	<0.001	<0.005	<0.001	<0.003
MW-2	05/18/16	L836880-02	<0.001	<0.005	<0.001	<0.003
MW-2	09/20/16	L860932-01	<0.001	<0.005	<0.001	<0.003
MW-2	03/01/17	L893442-01	<0.001	<0.001	<0.001	<0.003
MW-2	05/10/17	L908975-02	<0.001	<0.001	<0.001	<0.003
MW-2	09/15/17	L936888-01	<0.001	<0.005	<0.001	<0.003
MW-2	11/29/17	L954386-01	<0.001	<0.001	<0.001	<0.003
MW-2	03/07/18	L976400-01	<0.001	<0.001	<0.001	<0.003
MW-2	06/05/18	L1000318-02	<0.001	<0.001	<0.001	<0.003
MW-2	09/06/18	L1023654-01	<0.001	<0.001	<0.001	<0.003
MW-2	11/28/18	L1048598-01	<0.001	<0.001	<0.001	<0.003
MW-2	02/13/19	L1070835-01	<0.001	<0.001	<0.001	<0.003
MW-2	05/08/19	L1098116-02	<0.001	0.00297	<0.001	<0.003
MW-2	08/22/19	L1132371-01	<0.001	<0.001	<0.001	<0.003
MW-2	11/06/19	L1158978-01	<0.001	<0.001	<0.001	<0.003
MW-3	03/28/06	T13037-2	**0.501**	0.07580	0.05180	0.06270
MW-3	06/15/06	T13863-2	**0.432**	<0.0018	0.06030	0.04530
MW-3	09/12/06	T14672-2	**0.0612**	<0.00020	0.00490	<0.00036
MW-3	12/06/06	T15622-2	**0.19000** [a]	0.00110	0.02470	0.00360
MW-3	02/28/07	T16496-2	**0.05830**	0.00054 J	0.00520	0.00360
MW-3	05/30/07	T17641-2	**0.05620**	<0.00023	0.00410	<0.00055
MW-3	09/07/07	T18808-2	<0.00021	<0.00023	0.00790	<0.00055
MW-3	11/13/07	T19744-2	<0.0005	<0.0005	<0.0005	<0.001
MW-3	02/28/08	T21043-2	<0.00021	<0.00023	<0.00035	<0.00055
MW-3	05/20/08	T22267-3	**0.74800** [a]	0.00030 J	0.06190	0.00084 J
MW-3	08/20/08	T23512-2	**0.0459**	<0.0005	0.0021	<0.001
MW-3	11/20/08	180210	**0.0575**	0.0268	0.0152	0.0875
MW-3	02/18/09	9021907	0.0070	0.0025	<0.00100	<0.00100
MW-3	05/20/09	9052216	**0.1660**	0.1820	0.1050	0.2120

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-3	08/27/09	9083116	0.0096	0.0248	0.0123	0.0189
MW-3	11/18/09	215424	0.0096	0.00700	0.0115	0.0184
MW-3	02/09/10	222043	<0.000371	<0.000400	0.0011	0.0007 J
MW-3	05/12/10	1005477-03	**0.0170**	<0.001	0.027	0.016
MW-3	08/26/10	1008902-02	0.0084	<0.001	0.0360	0.0250
MW-3	11/18/10	1011750-02	0.0030	<0.001	0.0046	0.00340
MW-3	02/23/11	1102702-02	0.0029	<0.001	0.0059	0.0047
MW-3	06/02/11	1106118-02	**0.0130**	<0.001	0.015	0.015
MW-3	08/30/11	11081012-02	0.0016	<0.001	0.0054	0.0071
MW-3	11/29/11	1111902-02	0.0041	<0.001	0.0079	0.014
MW-3	02/23/12	1202873-02	0.0024	<0.001	0.0080	0.0015
MW-3	05/23/12	12051130-03	**0.022**	0.0031	0.09	0.14
MW-3	09/12/12	1209473-02	**1.4**	<0.001	**3.0**	<0.003
MW-3	11/19/12	1209473-02	**0.51 J**	<0.001	**0.85 J**	**1.1 J**
MW-3	02/28/13	L622670-02	<0.001	<0.005	<0.001	<0.003
MW-3	06/12/13	L641626-03	**0.04**	0.12	0.077	0.18
MW-3	06/06/14	L703463-03	<0.001	<0.005	0.0034	0.01
MW-3	09/16/14	L722829-02	<0.001	<0.005	<0.001	<0.003
MW-3	06/15/15	L772316-03	<0.001	<0.005	<0.001	<0.003
MW-3	11/18/15	L802567-02	<0.001	<0.005	0.000569 J	<0.003
MW-3	03/09/16	L822606-02	<0.001	<0.005	<0.001	<0.003
MW-3	05/18/16	L836880-03	<0.001	<0.005	<0.001	<0.003
MW-3	09/20/16	L860932-02	<0.001	<0.005	<0.001	<0.003
MW-3	03/01/17	L893442-02	<0.001	<0.001	<0.001	<0.003
MW-3	05/10/17	L908975-03	<0.001	<0.005	<0.001	<0.003
MW-3	09/15/17	L936888-02	<0.001	<0.005	<0.001	<0.003
MW-3	11/29/17	L954386-02	<0.001	<0.001	<0.001	<0.003
MW-3	03/07/18	L976400-02	<0.001	<0.001	<0.001	<0.003
MW-3	06/05/18	L1000318-03	<0.001	<0.001	<0.001	<0.003
MW-3	09/06/18	L1023654-02	<0.001	<0.001	<0.001	<0.003
MW-3	11/28/18	L1048598-02	<0.001	<0.001	<0.001	<0.003
MW-3	02/13/19	L1070835-02	<0.001	<0.001	<0.001	<0.003
MW-3	05/08/19	L1098116-03	<0.001	0.00407	<0.001	<0.003
MW-3	08/22/19	L1132371-02	<0.001	<0.001	<0.001	<0.003
MW-3	11/06/19	L1158978-02	<0.001	<0.001	<0.001	<0.003
MW-4	03/28/06	T13037-3	<0.00038	<0.00036	<0.00035	<0.00072
MW-4	06/15/06	T13863-3	<0.00038	<0.00036	<0.00035	<0.00072
MW-4	09/12/06	T14672-3	<0.00035	<0.00020	<0.00033	<0.00036
MW-4	12/06/06	T15622-3	<0.00035	<0.00020	<0.00033	<0.00036
MW-4	02/28/07	T16496-3	<0.00035	<0.00020	<0.00033	<0.00036
MW-4	05/30/07	T17641-3	<0.00021	<0.00023	<0.00035	<0.00055
MW-4	09/07/07	T18808-3	<0.00021	<0.00023	<0.00035	<0.00055
MW-4	11/13/07	T19744-3	<0.0005	<0.0005	<0.0005	<0.001

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-4	02/28/08	T21043-3	<0.00021	<0.00023	<0.00035	<0.00055
MW-4	05/20/08	T22267-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-4	08/20/08	T23512-3	<0.0005	<0.0005	<0.0005	<0.001
MW-4	11/20/08	180211	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	02/18/09	9021907	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	05/20/09	9052216	<0.000149	<0.000188	<0.000178	<0.000163
MW-4	08/27/09	9083116	<0.000149	<0.000188	<0.000178	<0.000163
MW-4	11/18/09	215425	<0.000160	<0.000332	<0.000230	<0.000143
MW-4	02/09/10	222044	<0.000371	<0.000400	<0.000430	<0.000379
MW-4	05/12/10	1005477-04	<0.001	<0.001	<0.001	<0.003
MW-4	08/26/10	1008902-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/18/10	1011750-03	<0.001	<0.001	<0.001	<0.003
MW-4	02/23/11	1102702-03	<0.001	<0.001	<0.001	<0.003
MW-4	06/02/11	1106118-03	<0.001	<0.001	<0.001	<0.003
MW-4	08/30/11	11081012-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/29/11	1111902-03	<0.001	<0.001	<0.001	<0.003
MW-4	02/23/12	1202873-03	<0.0010	<0.0010	<0.0010	<0.003
MW-4	05/23/12	12051130-04	<0.001	<0.001	<0.001	<0.003
MW-4	09/12/12	1209473-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/19/12	1211764-03	<0.001	<0.001	<0.001	<0.003
MW-4	02/28/13	L622670-03	<0.001	<0.005	<0.001	<0.003
MW-4	06/12/13	L641626-04	<0.001	<0.005	<0.001	<0.003
MW-4	09/10/13	L656792-02	<0.001	<0.005	<0.001	<0.003
MW-4	12/11/13	L674081-02	<0.001	<0.005	<0.001	<0.003
MW-4	03/06/14	L686979-02	<0.001	<0.005	<0.001	<0.003
MW-4	06/04/14	L703463-04	<0.001	<0.005	<0.001	<0.003
MW-4	09/16/14	L722829-03	<0.001	<0.005	<0.001	<0.003
MW-4	11/13/14	L733920-02	<0.001	<0.005	<0.001	<0.003
MW-4	02/26/15	L705804-02	<0.001	<0.005	<0.001	<0.003
MW-4	06/15/15	L772316-04	<0.001	<0.005	<0.001	<0.003
MW-4	08/27/15	L785927-02	<0.001	<0.005	<0.001	<0.003
MW-4	11/18/15	L802567-03	<0.001	<0.005	<0.001	<0.003
MW-4	03/09/16	L822606-03	<0.001	<0.005	<0.001	<0.003
MW-4	05/18/16	L836880-04	<0.001	<0.005	<0.001	<0.003
MW-4	09/20/16	L860932-03	<0.001	<0.005	<0.001	<0.003
MW-4	03/01/17	L893442-03	<0.001	<0.001	<0.001	<0.003
MW-4	05/10/17	L908975-04	<0.001	<0.005	<0.001	<0.003
MW-4	09/15/17	L936888-03	<0.001	<0.005	<0.001	<0.003
MW-4	11/29/17	L954386-03	<0.001	<0.001	<0.001	<0.003
MW-4	03/07/18	L976400-03	<0.001	<0.001	<0.001	<0.003
MW-4	06/05/18	L1000318-04	<0.001	<0.001	<0.001	<0.003
MW-4	09/06/18	L1023654-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/28/18	L1048598-03	<0.001	<0.001	<0.001	<0.003
MW-4	02/13/19	L1070835-03	<0.001	<0.001	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-4	05/08/19	L1098116-04	<0.001	<0.001	<0.001	<0.003
MW-4	08/22/19	L1132371-03	<0.001	<0.001	<0.001	<0.003
MW-4	11/06/19	L1158978-03	<0.001	<0.001	<0.001	<0.003
MW-5	03/28/06	T13037-4	<0.00038	<0.00036	<0.00035	<0.00072
MW-5	06/15/06	T13863-4	<0.00038	<0.00036	<0.00035	<0.00072
MW-5	09/12/06	T14672-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	12/06/06	T15622-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	02/28/07	T16496-4	<0.00035	<0.00020	<0.00033	<0.00036
MW-5	05/30/07	T17641-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	09/07/07	T18808-4	<0.00021	<0.00023	<0.00035	<0.00055
MW-5	11/13/07	T19744-4	<0.0005	<0.0005	<0.0005	<0.001
MW-5	02/28/08	T21043-4	<0.00021	<0.00023	0.00210	<0.00055
MW-5	05/20/08	T22267-5	0.00120	<0.00023	<0.00035	<0.00055
MW-5	08/20/08	T23512-4	<0.0005	<0.0005	<0.0005	<0.001
MW-5	11/20/08	180212	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	02/18/09	9021907	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	05/20/09	9052216	<0.000149	<0.000188	<0.000178	<0.000163
MW-5	08/27/09	9083116	<0.000149	<0.000188	<0.000178	<0.000163
MW-5	11/18/09	215426	<0.000160	<0.000332	<0.000230	<0.000143
MW-5	02/09/10	222045	<0.000208	<0.000208	0.0010	0.0013
MW-5	05/12/10	1005477-05	<0.001	<0.001	0.0018	<0.003
MW-5	08/26/10	1008902-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/18/10	1011750-04	<0.001	<0.001	<0.001	<0.003
MW-5	02/23/11	1102702-04	<0.001	<0.001	<0.001	<0.003
MW-5	06/02/11	1106118-04	<0.001	<0.001	<0.001	<0.003
MW-5	08/30/11	11081012-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/29/11	1111902-04	<0.001	<0.001	<0.001	<0.003
MW-5	02/23/12	1202873-04	<0.0010	<0.0010	<0.0010	<0.003
MW-5	05/23/12	12051130-05	<0.001	<0.001	<0.001	<0.003
MW-5	09/12/12	1209473-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/19/12	1211764-04	<0.001	<0.001	<0.001	<0.003
MW-5	02/28/13	L622670-04	<0.001	<0.005	<0.001	<0.003
MW-5	06/12/13	L641626-05	<0.001	<0.005	<0.001	<0.003
MW-5	09/10/13	L656792-03	<0.001	<0.005	<0.001	<0.003
MW-5	12/11/13	L674081-03	<0.001	<0.005	<0.001	<0.003
MW-5	03/06/14	L686979-03	<0.001	<0.005	<0.001	<0.003
MW-5	06/04/14	L703463-05	<0.001	<0.005	<0.001	<0.003
MW-5	09/16/14	L722829-04	<0.001	<0.005	<0.001	<0.003
MW-5	11/13/14	L733920-03	<0.001	<0.005	<0.001	<0.003
MW-5	02/26/15	L750804-03	<0.001	<0.005	<0.001	<0.003
MW-5	06/15/15	L772316-05	<0.001	<0.005	<0.001	<0.003
MW-5	08/27/15	L785927-03	<0.001	<0.005	<0.001	<0.003
MW-5	11/18/15	L802567-04	<0.001	<0.005	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-5	03/09/16	L822606-04	<0.001	<0.005	<0.001	<0.003
MW-5	05/18/16	L836880-05	<0.001	<0.005	<0.001	<0.003
MW-5	09/20/16	L860932-04	<0.001	<0.005	<0.001	<0.003
MW-5	03/01/17	L893442-04	<0.001	<0.001	<0.001	<0.003
MW-5	05/10/17	L908975-05	<0.001	<0.005	<0.001	<0.003
MW-5	09/15/17	L936888-04	<0.001	<0.005	<0.001	<0.003
MW-5	11/29/17	L954386-04	<0.001	<0.001	<0.001	<0.003
MW-5	03/07/18	L976400-04	<0.001	<0.001	<0.001	<0.003
MW-5	06/05/18	L1000318-05	<0.001	<0.001	<0.001	<0.003
MW-5	09/06/18	L1023654-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/28/18	L1048598-04	<0.001	<0.001	<0.001	<0.003
MW-5	02/13/19	L1070835-04	<0.001	<0.001	<0.001	<0.003
MW-5	05/08/19	L1098116-05	<0.001	<0.001	<0.001	<0.003
MW-5	08/22/19	L1132371-04	<0.001	<0.001	<0.001	<0.003
MW-5	11/06/19	L1158978-04	<0.001	<0.001	<0.001	<0.003
MW-6	03/28/06	T13037-5	<0.00038	<0.00036	<0.00035	<0.00072
MW-6	06/15/06	T13863-5	<0.00038	<0.00036	<0.00035	<0.00072
MW-6	09/12/06	T14672-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	12/06/06	T15622-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	02/28/07	T16496-5	<0.00035	<0.00020	<0.00033	<0.00036
MW-6	05/30/07	T17641-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	09/07/07	T18808-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	11/13/07	T19744-5	<0.0005	<0.0005	<0.0005	<0.001
MW-6	02/28/08	T21043-5	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	05/20/08	T22267-8	<0.00021	<0.00023	<0.00035	<0.00055
MW-6	08/20/08	T23512-5	<0.0005	<0.0005	<0.0005	<0.001
MW-6	11/20/08	180213	<0.00100	<0.00100	<0.00100	<0.00100
MW-6	02/18/09	9021907	<0.00100	<0.00100	<0.00100	<0.00100
MW-6	05/20/09	9052216	<0.000149	<0.000188	<0.000178	0.0002 J
MW-6	08/27/09	9083116	<0.000149	<0.000188	<0.000178	<0.000163
MW-6	11/18/09	215427	<0.000160	<0.000332	<0.000230	<0.000143
MW-6	02/09/10	222046	<0.000208	<0.000208	<0.000303	<0.000326
MW-6	05/12/10	1005477-06	<0.001	<0.001	<0.001	<0.003
MW-6	08/26/10	1008902-05	<0.001	<0.001	<0.001	<0.003
MW-6	11/18/10	1011750-05	<0.001	<0.001	<0.001	<0.003
MW-6	02/23/11	1102702-05	<0.001	<0.001	<0.001	<0.003
MW-6	06/02/11	1106118-05	<0.001	<0.001	<0.001	<0.003
MW-6	08/30/11	11081012-05	<0.001	<0.001	<0.001	<0.003
MW-6	11/29/11	1111902-05	<0.001	<0.001	<0.001	<0.003
MW-6	02/23/12	1202873-05	<0.001	<0.001	<0.001	<0.003
MW-6	05/23/12	12051130-06	<0.001	<0.001	<0.001	<0.003
MW-6	09/12/12	1209473-05	<0.001	<0.001	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-6	11/19/12	1211764-05	<0.001	<0.001	<0.001	<0.003
MW-6	02/28/13	L622670-05	<0.001	<0.005	<0.001	<0.003
MW-6	06/12/13	L641626-06	<0.001	<0.005	<0.001	<0.003
MW-6	09/10/13	L656792-04	<0.001	<0.005	<0.001	<0.003
MW-6	12/11/13	L656792-04	<0.001	<0.005	<0.001	<0.003
MW-6	03/06/14	L686979-04	<0.001	<0.005	<0.001	<0.003
MW-6	06/04/14	L703463-06	<0.001	<0.005	<0.001	<0.003
MW-6	09/16/14	L722829-05	<0.001	<0.005	<0.001	<0.003
MW-6	11/13/14	L733920-04	<0.001	<0.005	<0.001	<0.003
MW-6	02/26/15	L750804-04	<0.001	<0.005	<0.001	<0.003
MW-6	06/15/15	L772316-06	<0.001	<0.005	<0.001	<0.003
MW-6	08/27/15	L785927-04	<0.001	<0.005	<0.001	<0.003
MW-6	11/18/15	L802567-05	<0.001	<0.005	<0.001	<0.003
MW-6	03/09/16	L822606-05	<0.001	<0.005	<0.001	<0.003
MW-6	05/18/16	L836880-06	<0.001	<0.005	<0.001	<0.003
MW-6	09/20/16	L860932-05	<0.001	<0.005	<0.001	<0.003
MW-6	03/01/17	L893442-05	<0.001	<0.001	<0.001	<0.003
MW-6	05/10/17	L908975-06	<0.001	<0.005	<0.001	<0.003
MW-6	09/15/17	L936888-05	<0.001	<0.005	<0.001	<0.003
MW-6	11/29/17	L954386-05	<0.001	<0.001	<0.001	<0.003
MW-6	03/07/18	L976400-05	<0.001	<0.001	<0.001	<0.003
MW-6	06/05/18	L1000318-06	<0.001	<0.001	<0.001	<0.003
MW-6	09/06/18	L1023654-05	<0.001	<0.001	<0.001	<0.003
MW-6	11/28/18	L1048598-05	<0.001	<0.001	<0.001	<0.003
MW-6	02/13/19	L1070835-05	<0.001	<0.001	<0.001	<0.003
MW-6	05/08/19	L1098116-06	<0.001	<0.001	<0.001	<0.003
MW-6	08/22/19	L1132371-05	<0.001	<0.001	<0.001	<0.003
MW-6	11/06/19	L1158978-05	<0.001	<0.001	<0.001	<0.003
MW-7	03/28/06	T13037-6	<0.00038	<0.00036	<0.00035	<0.00072
MW-7	06/15/06	T13863-6	<0.00038	<0.00036	<0.00035	<0.00072
MW-7	09/12/06	T14672-6	<0.00035	<0.00020	<0.00033	<0.00036
MW-7	12/06/06	T15622-6	<0.00035	<0.00020	<0.00033	<0.00036
MW-7	02/28/07	T16496-6	<0.00035	<0.00020	<0.00033	<0.00036
MW-7	05/30/07	T17641-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	09/07/07	T18808-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	11/13/07	T19744-6	<0.0005	<0.0005	<0.0005	<0.001
MW-7	02/28/08	T21043-6	<0.00021	<0.00023	<0.00035	<0.00055
MW-7	05/20/08	T22267-7	0.00650	<0.00023 *	0.00060 J*	<0.00055 *
MW-7	08/20/08	T23512-6	0.00110	<0.0005	<0.0005	<0.001
MW-7	11/20/08	180214	<0.00100	<0.00100	<0.00100	<0.00100
MW-7	02/18/09	187838	<0.00100	<0.00100	<0.00100	<0.00100
MW-7	05/20/09	9052216	<0.000149	<0.000188	<0.000178	<0.000163
MW-7	08/27/09	9083116	<0.000149	<0.000188	<0.000178	<0.000163

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-7	11/18/09	215428	<0.000160	<0.000332	<0.000230	<0.000143
MW-7	02/09/10	222047	<0.000208	<0.000208	<0.000303	<0.000326
MW-7	05/12/10	1005477-07	<0.001	<0.001	<0.001	<0.003
MW-7	08/26/10	1008902-06	<0.001	<0.001	<0.001	<0.003
MW-7	11/18/10	1011750-06	<0.001	<0.001	<0.001	<0.003
MW-7	02/23/11	1102702-06	<0.001	<0.001	<0.001	<0.003
MW-7	06/02/11	1106118-06	<0.001	<0.001	<0.001	<0.003
MW-7	08/30/11	11081012-06	<0.001	<0.001	<0.001	<0.003
MW-7	11/29/11	1111902-06	<0.001	<0.001	<0.001	<0.003
MW-7	02/23/12	1202873-06	<0.001	<0.001	<0.001	<0.003
MW-7	5/23/2012	12051130-07	<0.001	<0.001	<0.001	<0.003
MW-7	09/12/12	1209473-06	<0.001	<0.001	<0.001	<0.003
MW-7	11/19/12	1211764-06	<0.001	<0.001	<0.001	<0.003
MW-7	02/28/13	L622670-06	<0.001	<0.005	<0.001	<0.003
MW-7	06/12/13	L641626-07	<0.001	<0.005	<0.001	<0.003
MW-7	09/10/13	L656792-05	<0.001	<0.005	<0.001	<0.003
MW-7	12/11/13	L674081-05	<0.001	<0.005	<0.001	<0.003
MW-7	03/06/14	L686979-05	<0.001	<0.005	<0.001	<0.003
MW-7	06/05/14	L703463-07	<0.001	<0.005	<0.001	<0.003
MW-7	09/16/14	L7228209-06	<0.001	<0.005	<0.001	<0.003
MW-7	11/13/14	L733920-05	<0.001	<0.005	<0.001	<0.003
MW-7	02/26/15	L750804-05	<0.001	<0.005	<0.001	<0.003
MW-7	06/15/15	L772316-07	<0.001	<0.005	<0.001	<0.003
MW-7	08/27/15	L785927-05	<0.001	<0.005	<0.001	<0.003
MW-7	11/18/15	L802567-06	<0.001	<0.005	<0.001	<0.003
MW-7	03/09/16	L822606-06	<0.001	<0.005	<0.001	<0.003
MW-7	05/18/16	L836880-07	<0.001	<0.005	<0.001	<0.003
MW-7	09/20/16	L860932-06	<0.001	<0.005	<0.001	<0.003
MW-7	03/01/17	L893442-06	<0.001	<0.001	<0.001	<0.003
MW-7	05/10/17	L908975-07	<0.001	<0.005	<0.001	<0.003
MW-7	09/15/17	L936888-06	<0.001	<0.005	<0.001	<0.003
MW-7	11/29/17	L954386-06	<0.001	<0.001	<0.001	<0.003
MW-7	03/07/18	L976400-06	<0.001	<0.001	<0.001	<0.003
MW-7	06/05/18	L1000318-07	<0.001	<0.001	<0.001	<0.003
MW-7	09/06/18	L1023654-06	<0.001	<0.001	<0.001	<0.003
MW-7	11/28/18	L1048598-06	<0.001	<0.001	<0.001	<0.003
MW-8	05/12/10	1005477-08	<0.001	<0.001	<0.001	<0.003
MW-8	08/26/10	1008902-07	<0.001	<0.001	<0.001	<0.003
MW-8	11/18/10	1011750-07	<0.001	<0.001	<0.001	<0.003
MW-8	02/23/11	1102702-07	<0.001	<0.001	<0.001	<0.003
MW-8	06/02/11	1106118-07	<0.001	<0.001	<0.001	<0.003
MW-8	08/30/11	11081012-07	0.0020	<0.001	<0.001	<0.003
MW-8	11/29/11	1111902-07	<0.001	<0.001	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-8	02/23/12	1202873-07	0.0011	<0.001	<0.001	<0.003
MW-8	05/23/12	12051130-08	**0.030**	<0.001	0.0061	<0.003
MW-8	09/12/12	1209473-07	<0.001	<0.001	<0.001	<0.003
MW-8	11/19/12	1211764-07	<0.001	<0.001	<0.001	<0.003
MW-8	02/28/13	L622670-07	<0.001	<0.005	<0.001	<0.003
MW-8	06/12/13	L641626-08	<0.001	<0.005	<0.001	<0.003
MW-8	09/10/13	L656792-06	<0.001	<0.005	<0.001	<0.003
MW-8	12/11/13	L674081-06	<0.001	<0.005	<0.001	<0.003
MW-8	03/06/14	L686979-06	<0.001	<0.005	<0.001	<0.003
MW-8	06/04/14	L703463-09	<0.001	<0.005	<0.001	<0.003
MW-8	09/16/14	L722829-07	<0.001	<0.005	<0.001	<0.003
MW-8	11/13/14	L733920-06	<0.001	<0.005	<0.001	0.0013 J
MW-8	02/26/15	L750804-06	<0.001	<0.005	0.0019	0.017
MW-8	06/15/15	L772316-08	<0.001	<0.005	<0.001	0.0016 J
MW-8	08/27/15	L785927-06	<0.001	<0.005	<0.001	<0.003
MW-8	11/18/15	L802567-07	<0.001	<0.005	<0.001	<0.003
MW-8	03/09/16	L822606-07	<0.001	<0.005	<0.001	<0.003
MW-8	05/18/16	L836880-08	<0.001	<0.005	<0.001	<0.003
MW-8	09/20/16	L860932-07	<0.001	<0.005	<0.001	<0.003
MW-8	03/01/17	L893442-07	0.000375 J	<0.001	0.000591 J	0.00119 J
MW-8	05/10/17	L908975-08	<0.001	<0.005	<0.001	<0.003
MW-8	09/15/17	L936888-07	<0.001	<0.005	<0.001	<0.003
MW-8	11/29/17	L954386-07	<0.001	<0.001	<0.001	<0.003
MW-8	03/07/18	L976400-07	<0.001	<0.001	<0.001	<0.003
MW-8	06/05/18	L1000318-08	<0.001	<0.001	<0.001	<0.003
MW-8	09/06/18	L1023654-07	<0.001	<0.001	<0.001	<0.003
MW-8	11/28/18	L1048598-07	<0.001	<0.001	<0.001	<0.003
MW-9	12/11/13	L674081-07	<0.001	<0.005	<0.001	<0.003
MW-9	03/06/14	L686979-07	<0.0010	<0.005	<0.001	<0.003
MW-9	06/04/14	L703463-09	<0.0010	<0.005	<0.001	<0.003
MW-9	09/16/14	L728829-08	<0.0010	<0.005	<0.001	<0.003
MW-9	11/13/14	L733920-07	<0.0010	<0.005	<0.001	<0.003
MW-9	02/26/15	L750804-07	<0.0010	<0.005	<0.001	<0.003
MW-9	06/15/15	L772316-09	<0.0010	<0.005	<0.001	<0.003
MW-9	08/27/15	L785927-07	<0.0010	<0.005	<0.001	<0.003
MW-9	11/18/15	L802567-08	<0.0010	<0.005	<0.001	<0.003
MW-9	03/09/16	L822606-08	<0.0010	<0.005	<0.001	<0.003
MW-9	05/18/16	L836880-09	<0.0010	<0.005	<0.001	<0.003
MW-9	09/20/16	L860932-08	<0.001	<0.005	<0.001	<0.003
MW-9	03/01/17	L893442-08	<0.001	<0.001	<0.001	<0.003
MW-9	05/10/17	L908975-08	<0.001	<0.005	<0.001	<0.003
MW-9	09/15/17	L936888-07	<0.001	<0.005	<0.001	<0.003
MW-9	11/29/17	L954386-07	<0.001	<0.001	<0.001	<0.003

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
MW-9	03/07/18	L976400-08	<0.001	<0.001	<0.001	<0.003
MW-9	06/05/18	L1000318-09	<0.001	<0.001	<0.001	<0.003
MW-9	09/06/18	L1023654-08	<0.001	<0.001	<0.001	<0.003
MW-9	11/28/18	L1048598-08	<0.001	<0.001	<0.001	<0.003
RW-1	06/02/11	1106109-02	**0.150**	0.011	0.069	0.100
RW-1	05/23/12	12051130-09	**0.084**	0.0035	0.039	0.049
RW-1	06/12/13	L641626-09	**0.56**	0.18	0.17	0.35
RW-1	06/04/14	L703463-10	**0.1**	0.08	0.17	0.32
RW-1	06/15/15	L772316-10	**0.15**	0.073	0.1	0.19
RW-1	05/18/16	L836880-10	**0.017**	0.00942	0.00733	0.0124
RW-1	05/10/17	L908975-10	**0.201**	0.145	0.111	0.245
RW-1	06/05/18	L1000318-10	**0.0172**	<0.001	0.0274	0.0353
RW-2	06/02/11	1106109-03	0.0089	0.0013	0.0069	0.013
RW-2	05/23/12	12051130-10	**0.020**	0.015	0.081	0.22
RW-2	06/12/13	L641626-10	**0.038**	0.028	0.12	0.17
RW-2	06/06/14	L703463-11	**0.042**	0.033 J	0.042	0.11
RW-2	06/15/15	L772316-11	**0.073**	0.0099 J	0.093	0.18
RW-2	05/18/16	L836880-11	**0.0752**	0.0286	0.0471	0.1
RW-2	05/10/17	L908975-11	**0.234**	0.026	0.132	0.325
RW-2	03/07/18	L976400-09	0.00223	<0.001	0.00553	0.00586
RW-2	06/05/18	L1000318-11	**0.0181**	<0.001	0.0124	0.0237
RW-3	06/02/11	1106109-04	**1.0**	0.01	0.20	0.280
RW-3	05/23/12	12051130-11	**0.89**	<0.010	0.21	**0.26**
RW-3	06/04/14	L703463-12	**1.6**	0.62	0.49	0.91
RW-3	06/15/15	L772316-12	**0.013**	0.0019 J	0.012	0.02
RW-3	05/18/16	L836880-12	**0.0302**	0.00123 J	0.0183	0.0259
RW-3	05/10/17	L908975-12	**0.0358**	0.0259	0.0521	0.0673
RW-3	06/05/18	L1000318-12	0.00434	<0.001	0.04	0.012
RW-3	09/06/18	L1023654-09	0.00435	<0.001	0.048	0.0279
RW-4	06/02/11	1106109-05	**0.1700**	0.22	0.27	**0.630**
RW-4	05/23/12	12051130-12	**0.060**	0.0051	0.089	0.19
RW-4	06/12/13	L641626-12	**2.4**	0.22	0.59	**1.1**
RW-4	06/04/14	L703463-13	**0.75**	0.17 J	0.46	0.9
RW-4	06/15/15	L772316-13	**0.1**	<0.005	0.065	0.12
RW-4	05/18/16	L836880-13	**0.389**	0.00303 J	0.301	0.327
RW-4	05/10/17	L908975-13	**0.0982**	0.00514	0.19	0.112
RW-4	03/07/18	L976400-10	0.00354	<0.001	0.162	0.0441
RW-4	06/05/18	L1000318-13	0.00757	<0.001	0.0416	0.0296
RW-4	11/28/18	L1048598-09	0.00407	<0.001	0.176	0.0119

TABLE 4
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Well Number	Sample Date	Sample ID	SW 846-8021B			
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
			NMOCD Remediation Criteria			
			0.01	0.75	0.75	0.62
RW-5	06/02/11	1106109-06	**0.0280**	0.0066	0.0390	0.044
RW-5	05/23/12	12051130-13	**0.017**	0.011	0.031	0.033
RW-5	06/12/13	L641626-13	**3.7**	**2.9**	**0.88**	**1.9**
RW-5	06/04/14	L703463-14	**0.17**	0.012 J	0.064	0.093
RW-5	06/15/15	L772316-14	**0.17**	0.048 J	0.11	0.18
RW-5	05/18/16	L836880-14	0.00405	0.00327 J	0.00622	0.00942
RW-5	05/10/17	L908975-14	**0.0123**	0.00841	0.0513	0.0401
RW-5	03/07/18	L976400-11	0.00364	<0.001	0.0563	0.0146
RW-5	06/05/18	L1000318-14	0.00117	<0.001	0.0243	0.0049
RW-5	09/06/18	L1023654-10	<0.001	<0.001	0.00846	<0.003
RW-5	11/28/18	L1048598-10	<0.001	<0.001	0.011	<0.003
IW-1	06/04/14	L703463-15	**1.5**	**1.6** J	**0.9**	**1.8**
IW-1	06/15/15	L772316-15	**0.22**	0.11 J	0.062	0.12 J
IW-1	05/18/16	L836880-15	**0.174**	0.00443 J	0.0324	0.0318 J
IW-1	05/11/17	L908975-15	**0.712**	0.0693	0.182	0.329
IW-1	03/07/18	L976400-12	**0.178**	0.00364	0.0718	0.0846
IW-1	06/05/18	L1000318-15	**0.360**	<0.005	0.216	0.315
IW-1	09/06/18	L1023654-11	**0.175**	<0.001	0.108	0.0698
IW-2	06/04/14	L703463-16	**1.00**	0.38	0.38	0.78
IW-2	06/15/15	L772316-16	**0.43**	0.13	0.14	0.28
IW-2	05/18/16	L836880-16	0.0025	<0.005	0.00205	0.00205 J
IW-2	05/11/17	L908975-16	**0.138**	0.00622 J	0.0505	0.0518
IW-2	03/07/18	L976400-13	**0.0494**	<0.001	0.0261	0.0129
IW-2	06/05/18	L1000318-16	**0.0576**	<0.001	0.0588	0.0464
IW-2	11/28/18	L1048598-11	**0.277**	<0.001	0.213	0.0707
IW-3	06/04/14	L703463-17	**0.26**	0.25	0.19	0.4
IW-3	06/15/15	L772316-17	**0.12**	0.046	0.037	0.093
IW-3	05/18/16	L836880-17	**0.0319**	0.0117	0.00489	0.0143
IW-3	05/11/17	L908975-17	**0.862**	0.883	0.414	0.811
IW-3	03/07/18	L976400-14	**0.137**	0.119	0.084	0.163
IW-3	03/07/18	L976400-14	**0.137**	0.119	0.084	0.163
IW-3	06/05/18	L1000318-17	**1.1**	0.63	0.376	**0.800**

NMOCD: New Mexico Oil Conservation Division
Exceedences of NMOCD Remediation Criteria are shown in **bold**
J: Analyte detected below method detection limit (MDL but above sample detection limit (SDL)
[a] = Results from run 2 (dilution factor = 5)
* Values reported from run 2 as carry over was reported in run 1

TABLE 5
PAH Groundwater Analytical Results
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Monitoring Well	Sample Date	Lab Report #	Naphthalene	Acenaphthylene	Acenaphthene	Flourene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]-anthracene	Chrysene	Benzo[b]-fluoranthene	Benzo[a]-pyrene	Dibenzofuran	Dibenz[a,h]-anthracene	Benzo[g,h,i]-perylene	Benzo(k)fluoranthene	1-Methylnaphthalene	2-Methylnaphthalene	Total methylnaphthalene	TPH-GRO (C6-C10)	TPH (C10-C28)	TPH (C28-C30)
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(mg/L)	(mg/L)
Other regulatory limits (Tap Water*)			**0.03**		**0.365**	**0.243**	**0.0091**	**1.1**	**1.83**	**1.46**	**0.183**	**0.00091**	**0.0291**	**0.00091**	**0.0007****		**0.091**			**9.1**			***		
MW-1	5/20/2008	T22301-1	**0.15**	<0.016	<0.015	0.0355 J	<0.024	0.0397 J	<0.18	<0.016	<0.011	<0.014	<0.013	<0.0015	<0.016	NA	<0.013	<0.025	<0.016	NA	0.0285	0.0285	41.5	137	NA
MW-1	5/20/2009	9052216	0.026	<0.0000717	<0.000133	0.00202	<0.0000812	0.00268	<0.0000819	<0.0000892	<0.0000465	<0.0000307	<0.0000926	<0.000064	<0.0000513	0.00303	<0.0000566	<0.0000637	<0.0000776	0.0244	0.0201	**0.0445**	6.82	17.8	NA
MW-1	5/12/2010	1005477-01	**0.042**	0.00056	0.0012	0.0021	<0.0002	0.004	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	31	35	6.4
MW-1	5/23/2012	12051130-01	**0.045**	0.000292	0.000267	0.002	<0.0000979	0.00335	<0.0000979	0.00200	0.000108	<0.0000979	<0.0000979	<0.0000979	<0.0000979	NA	<0.0000979	<0.0000979	<0.0000979	NA	NA	NA	NA	NA	NA
MW-1	6/13/2013	L641626-01	**0.081**	0.0014	0.0029	0.0099	<0.000015	0.0017	0.0027	0.00057	0.0014	<0.000012	<0.00043	<0.000014	<0.000012	0.014	<0.000004	<0.000011	0.00014	0.011	0.011	NA	NA	NA	NA
MW-1	6/6/2014	L703463-01	**0.041**	0.0035	0.00078	0.003	<0.000050	0.0038	0.00078	<0.000050	0.00022	<0.000050	0.00013	<0.000050	0.00091	0.0048	<0.000050	0.000017 J	<0.000050	0.042	0.034	0.076	NA	NA	NA
MW-1	6/15/2015	L772316-01	**0.057**	0.00047	0.001	0.0034	<0.000050	0.0046	0.00071	<0.000050	0.00035	0.00024	0.00018	<0.000050	0.000087	0.0055	<0.000050	0.00002 J	<0.000050	0.055	0.052	0.107	NA	NA	NA
MW-1	5/18/2016	L836880-01	0.0194	0.000109	0.000259	0.00108	<0.000050	0.00104	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00158	<0.000050	<0.000050	<0.000050	0.015	0.011	0.026	NA	NA	NA
MW-1	5/10/2017	L908975-01	**0.043**	0.0000927	0.000211	0.000773	<0.000050	0.000662	<0.000050	<0.000050	0.0000276 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00142	<0.000050	0.00000361 J	<0.000050	0.0251	0.0185	0.0436	NA	NA	NA
MW-1	6/1/2018	L1000318-01	0.021	<0.000050	0.000227	0.000915	<0.000050	0.000673	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00172	<0.000050	<0.000050	<0.000050	0.0166	0.0115	0.0281	NA	NA	NA
MW-1	5/8/2019	L1098116-01	0.0264	<0.000050	0.000263	0.00128	<0.000050	0.00104	<0.000050	<0.000050	<0.000050	0.0000611	<0.000050	<0.000050	<0.000050	0.00197	<0.000050	<0.000050	<0.000050	0.0274	0.0195	0.0469	NA	NA	NA
MW-2	12/7/2011	1112251-01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
MW-2	5/18/2016	L836880-02	0.0000463 BJ	<0.000050	<0.000050	<0.000050	<0.000050	0.00977 J	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000381 J	<0.000050	<0.000050	<0.000050	0.0000143 J	0.0000166 J	0.0000309	NA	NA	NA
MW-2	5/10/2017	L908975-02	0.000052 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000258 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-3	12/7/2011	1112251-02	0.00023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
MW-3	6/12/2013	L641626-03	0.0000093	0.000053	0.00012	0.000039	<0.000015	0.00042	<0.0000076	<0.000016	<0.000012	<0.000012	<0.000011	<0.000014	<0.000012	0.0007	<0.000004	<0.000011	<0.000014	0.0077	0.0076	NA	NA	NA	NA
MW-3	6/6/2014	L703463-03	0.000092	0.000036	0.00018	0.00036	<0.000050	0.00044	0.000014	<0.000050	0.000028	<0.000050	0.000017	<0.000050	<0.000050	0.052	<0.000050	<0.000050	<0.000050	0.0028	0.0015	0.0043	NA	NA	NA
MW-3	5/18/2016	L836880-03	0.0000644 BJ	<0.000050	0.0000167 J	0.0000183 J	<0.000050	0.000031 J	<0.000050	<0.000050	0.0000126 J	<0.000050	<0.000050	**0.00286**	<0.000050	0.0000275 J	<0.000050	<0.000050	<0.000050	0.0000716 J	0.0000262 J	0.0000978	NA	NA	NA
MW-3	5/10/2017	L908975-03	0.000066 BJ	<0.000050	<0.000050	0.0000129 J	<0.000050	0.0000167 J	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.0000151 BJ	<0.000050	0.00234 J	<0.000050	0.0000109 J	<0.000250	0.0000109	NA	NA	NA
MW-4	5/18/2016	L836880-04	0.0000214 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.0000512 J	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-4	5/10/2017	L908975-04	0.0000449 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.0000050	<0.000050	<0.000050	<0.000050	0.00000157 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-5	5/18/2016	L836880-05	0.0000268 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000129 J	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-5	5/10/2017	L908975-05	0.0000695 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000217 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-6	5/18/2016	L836880-06	0.0000288 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-6	5/10/2017	L908975-06	0.0000496 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000168 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-7	5/18/2016	L836880-07	0.0000436 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000292 J	<0.000050	<0.000050	<0.000050	0.0000114 J	0.0000158 J	0.0000272	NA	NA	NA
MW-7	5/10/2017	L908975-07	0.0000909 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000247 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	<0.000250	NA	NA	NA
MW-8	12/7/2011	111251-03	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	NA	NA	NA
MW-8	6/12/2013	L641626-08	<0.000020	<0.0068	<0.0076	<0.0085	<0.000015	<0.0082	<0.0076	<0.000016	<0.000012	<0.000012	<0.000011	<0.000014	<0.000012	0.0000071	<0.000004	<0.000011	<0.000014	0.0000094	<0.000009	0.0000094	NA	NA	NA
MW-8	6/15/2015	L772316-08	0.00064	<0.000050	0.000029 J	0.00011	<0.000050	0.000095	<0.000050	<0.000050	0.000012 J	0.000012 J	<0.000050	<0.000050	<0.000050	0.00014	<0.000050	<0.000050	<0.000050	0.00092	0.00069	0.00161	NA	NA	NA
MW-8	5/18/2016	L836880-08	0.000119 BJ	<0.000050	0.0000204 J	0.0000734	<0.000050	0.0000771	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00015	<0.000050	<0.000050	<0.000050	0.000215 J	0.000195 J	0.00041	NA	NA	NA
MW-8	5/10/2017	L908975-08	0.000109 BJ	<0.000050	0.0000153 J	0.0000709	<0.000050	0.0000824	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000182	<0.000050	<0.000050	<0.000050	0.0000867 J	0.0000757 J	0.0001624	NA	NA	NA
MW-9	6/4/2014	L703463-09	<0.000025	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	NA	NA	NA	NA
MW-9	5/18/2016	L836880-09	0.0000472 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000136 J	<0.000050	<0.000050	<0.000050	0.000011 J	0.0000227 J	0.0000337	NA	NA	NA
MW-9	5/10/2017	L908975-09	0.0000505 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000168 BJ	<0.000050	<0.000050	<0.000050	<0.000250	<0.000250	NA	NA	NA	NA
RW-1	5/20/2008	T22301-2	0.0000345	<0.0016	<0.0015	0.0051	<0.0024	0.0041	<0.0018	<0.0016	<0.0011	<0.0014	<0.0013	<0.0015	<0.0016	NA	<0.0013	<0.0025	<0.0016	NA	0.0371	0.0371	15.6	9.76	
RW-1	5/20/2009	9052216	0.000541	<0.000756	<0.00104	<0.000560	<0.000856	0.0683	<0.000864	<0.000940	<0.000940	<0.000323	<0.975	<0.000674	<0.000541	0.0519	<0.000596	<0.000671	<0.000818	0.425	0.499	0.924	2.22	60.8	
RW-1	5/12/2010	1005477-09	0.000024	0.00043	<0.0002	0.0023	<0.0002	0.004	<0.0002	<0.0002	<0.0002	<0.0002	0.00049	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	80	120	21
RW-1	5/23/2012	12051130-09	0.0000044	<0.0000957	<0.0000957	0.00042	<0.0000957	0.00709	<0.0000957	<0.0000957	<0.0000957	<0.0000957	<0.0000957	<0.0000957	<0.0000957	NA	<0.0000957	<0.0000957	<0.0000957	NA	NA	NA	NA	NA	NA
RW-1	6/12/2013	L641626-09	0.00005	0.000049	0.00031	0.00019	<0.000015	0.00017	0.000049	0.000037	0.00003	0.000013	0.000011	0.000014	0.000012	0.000037	<0.000040	<0.000011	<0.000014	0.049	0.077	NA	NA	NA	NA
RW-1	6/4/2014	L703463-10	0.000019	0.00086	0.0008	<0.000050	<0.000050	0.0000045	0.00064	<0.000050	0.00037	<0.000050	<0.000050	<0.000050	0.00012	<0.050	<0.000050	<0.000050	<0.000050	0.03	0.029	0.059	NA	NA	NA
RW-1	6/15/2015	L772316-10	0.0000086	0.000094	0.0002	0.00094	<0.000050	0.00095	0.000078	<0.000050	0.000041 J	0.000034 J	0.000014 J	<0.000050	<0.000050	0.0000016	<0.000050	<0.000050	<0.000050	0.0085	0.0069	0.0154	NA	NA	NA
RW-1	5/18/2016	L836880-10	0.000731	<0.000050	0.000023 J	0.0000789	<0.000050	0.00068	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000141	<0.000050	<0.000050	<0.000050	0.000723	0.000302	0.001025	NA	NA	NA
RW-1	5/10/2017	L908975-10	0.0132	0.0001	0.000178	0.000727	<0.000050	0.000694	<0.000050	<0.000050	0.00002222 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00156	<0.000050	<0.000050	<0.000050	0.0109	0.00859	0.01949	NA	NA	NA
RW-1	6/1/2018	L1000318-10	0.00348	<0.000050	0.000117	0.000455	<0.000050	0.000465	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000966	<0.000050	<0.000050	<0.000050	0.00411	0.00339	0.0075	NA	NA	NA
RW-1	5/8/2019	L1098116-10	0.00285	<0.000050	0.000138	0.000625	<0.000050	0.000520	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00103	<0.000050	<0.000050	<0.000050	0.00423	0.00316	0.00739	NA	NA	NA
RW-2	5/20/2008	T22301-3	0.0000048 J	<0.0016	<0.0015	<0.0021	<0.0024	<0.0016	<0.0018	<0.00016	<0.0011	<0.00014	<0.0013	<0.0015	<0.0015	NA	<0.0013	<0.0025	<0.0016	NA	0.0043 J	0.0043	1.28	0.737	
RW-2	5/20/2009	9052216	0.0000257	<0.000355	<0.000657	<0.000263	<0.000402	0.0086	<0.000406	<0.000442	<0.000230	<0.000152	<0.000458	<0.000317	<0.000254	0.0067	<0.000280	<0.000315	<0.000384	0.0437	0.0442	0.0879	2.81	56.5	
RW-2	5/12/2010	1005477-10	0.000038	<0.0002	0.0011	0.00019	<0.0002	0.0047	0.0004	<0.0002	<0.0002	<0.0002	0.00049	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA		12	15	3.1
RW-2	5/23/2012	12051130-10	<0.0000965	0.000465	0.000375	0.00253	<0.0000965	0.0051	0.000464	0.000189	0.000226	<0.0000965	0.00057	<0.0965	<0.0965	NA	<0.0965	<0.0965	<0.0965	NA	NA	NA	NA	NA	NA
RW-2	6/12/2013	L641626-10	0.000013	0.000072	0.00017	0.0006	<0.000015	0.00061	0.0001	<0.000016	0.00005	<0.000012	0.000027	<0.000014	<0.000012	0.001	<0.000004	<0.000011	<0.000014	0.000012	0.000011	NA	NA	NA	NA
RW-2	6/6/2014	L703463-11	0.0000064	0.000059	0.00015	0.00056	<0.000050	0.00064	<0.000050	<0.000050	<0.000050	<0.000050	0.000029	<0.000050	<0.000050	0.001	<0.000050	<0.000050	<0.000050	0.00067	0.0059	0.00657	NA	NA	NA
RW-2	6/15/2015	L772316-11	0.0000019	0.00015	0.00061	0.0011	<0.000050	0.0014	0.00018	<0.000050	0.000061	0.00007	0.000067	<0.000050	<0.000050	0.0018	<0.000050	<0.000050	<0.000050	0.016	0.015	0.031	NA	NA	NA
RW-2	5/18/2016	L836880-11	0.00000516	0.0000345 J	0.0000742	0.000316	<0.000050	0.000284	<0.000050	<0.000050	0.0000224 J	<0.000050	<0.000050	<0.000050	<0.000050	0.000527	<0.000050	<0.000050	<0.000050	0.00443	0.0024	0.00683	NA	NA	NA
RW-2	5/10/2017	L908975-11	0.0000171	0.0000627	0.00012	0.000483	<0.000050	0.000461	<0.000050	<0.000050	0.0000144 J	<0.000050	<0.000050	0.00252 J	<0.000050	0.000877	<0.000050	<0.000050	<0.000050	0.0107	0.00825	0.01895	NA	NA	NA
RW-2	6/1/2018	L1000318-11	<0.000250	<0.000050	0.000087	0.000318	<0.000050	0.00033	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000438	<0.000050	<0.000050	<0.000050	0.00301	0.000443	0.003453	NA	NA	NA
RW-2	5/8/2019	L1098116-11	0.00615	<0.000050	0.000249	0.000999	<0.000050	0.000919	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00157	<0.000050	<0.000050	<0.000050	0.0141	0.00593	0.02003	NA	NA	NA
RW-3	5/20/2008	T22301-4	0.0000231	<0.0016	<0.0015	<0.0021	<0.0024	<0.0016	<0.0018	<0.0016	<0.0011	<0.0014	<0.0013	<0.0015	<0.0016	NA	<0.0013	<0.0025	<0.0016	NA	0.0201	0.0201	15.5	2.92	
RW-3	5/20/2009	9052216	0.00611	<0.0000703	<0.000130	0.00063	<0.0797	0.00077	<0.0000803	<0.0000875	<0.0000456	<0.0000301	<0.0000908	<0.0000627	<0.0000503	0.0008777	<0.0000555	<0.0000624	<0.0000761	0.00641	0.00423	0.01064	1.56 J	<0.876	
RW-3	5/12/2010	1005477-11	0.000015	<0.0002	<0.0002	0.00089	<0.0002	0.0011	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	3.9	3.1	<0.48
RW-3	5/23/2012	12051130-11	0.0000208	0.000129	0.000129	0.000793	<0.0000991	0.00107	<0.0000991	<0.0000991	<0.0000991	<0.0000991	<0.0000991	<0.0000991	<0.0000991	NA	<0.00000991	<0.0000991	<0.0000991	NA	NA	NA	NA	NA	NA
RW-3	6/12/2013	L641626-11	0.000025	0.00016	0.00036	0.0013	<0.000015	0.0018	0.00022	0.000047	0.0001	0.000013	0.000033	0.000014	0.00012	0.0022	<0.000004	<0.000011	<0.000014	0.022	0.022	NA	NA	NA	NA
RW-3	6/4/2014	L703463-12	0.000042	0.00000039	0.00091	0.003	<0.000050	0.0046	0.00076	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00013	0.0044	<0.000050	<0.000050	<0.000050	0.038	0.04	0.078	NA	NA	NA
RW-3	6/15/2015	L772316-12	0.0000098	0.000017 J	0.000046 J	0.00016	<0.000050	0.00013	0.000031 J	<0.000050	0.000024 J	0.000026 J	<0.000050	<0.000050	<0.000050	0.0002	<0.000050	<0.000050	<0.000050	0.0011	0.002	0.0031	NA	NA	NA
RW-3	5/18/2016	L836880-12	0.0000022	0.0000239 J	0.0000541	0.000218	<0.000050	0.000212	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000467	<0.000050	<0.000050	<0.000050	0.00239	0.0019	0.00429	NA	NA	NA
RW-3	5/11/2017	L908975-12	0.00000526	0.0000579	0.000131	0.000487	<0.000050	0.000498	<0.000050	<0.000050	0.0000199 J	<0.000050	<0.000050	<0.000050	<0.000050	0.000919	<0.000050	<0.000050	<0.000050	0.00509	0.0036	0.00869	NA	NA	NA
RW-3	6/1/2018	L1000318-12	0.00464	<0.000050	0.000236	0.000884	<0.000050	0.000985	<0.000050	<0.000050	0.00006	<0.000050	<0.000050	<0.000050	<0.000050	0.00139	<0.000050	<0.000050	<0.000050	0.00691	0.00472	0.01163	NA	NA	NA
RW-4	5/12/2010	1005477-12	0.000043	<0.0002	0.0004	0.0021	<0.0002	0.0035	<0.0002	<0.0002	<0.0002	<0.0002	0.00044	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	40	48	7.8
RW-4	5/23/2012	12051130-12	0.000017	0.000236	0.00026	0.00151	<0.0000962	0.00326	<0.0000962	<0.0000962	0.000104	<0.0000962	0.000295	<0.0000962	<0.0000962	NA	<0.0000962	<0.0000962	<0.0000962	NA	NA	NA	NA	NA	NA
RW-4	6/12/2013	L641626-12	**0.057**	0.2	**0.41**	**1.6**	<0.015	**1.8**	0.1	1.6	0.054	<0.012	0.017	<0.014	<0.012	3.1	<0.004	<0.011	<0.014	41	42	NA	NA	NA	NA
RW-4	6/4/2014	L703463-13	0.000052	0.00089	0.002	0.0062	<0.000050	0.00001	<0.000050	<0.000050	0.00075	<0.000050	<0.000050	<0.000050	0.00032	0.0083	<0.000050	<0.000050	<0.000050	0.0068	0.072	0.0788	NA	NA	NA
RW-4	6/15/2015	L772316-13	0.000074	0.00009	0.00016	0.00081	<0.000050	0.00076	0.000057	<0.000050	0.000023 J	0.00002 J	<0.000050	0.0000035 J	<0.000050	0.0015	<0.000050	0.0000033 J	<0.000050	0.0082	0.0045	0.0127	NA	NA	NA
RW-4	5/18/2016	L836880-13	0.000277	0.000257	0.000552	0.00236	<0.000050	0.00247	<0.000050	<0.000050	0.000206	<0.000050	<0.000050	<0.000050	0.0000724	0.00331	<0.000050	0.0000166 J	<0.000050	0.0213	0.0128	0.0341	NA	NA	NA

TABLE 5
PAH Groundwater Analytical Results
Plains Marketing, L.P.
Vacuum to Jal 14" Mainline #3
NMOCD NO. 1R-455
Lea County, New Mexico

Monitoring Well	Sample Date	Lab Report #	Naphthalene	Acenaphthylene	Acenaphthene	Flourene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]-anthracene	Chrysene	Benzo[b]-fluoranthene	Benzo[a]-pyrene	Dibenzofuran	Dibenz[a,h]-anthracene	Benzo[g,h,i]-perylene	Benzo(k)fluoranthene	1-Methylnaphthalene	2-Methylnaphthalene	Total methylnaphthalene	TPH-GRO (C6-C10)	TPH (C10-C28)	TPH (C28-C30)
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	(mg/L)	(mg/L)
Other regulatory limits (Tap Water*)			**0.03**		**0.365**	**0.243**	**0.0091**	**1.1**	**1.83**	**1.46**	**0.183**	**0.00091**	**0.0291**	**0.00091**	**0.0007****		**0.091**		**9.1**			*******			
RW-4	5/10/2017	L908975-13	0.00000233	0.000139	0.000285	0.0012	<0.000050	0.00112	0.0000737	<0.000050	0.0000311 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00237	<0.000050	0.00000296 J	<0.000050	0.0212	0.0127	0.0339	NA	NA	NA
RW-4	6/1/2018	L1000318-13	0.0139	<0.000050	0.000326	<0.000050	<0.000050	0.00134	<0.000050	<0.000050	0.0000522	<0.000050	<0.000050	<0.000050	<0.000050	0.0023	<0.000050	<0.000050	<0.000050	0.018	0.0101	0.0281	NA	NA	NA
RW-5	5/12/2010	1005477-13	0.0000096	<0.0002	<0.0002	0.00074	<0.0002	0.00086	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.0002	NA	NA	NA	7.8	3.8	<0.47
RW-5	5/23/2012	12051130-13	0.00000776	0.000364	0.000203	0.00157	**<0.0962**	0.00344	<0.0000962	<0.0000962	<0.0000962	<0.0000962	0.000349	<0.0000962	<0.0000962	<0.0000962	<0.0000962	<0.0000962	<0.0000962	NA	NA	NA	NA	NA	NA
RW-5	6/12/2013	L641626-13	<0.0000082	<0.0000068	<0.0000082	<0.0000085	<0.000015	<0.0000082	<0.0000076	<0.000016	<0.000012	<0.000012	<0.000011	<0.000014	<0.000012	0.0000048	<0.000004	<0.000011	<0.0000014	<0.0000082	<0.000009	NA	NA	NA	NA
RW-5	6/4/2014	L703463-14	0.0000068	0.0001	0.000015	0.00087	<0.000050	0.0008	0.000041	<0.000050	0.000029	<0.000050	<0.000050	<0.000050	<0.000050	0.0017	<0.000050	<0.000050	<0.000050	0.0068	0.0047	0.0115	NA	NA	NA
RW-5	6/15/2015	L772316-14	0.000034	0.0002	0.00019	0.0017	<0.000050	0.0017	0.00019	0.000034	0.000099	0.000067	0.000037 J	0.000011 J	0.000029 J	0.003	<0.000050	0.0000059 J	<0.000050	0.029	0.029	0.058	NA	NA	NA
RW-5	5/18/2016	L836880-14	0.000387	0.0000186 J	0.0000466 J	0.000205	<0.000050	0.000137	<0.000050	<0.000050	0.0000202 J	<0.000050	<0.000050	<0.000050	<0.000050	0.000925	<0.000050	0.0000318 J	<0.000050	0.000497	0.00038	0.000877	NA	NA	NA
RW-5	5/10/2017	L908975-14	0.00603	0.0000564	0.000115	0.000463	<0.000050	0.00042	<0.000050	<0.000050	0.0000182 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00164	<0.000050	<0.000050	<0.000050	0.00616	0.00424	0.0104	NA	NA	NA
RW-5	6/1/2018	L1000318-14	0.00363	<0.000050	0.00016	0.000592	<0.000050	0.000638	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00166	<0.000050	<0.000050	<0.000050	0.00598	0.00327	0.00925	NA	NA	NA
IW-1	6/4/2014	L703463-15	0.000029	0.0038	0.012	0.043	<0.000050	0.078	<0.000050	<0.000050	0.006	<0.000050	<0.000050	<0.000050	**0.0022**	0.058	<0.000050	<0.000050	<0.000050	0.41	0.46	0.87	NA	NA	NA
IW-1	6/15/2015	L772316-15	0.0000049	0.000074	0.000067	0.00057	<0.000050	0.00068	0.000058	<0.000050	0.000027 J	0.000022 J	<0.000050	0.000003 J	<0.000050	0.00079	<0.000050	<0.000050	<0.000050	0.0052	0.0043	0.0095	NA	NA	NA
IW-1	5/18/2016	L836880-15	0.000000276	0.0000419 J	0.0000818	0.000316	<0.000050	0.000341	<0.000050	<0.000050	0.000013 J	<0.000050	<0.000050	<0.000050	<0.000050	0.000509	<0.000050	<0.000050	<0.000050	0.00364	0.00129	0.00493	NA	NA	NA
IW-1	5/11/2017	L908975-15	0.0000191	0.000124	0.000258	0.000956	<0.000050	0.00113	0.000106	<0.000050	0.0000481 J	<0.000050	<0.000050	<0.000050	<0.000050	0.00166	<0.000050	0.0000048 J	<0.000050	0.0175	0.0138	0.0313	NA	NA	NA
IW-1	6/1/2018	L1000318-15	0.019	<0.000050	0.000434	0.0015	<0.000050	0.00195	<0.000050	<0.000050	0.000105	<0.000050	0.000058	<0.000050	<0.000050	0.00232	<0.000050	<0.000050	<0.000050	0.0193	0.0176	0.0369	NA	NA	NA
IW-1	5/8/2019	L1098116-15	**0.0524**	<0.000050	0.000371	0.00174	<0.000050	0.00165	<0.000050	<0.000050	0.0000618	**0.000915**	<0.000050	<0.000050	<0.000050	0.00293	<0.000050	<0.000050	<0.000050	0.0383	0.0336	0.0719	NA	NA	NA
IW-2	6/4/2014	L703463-16	0.00003	0.0011	0.001	0.0034	<0.000050	0.0059	0.00099	<0.000050	0.00052	<0.000050	0.00023	<0.000050	0.0002	0.0049	<0.000050	<0.000050	<0.000050	0.041	0.043	84	NA	NA	NA
IW-2	6/15/2015	L772316-16	0.0000078	0.000083	0.00016	0.00072	<0.000050	0.00073	0.000083	<0.000050	0.000038 J	0.00003	0.000012 J	0.0000072 J	<0.000050	0.000001	<0.000050	0.0000035 J	<0.000050	0.0087	0.0083	0.017	NA	NA	NA
IW-2	5/18/2016	L836880-16	0.00000059 BJ	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00000527 J	<0.000050	<0.000050	<0.000050	0.000022 J	<0.250	0.022	NA	NA	NA
IW-2	5/11/2017	L908975-16	0.00000746	0.0000966	0.000245	0.000871	<0.000050	0.00108	<0.000050	<0.000050	0.0000774	<0.000050	<0.000050	<0.000050	<0.000050	0.00113	<0.000050	<0.000050	<0.000050	0.00918	0.00808	0.01726	NA	NA	NA
IW-2	6/1/2018	L1000318-16	0.00627	<0.000050	0.00031	0.00104	<0.000050	0.0013	<0.000050	<0.000050	0.0000947	<0.000050	<0.000050	<0.000050	<0.000050	0.00148	<0.000050	<0.000050	<0.000050	0.0102	0.00699	0.01719	NA	NA	NA
IW-2	5/8/2019	L1098116-16	0.00625	<0.000050	0.000225	0.000972	<0.000050	0.000989	<0.000050	<0.000050	0.0000605	<0.000050	<0.000050	<0.000050	<0.000050	0.00131	<0.000050	<0.000050	<0.000050	0.00949	0.00593	0.01542	NA	NA	NA
IW-3	6/4/2014	L703463-17	0.000016	0.00018	0.00072	0.0021	<0.000050	0.0037	<0.000050	<0.000050	0.00032	<0.000050	<0.000050	<0.000050	0.0001	0.0028	<0.000050	<0.000050	<0.000050	0.022	0.022	0.044	NA	NA	NA
IW-3	6/15/2015	L772316-17	0.0000027	0.000034 J	0.000038 J	0.00031	<0.000050	0.0003	0.000034 J	<0.000050	0.000015 J	0.000013 J	<0.000050	0.0000026 J	<0.000050	0.0004	<0.000050	0.0000025 J	<0.000050	0.0033	0.0026	0.0059	NA	NA	NA
IW-3	5/18/2016	L836880-17	0.000513	<0.000050	<0.000050	0.0000257 J	<0.000050	0.0000296 J	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.0000437 J	<0.000050	<0.000050	<0.000050	0.000396	0.000343	0.000739	NA	NA	NA
IW-3	5/11/2017	L908975-17	0.0000347	0.00021	0.000454	0.00167	<0.000050	0.00196	<0.000050	<0.000050	0.000103	<0.000050	<0.000050	<0.000050	<0.000050	0.00265	<0.000050	0.0000134 J	<0.000050	0.0294	0.0277	0.0571	NA	NA	NA
IW-3	6/2/2018	L1000318-17	**0.0353**	<0.000250	0.000995	0.00277	<0.000250	0.0041	<0.000250	<0.000250	0.000337	<0.000250	<0.000250	<0.000250	<0.000250	0.00422	<0.000250	<0.000250	<0.000250	0.0361	0.0357	0.0718	NA	NA	NA
IW-3	5/8/2019	L1098116-17	0.0236	<0.000050	0.000272	0.00116	<0.000050	0.00105	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00182	<0.000050	<0.000050	<0.000050	0.0225	0.0210	0.0435	NA	NA	NA

NMOCD: New Mexico Oil Conservation Division
Exceedences of NMOCD Remediation Criteria are shown in **bold**
J: Analyte detected below method detection limit (MDL but above sample detection limit (SDL)
* Values reported from run 2 as carry over was reported in run 1
Tap Water*: New Mexico Environmental Department (NMED) Tap Water Soil screening levels for residential scenarios.
*** = NM Water Quality Standard for PAHs is 30µg/L for total naphthalenes plus monomethylnaphthalenes (total methylnaphthalenes)
** = NM Water Quality Standard
[a] Estimated concentration value greater than standard range
NA: Not analyzed

TABLE 6

2019 PSH and Dissolved PHase Groundwater Recovery Data

Plains Marketing, L.P.

Vacuum to Jal 14" Mainline #3

NMOCD NO. 1R-455

Lea County, New Mexico

Well	PSH Recovered (gallons)	Groundwater Recovered (gallons)	Total Fluids Recovered (gallons)
MW-1	0.00	440.00	440
MW-3	0.00	10.00	10
RW1	0.00	320.00	320
RW2	0.00	170.00	170
RW3	0.00	40.00	40
RW4	0.00	140.00	140
RW5	0.00	100.00	100
Totals for 2	**0**	**1220**	1220

APPENDIX A

2019 Laboratory Analytical Data

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 21, 2019

Plains All American Pipeline - Entech

Sample Delivery Group:	L1070835
Samples Received:	02/15/2019
Project Number:	PAA12014
Description:	Vac to Jal#3

Report To: Kathleen Buxton
21 Waterway Ave., Suite 300
The Woodlands, TX 77380

Entire Report Reviewed By:

Olivia Studebaker
Project Manager

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

TABLE OF CONTENTS

MW2 L1070835-01 GW

Collected by	Collected date/time	Received date/time
	02/13/19 13:30	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 22:04	02/16/19 22:04	TJJ

MW3 L1070835-02 GW

Collected by	Collected date/time	Received date/time
	02/13/19 14:30	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 22:25	02/16/19 22:25	TJJ

MW4 L1070835-03 GW

Collected by	Collected date/time	Received date/time
	02/13/19 13:40	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 22:46	02/16/19 22:46	TJJ

MW5 L1070835-04 GW

Collected by	Collected date/time	Received date/time
	02/13/19 14:10	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 23:07	02/16/19 23:07	TJJ

MW6 L1070835-05 GW

Collected by	Collected date/time	Received date/time
	02/13/19 13:50	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 23:28	02/16/19 23:28	TJJ

MW7 L1070835-06 GW

Collected by	Collected date/time	Received date/time
	02/13/19 14:00	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/16/19 23:50	02/16/19 23:50	TJJ

MW8 L1070835-07 GW

Collected by	Collected date/time	Received date/time
	02/13/19 14:40	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/17/19 00:11	02/17/19 00:11	TJJ

MW9 L1070835-08 GW

Collected by	Collected date/time	Received date/time
	02/13/19 14:20	02/15/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1238269	1	02/17/19 00:32	02/17/19 00:32	TJJ

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

Olivia Studebaker
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/16/2019 22:04	WG1238269
Toluene	ND		0.00100	1	02/16/2019 22:04	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 22:04	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 22:04	WG1238269
(S) Toluene-d8	*103*		*80.0-120*		*02/16/2019 22:04*	WG1238269
(S) a,a,a-Trifluorotoluene	*94.5*		*80.0-120*		*02/16/2019 22:04*	WG1238269
(S) 4-Bromofluorobenzene	*97.6*		*77.0-126*		*02/16/2019 22:04*	WG1238269
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*02/16/2019 22:04*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/16/2019 22:25	WG1238269
Toluene	ND		0.00100	1	02/16/2019 22:25	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 22:25	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 22:25	WG1238269
(S) Toluene-d8	*101*		*80.0-120*		*02/16/2019 22:25*	WG1238269
(S) a,a,a-Trifluorotoluene	*94.0*		*80.0-120*		*02/16/2019 22:25*	WG1238269
(S) 4-Bromofluorobenzene	*97.6*		*77.0-126*		*02/16/2019 22:25*	WG1238269
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*02/16/2019 22:25*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/16/2019 22:46	WG1238269
Toluene	ND		0.00100	1	02/16/2019 22:46	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 22:46	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 22:46	WG1238269
(S) Toluene-d8	*102*		*80.0-120*		*02/16/2019 22:46*	WG1238269
(S) a,a,a-Trifluorotoluene	*95.3*		*80.0-120*		*02/16/2019 22:46*	WG1238269
(S) 4-Bromofluorobenzene	*97.6*		*77.0-126*		*02/16/2019 22:46*	WG1238269
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*02/16/2019 22:46*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	02/16/2019 23:07	WG1238269
Toluene	ND		0.00100	1	02/16/2019 23:07	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 23:07	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 23:07	WG1238269
(S) Toluene-d8	*101*		*80.0-120*		*02/16/2019 23:07*	WG1238269
(S) a,a,a-Trifluorotoluene	*94.1*		*80.0-120*		*02/16/2019 23:07*	WG1238269
(S) 4-Bromofluorobenzene	*95.5*		*77.0-126*		*02/16/2019 23:07*	WG1238269
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*02/16/2019 23:07*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/16/2019 23:28	WG1238269
Toluene	ND		0.00100	1	02/16/2019 23:28	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 23:28	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 23:28	WG1238269
(S) Toluene-d8	*100*		*80.0-120*		*02/16/2019 23:28*	WG1238269
(S) a,a,a-Trifluorotoluene	*94.4*		*80.0-120*		*02/16/2019 23:28*	WG1238269
(S) 4-Bromofluorobenzene	*98.7*		*77.0-126*		*02/16/2019 23:28*	WG1238269
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*02/16/2019 23:28*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/16/2019 23:50	WG1238269
Toluene	ND		0.00100	1	02/16/2019 23:50	WG1238269
Ethylbenzene	ND		0.00100	1	02/16/2019 23:50	WG1238269
Total Xylenes	ND		0.00300	1	02/16/2019 23:50	WG1238269
(S) Toluene-d8	*99.6*		*80.0-120*		*02/16/2019 23:50*	WG1238269
(S) a,a,a-Trifluorotoluene	*92.9*		*80.0-120*		*02/16/2019 23:50*	WG1238269
(S) 4-Bromofluorobenzene	*95.3*		*77.0-126*		*02/16/2019 23:50*	WG1238269
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*02/16/2019 23:50*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	02/17/2019 00:11	WG1238269
Toluene	ND		0.00100	1	02/17/2019 00:11	WG1238269
Ethylbenzene	ND		0.00100	1	02/17/2019 00:11	WG1238269
Total Xylenes	ND		0.00300	1	02/17/2019 00:11	WG1238269
(S) Toluene-d8	*99.8*		*80.0-120*		*02/17/2019 00:11*	WG1238269
(S) a,a,a-Trifluorotoluene	*95.1*		*80.0-120*		*02/17/2019 00:11*	WG1238269
(S) 4-Bromofluorobenzene	*95.8*		*77.0-126*		*02/17/2019 00:11*	WG1238269
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*02/17/2019 00:11*	WG1238269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/17/2019 00:32	WG1238269
Toluene	ND		0.00100	1	02/17/2019 00:32	WG1238269
Ethylbenzene	ND		0.00100	1	02/17/2019 00:32	WG1238269
Total Xylenes	ND		0.00300	1	02/17/2019 00:32	WG1238269
(S) Toluene-d8	*99.3*		*80.0-120*		*02/17/2019 00:32*	WG1238269
(S) a,a,a-Trifluorotoluene	*95.5*		*80.0-120*		*02/17/2019 00:32*	WG1238269
(S) 4-Bromofluorobenzene	*95.5*		*77.0-126*		*02/17/2019 00:32*	WG1238269
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*02/17/2019 00:32*	WG1238269

Method Blank (MB)

(MB) R3385122-3 02/16/19 20:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*99.8*			*80.0-120*
(S) a,a,a-Trifluorotoluene	*95.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

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

(LCS) R3385122-1 02/16/19 19:14 • (LCSD) R3385122-2 02/16/19 19:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0228	0.0234	91.3	93.8	70.0-123			2.63	20
Ethylbenzene	0.0250	0.0214	0.0221	85.4	88.5	79.0-123			3.48	20
Toluene	0.0250	0.0213	0.0221	85.1	88.6	79.0-120			4.00	20
Xylenes, Total	0.0750	0.0663	0.0688	88.4	91.7	79.0-123			3.70	20
(S) Toluene-d8				*96.9*	*98.0*	*80.0-120*				
(S) a,a,a-Trifluorotoluene				*96.6*	*96.5*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.5*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*101*	*100*	*70.0-130*				

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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 Reporting Limit (or MDL where applicable).
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.

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

State Accreditations

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

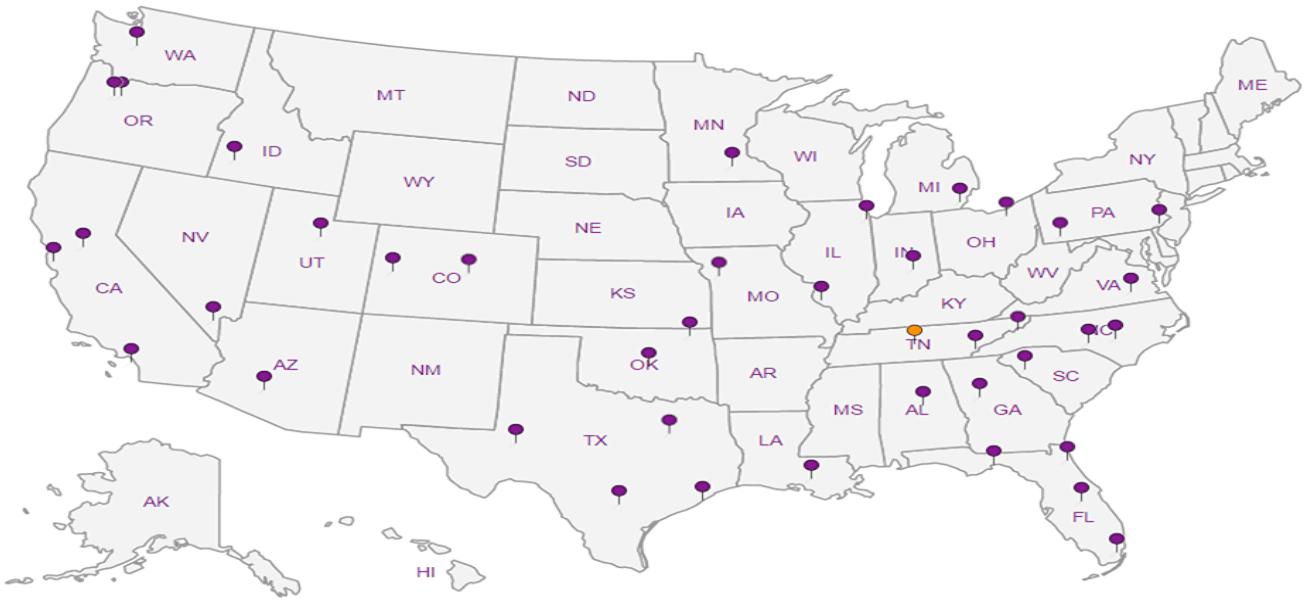
Third Party Federal Accreditations

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

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

Our Locations

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



Company Name/Address:
Plains All American Pipeline
EnTech
21 Waterway Ave. Suite 300
The woodlands, TX 77380

Billing Information:
Attn: Accounts Payable
333 Clay St., Ste 1600
Houston, TX 77002

Report to: **Kathleen Buxton**

Email To: **Kathleen.buxton@entechservice.com**

Project Description: Vac to Jal #3

City/State Collected: Eunice NM

Phone: **281-362-2714**
Fax:

Client Project # ~~PAA12014 CS.~~ PAA12014

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No __Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

V8260 BTEX Ext. 40 mL Amber-HCL

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260 BTEX Ext. 40 mL Amber-HCL	Rem./Contaminant	Sample # (lab only)
MW2				2-13-19	1330	2	Y		-01
MW3				↑	1430	↑	↑		02
MW4					1340				03
MW5					1410				04
MW6					1350				05
MW7					1400				06
MW8				↓	1440	↓	↓		07
MW9				2-13-19	1420	2	Y		08

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1076835

F182

Acctnum: **PLAINSENT**
Template:
Prelogin:
TSR:
PB:
Shipped Via:

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2-14-19	10:00	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

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

Temp: 0.9±0 °C Bottles Received: 16

Date: 02/15/19 Time: 0800

Condition: (lab use only)
RAD SCREEN: <0.5 mR/hr

COC Seal Intact: ____Y ____N ✓NA

pH Checked: NCF:

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: PLAINSENT	SDG#:	L1070835
Cooler Received/Opened On: 2 /15 /19	Temperature:	0.9
Received By: Thomas Virden		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 21, 2019

Plains All American Pipeline - Entech

Sample Delivery Group:	L1098116
Samples Received:	05/11/2019
Project Number:	PAA12014
Description:	Vac to Jal#3
Site:	SRS - 2003-00117
Report To:	Kathleen Buxton 21 Waterway Ave., Suite 300 The Woodlands, TX 77380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

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

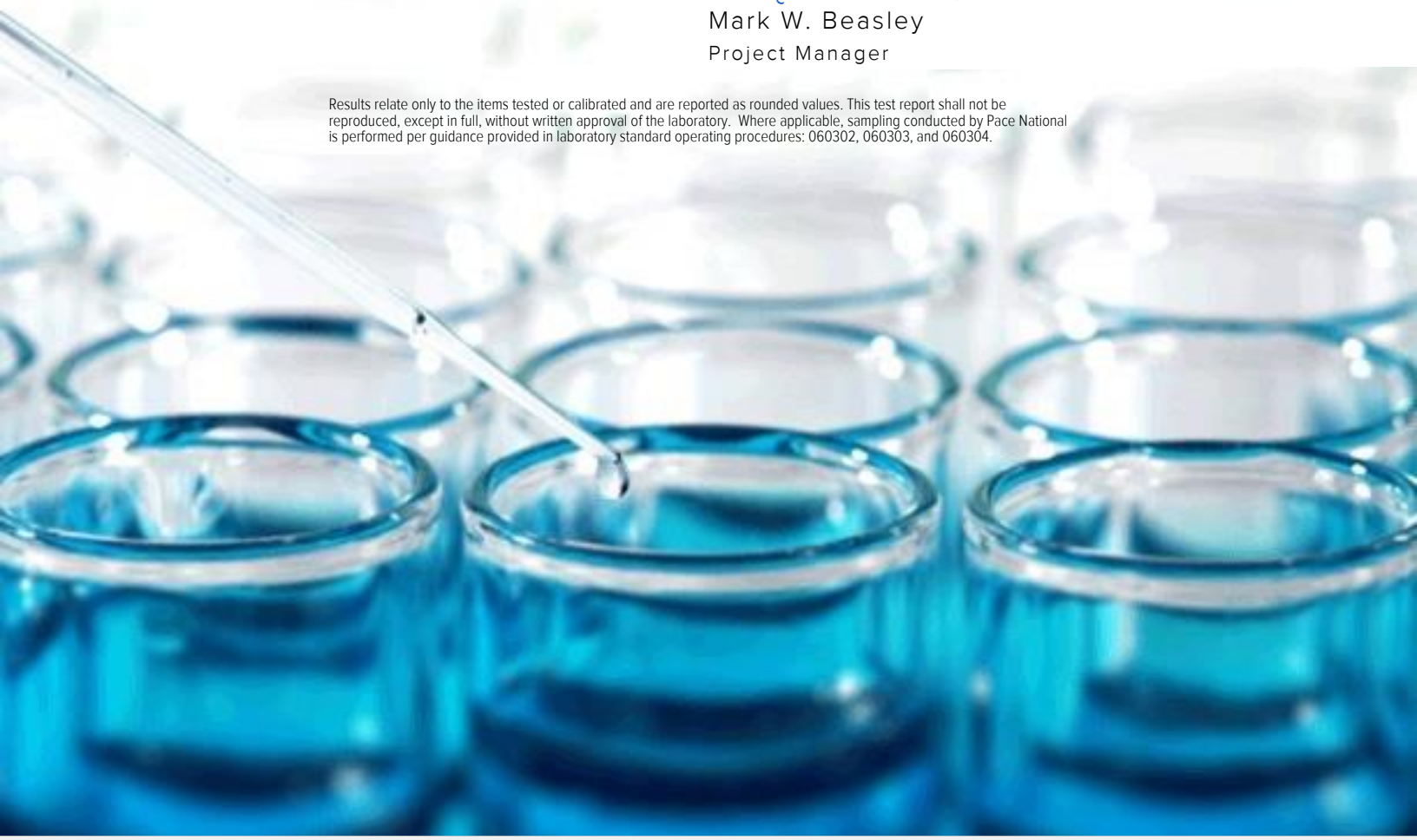


TABLE OF CONTENTS

MW1 L1098116-01 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 14:55 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 00:29	05/15/19 00:29	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 19:16	DMG	Mt. Juliet, TN

MW2 L1098116-02 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 11:35 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 00:50	05/15/19 00:50	DWR	Mt. Juliet, TN

MW3 L1098116-03 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 13:25 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 01:12	05/15/19 01:12	DWR	Mt. Juliet, TN

MW4 L1098116-04 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 15:50 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 01:33	05/15/19 01:33	DWR	Mt. Juliet, TN

MW5 L1098116-05 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:10 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 01:55	05/15/19 01:55	DWR	Mt. Juliet, TN

MW6 L1098116-06 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 15:40 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 02:17	05/15/19 02:17	DWR	Mt. Juliet, TN

MW7 L1098116-07 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 12:20 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 02:38	05/15/19 02:38	DWR	Mt. Juliet, TN

MW8 L1098116-08 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 15:55 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 03:00	05/15/19 03:00	DWR	Mt. Juliet, TN

MW9 L1098116-09 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:00 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 03:22	05/15/19 03:22	DWR	Mt. Juliet, TN

RW1 L1098116-10 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:15 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 03:43	05/15/19 03:43	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 19:37	DMG	Mt. Juliet, TN

RW2 L1098116-11 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 14:10 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 04:05	05/15/19 04:05	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 19:57	DMG	Mt. Juliet, TN

RW3 L1098116-12 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:25 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 04:27	05/15/19 04:27	DWR	Mt. Juliet, TN

RW4 L1098116-13 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:55 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 04:49	05/15/19 04:49	DWR	Mt. Juliet, TN

RW5 L1098116-14 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:50 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	1	05/15/19 05:10	05/15/19 05:10	DWR	Mt. Juliet, TN

IW1 L1098116-15 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:30 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 05:32	05/15/19 05:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1283866	50	05/20/19 13:53	05/20/19 13:53	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 20:18	DMG	Mt. Juliet, TN

IW2 L1098116-16 GW

Collected by: Shane Diller | Collected date/time: 05/08/19 16:35 | Received date/time: 05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	10	05/15/19 05:54	05/15/19 05:54	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 20:39	DMG	Mt. Juliet, TN

IW3 L1098116-17 GW

Collected by	Collected date/time	Received date/time
Shane Diller	05/08/19 16:45	05/11/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1281099	5	05/15/19 06:15	05/15/19 06:15	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1280394	1	05/14/19 09:51	05/14/19 20:59	DMG	Mt. Juliet, TN

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

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0314		0.00500	5	05/15/2019 00:29	WG1281099
Toluene	0.00620		0.00500	5	05/15/2019 00:29	WG1281099
Ethylbenzene	0.168		0.00500	5	05/15/2019 00:29	WG1281099
Total Xylenes	ND		0.0150	5	05/15/2019 00:29	WG1281099
(S) Toluene-d8	*105*		*80.0-120*		*05/15/2019 00:29*	WG1281099
(S) a,a,a-Trifluorotoluene	*110*		*80.0-120*		*05/15/2019 00:29*	WG1281099
(S) 4-Bromofluorobenzene	*108*		*77.0-126*		*05/15/2019 00:29*	WG1281099
(S) 1,2-Dichloroethane-d4	*95.0*		*70.0-130*		*05/15/2019 00:29*	WG1281099

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Acenaphthene	0.000263		0.0000500	1	05/14/2019 19:16	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Benzo(a)anthracene	0.0000611		0.0000500	1	05/14/2019 19:16	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Dibenzofuran	0.00197		0.0000500	1	05/14/2019 19:16	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Fluorene	0.00128		0.0000500	1	05/14/2019 19:16	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
Naphthalene	0.0264		0.000250	1	05/14/2019 19:16	WG1280394
Phenanthrene	0.00104		0.0000500	1	05/14/2019 19:16	WG1280394
Pyrene	ND		0.0000500	1	05/14/2019 19:16	WG1280394
1-Methylnaphthalene	0.0274		0.000250	1	05/14/2019 19:16	WG1280394
2-Methylnaphthalene	0.0195		0.000250	1	05/14/2019 19:16	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 19:16	WG1280394
(S) Nitrobenzene-d5	*197*	J1	*31.0-160*		*05/14/2019 19:16*	WG1280394
(S) 2-Fluorobiphenyl	*98.4*		*48.0-148*		*05/14/2019 19:16*	WG1280394
(S) p-Terphenyl-d14	*118*		*37.0-146*		*05/14/2019 19:16*	WG1280394

Sample Narrative:

L1098116-01 WG1280394: High surrogate is due to matrix impact

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/15/2019 00:50	WG1281099
Toluene	0.00297		0.00100	1	05/15/2019 00:50	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 00:50	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 00:50	WG1281099
(S) Toluene-d8	*102*		*80.0-120*		*05/15/2019 00:50*	WG1281099
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*05/15/2019 00:50*	WG1281099
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*05/15/2019 00:50*	WG1281099
(S) 1,2-Dichloroethane-d4	*93.5*		*70.0-130*		*05/15/2019 00:50*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 01:12	WG1281099
Toluene	0.00407		0.00100	1	05/15/2019 01:12	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 01:12	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 01:12	WG1281099
(S) Toluene-d8	*99.2*		*80.0-120*		*05/15/2019 01:12*	WG1281099
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*05/15/2019 01:12*	WG1281099
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*05/15/2019 01:12*	WG1281099
(S) 1,2-Dichloroethane-d4	*94.0*		*70.0-130*		*05/15/2019 01:12*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 01:33	WG1281099
Toluene	ND		0.00100	1	05/15/2019 01:33	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 01:33	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 01:33	WG1281099
(S) Toluene-d8	*99.8*		*80.0-120*		*05/15/2019 01:33*	WG1281099
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*05/15/2019 01:33*	WG1281099
(S) 4-Bromofluorobenzene	*98.3*		*77.0-126*		*05/15/2019 01:33*	WG1281099
(S) 1,2-Dichloroethane-d4	*94.0*		*70.0-130*		*05/15/2019 01:33*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 01:55	WG1281099
Toluene	ND		0.00100	1	05/15/2019 01:55	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 01:55	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 01:55	WG1281099
(S) Toluene-d8	*101*		*80.0-120*		*05/15/2019 01:55*	WG1281099
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*05/15/2019 01:55*	WG1281099
(S) 4-Bromofluorobenzene	*99.9*		*77.0-126*		*05/15/2019 01:55*	WG1281099
(S) 1,2-Dichloroethane-d4	*94.4*		*70.0-130*		*05/15/2019 01:55*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 02:17	WG1281099
Toluene	ND		0.00100	1	05/15/2019 02:17	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 02:17	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 02:17	WG1281099
(S) Toluene-d8	*100*		*80.0-120*		*05/15/2019 02:17*	WG1281099
(S) a,a,a-Trifluorotoluene	*109*		*80.0-120*		*05/15/2019 02:17*	WG1281099
(S) 4-Bromofluorobenzene	*93.7*		*77.0-126*		*05/15/2019 02:17*	WG1281099
(S) 1,2-Dichloroethane-d4	*93.6*		*70.0-130*		*05/15/2019 02:17*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 02:38	WG1281099
Toluene	0.00536		0.00100	1	05/15/2019 02:38	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 02:38	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 02:38	WG1281099
(S) Toluene-d8	*99.4*		*80.0-120*		*05/15/2019 02:38*	WG1281099
(S) a,a,a-Trifluorotoluene	*109*		*80.0-120*		*05/15/2019 02:38*	WG1281099
(S) 4-Bromofluorobenzene	*89.7*		*77.0-126*		*05/15/2019 02:38*	WG1281099
(S) 1,2-Dichloroethane-d4	*94.1*		*70.0-130*		*05/15/2019 02:38*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 03:00	WG1281099
Toluene	ND		0.00100	1	05/15/2019 03:00	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 03:00	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 03:00	WG1281099
(S) Toluene-d8	*101*		*80.0-120*		*05/15/2019 03:00*	WG1281099
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*05/15/2019 03:00*	WG1281099
(S) 4-Bromofluorobenzene	*96.0*		*77.0-126*		*05/15/2019 03:00*	WG1281099
(S) 1,2-Dichloroethane-d4	*91.5*		*70.0-130*		*05/15/2019 03:00*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	05/15/2019 03:22	WG1281099
Toluene	ND		0.00100	1	05/15/2019 03:22	WG1281099
Ethylbenzene	ND		0.00100	1	05/15/2019 03:22	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 03:22	WG1281099
(S) Toluene-d8	*99.0*		*80.0-120*		*05/15/2019 03:22*	WG1281099
(S) a,a,a-Trifluorotoluene	*108*		*80.0-120*		*05/15/2019 03:22*	WG1281099
(S) 4-Bromofluorobenzene	*96.3*		*77.0-126*		*05/15/2019 03:22*	WG1281099
(S) 1,2-Dichloroethane-d4	*96.3*		*70.0-130*		*05/15/2019 03:22*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0107		0.00500	5	05/15/2019 03:43	WG1281099
Toluene	ND		0.00500	5	05/15/2019 03:43	WG1281099
Ethylbenzene	0.0180		0.00500	5	05/15/2019 03:43	WG1281099
Total Xylenes	0.0186		0.0150	5	05/15/2019 03:43	WG1281099
(S) Toluene-d8	*107*		*80.0-120*		*05/15/2019 03:43*	WG1281099
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*05/15/2019 03:43*	WG1281099
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*05/15/2019 03:43*	WG1281099
(S) 1,2-Dichloroethane-d4	*93.7*		*70.0-130*		*05/15/2019 03:43*	WG1281099

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Acenaphthene	0.000138		0.0000500	1	05/14/2019 19:37	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Benzo(a)anthracene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Dibenzofuran	0.00103		0.0000500	1	05/14/2019 19:37	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Fluorene	0.000625		0.0000500	1	05/14/2019 19:37	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
Naphthalene	0.00285		0.000250	1	05/14/2019 19:37	WG1280394
Phenanthrene	0.000520		0.0000500	1	05/14/2019 19:37	WG1280394
Pyrene	ND		0.0000500	1	05/14/2019 19:37	WG1280394
1-Methylnaphthalene	0.00423		0.000250	1	05/14/2019 19:37	WG1280394
2-Methylnaphthalene	0.00316		0.000250	1	05/14/2019 19:37	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 19:37	WG1280394
(S) Nitrobenzene-d5	*116*		*31.0-160*		*05/14/2019 19:37*	WG1280394
(S) 2-Fluorobiphenyl	*102*		*48.0-148*		*05/14/2019 19:37*	WG1280394
(S) p-Terphenyl-d14	*120*		*37.0-146*		*05/14/2019 19:37*	WG1280394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.106		0.00500	5	05/15/2019 04:05	WG1281099
Toluene	0.00518		0.00500	5	05/15/2019 04:05	WG1281099
Ethylbenzene	0.0668		0.00500	5	05/15/2019 04:05	WG1281099
Total Xylenes	0.0203		0.0150	5	05/15/2019 04:05	WG1281099
(S) Toluene-d8	*106*		*80.0-120*		*05/15/2019 04:05*	WG1281099
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*05/15/2019 04:05*	WG1281099
(S) 4-Bromofluorobenzene	*99.9*		*77.0-126*		*05/15/2019 04:05*	WG1281099
(S) 1,2-Dichloroethane-d4	*97.8*		*70.0-130*		*05/15/2019 04:05*	WG1281099

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Acenaphthene	0.000249		0.0000500	1	05/14/2019 19:57	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Benzo(a)anthracene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Dibenzofuran	0.00157		0.0000500	1	05/14/2019 19:57	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Fluorene	0.000999		0.0000500	1	05/14/2019 19:57	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
Naphthalene	0.00615		0.000250	1	05/14/2019 19:57	WG1280394
Phenanthrene	0.000919		0.0000500	1	05/14/2019 19:57	WG1280394
Pyrene	ND		0.0000500	1	05/14/2019 19:57	WG1280394
1-Methylnaphthalene	0.0141		0.000250	1	05/14/2019 19:57	WG1280394
2-Methylnaphthalene	0.00593		0.000250	1	05/14/2019 19:57	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 19:57	WG1280394
(S) Nitrobenzene-d5	*135*		*31.0-160*		*05/14/2019 19:57*	WG1280394
(S) 2-Fluorobiphenyl	*106*		*48.0-148*		*05/14/2019 19:57*	WG1280394
(S) p-Terphenyl-d14	*130*		*37.0-146*		*05/14/2019 19:57*	WG1280394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0117		0.00100	1	05/15/2019 04:27	WG1281099
Toluene	0.00208		0.00100	1	05/15/2019 04:27	WG1281099
Ethylbenzene	0.0425		0.00100	1	05/15/2019 04:27	WG1281099
Total Xylenes	0.0194		0.00300	1	05/15/2019 04:27	WG1281099
(S) Toluene-d8	*106*		*80.0-120*		*05/15/2019 04:27*	WG1281099
(S) a,a,a-Trifluorotoluene	*104*		*80.0-120*		*05/15/2019 04:27*	WG1281099
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*05/15/2019 04:27*	WG1281099
(S) 1,2-Dichloroethane-d4	*93.0*		*70.0-130*		*05/15/2019 04:27*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	05/15/2019 04:49	WG1281099
Toluene	ND		0.00500	5	05/15/2019 04:49	WG1281099
Ethylbenzene	0.161		0.00500	5	05/15/2019 04:49	WG1281099
Total Xylenes	ND		0.0150	5	05/15/2019 04:49	WG1281099
(S) Toluene-d8	*103*		*80.0-120*		*05/15/2019 04:49*	WG1281099
(S) a,a,a-Trifluorotoluene	*106*		*80.0-120*		*05/15/2019 04:49*	WG1281099
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*05/15/2019 04:49*	WG1281099
(S) 1,2-Dichloroethane-d4	*92.3*		*70.0-130*		*05/15/2019 04:49*	WG1281099

Sample Narrative:

L1098116-13 WG1281099: Non-target compounds too high to run at a lower dilution.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00516		0.00100	1	05/15/2019 05:10	WG1281099
Toluene	ND		0.00100	1	05/15/2019 05:10	WG1281099
Ethylbenzene	0.00471		0.00100	1	05/15/2019 05:10	WG1281099
Total Xylenes	ND		0.00300	1	05/15/2019 05:10	WG1281099
(S) Toluene-d8	*107*		*80.0-120*		*05/15/2019 05:10*	WG1281099
(S) a,a,a-Trifluorotoluene	*107*		*80.0-120*		*05/15/2019 05:10*	WG1281099
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*05/15/2019 05:10*	WG1281099
(S) 1,2-Dichloroethane-d4	*93.6*		*70.0-130*		*05/15/2019 05:10*	WG1281099

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	1.71		0.0500	50	05/20/2019 13:53	WG1283866
Toluene	0.00815		0.00500	5	05/15/2019 05:32	WG1281099
Ethylbenzene	0.483		0.00500	5	05/15/2019 05:32	WG1281099
Total Xylenes	0.490		0.0150	5	05/15/2019 05:32	WG1281099
(S) Toluene-d8	*102*		*80.0-120*		*05/15/2019 05:32*	WG1281099
(S) Toluene-d8	*107*		*80.0-120*		*05/20/2019 13:53*	WG1283866
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*05/15/2019 05:32*	WG1281099
(S) a,a,a-Trifluorotoluene	*120*		*80.0-120*		*05/20/2019 13:53*	WG1283866
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*05/15/2019 05:32*	WG1281099
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*05/20/2019 13:53*	WG1283866
(S) 1,2-Dichloroethane-d4	*90.0*		*70.0-130*		*05/15/2019 05:32*	WG1281099
(S) 1,2-Dichloroethane-d4	*79.7*		*70.0-130*		*05/20/2019 13:53*	WG1283866

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Acenaphthene	0.000371		0.0000500	1	05/14/2019 20:18	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Benzo(a)anthracene	0.0000915		0.0000500	1	05/14/2019 20:18	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Dibenzofuran	0.00293		0.0000500	1	05/14/2019 20:18	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Fluorene	0.00174		0.0000500	1	05/14/2019 20:18	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 20:18	WG1280394
Naphthalene	0.0524		0.000250	1	05/14/2019 20:18	WG1280394
Phenanthrene	0.00165		0.0000500	1	05/14/2019 20:18	WG1280394
Pyrene	0.0000618		0.0000500	1	05/14/2019 20:18	WG1280394
1-Methylnaphthalene	0.0383		0.000250	1	05/14/2019 20:18	WG1280394
2-Methylnaphthalene	0.0336		0.000250	1	05/14/2019 20:18	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 20:18	WG1280394
(S) Nitrobenzene-d5	*155*		*31.0-160*		*05/14/2019 20:18*	WG1280394
(S) 2-Fluorobiphenyl	*103*		*48.0-148*		*05/14/2019 20:18*	WG1280394
(S) p-Terphenyl-d14	*113*		*37.0-146*		*05/14/2019 20:18*	WG1280394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0665		0.0100	10	05/15/2019 05:54	WG1281099
Toluene	ND		0.0100	10	05/15/2019 05:54	WG1281099
Ethylbenzene	0.0584		0.0100	10	05/15/2019 05:54	WG1281099
Total Xylenes	0.0480		0.0300	10	05/15/2019 05:54	WG1281099
(S) Toluene-d8	*103*		*80.0-120*		*05/15/2019 05:54*	WG1281099
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*05/15/2019 05:54*	WG1281099
(S) 4-Bromofluorobenzene	*86.3*		*77.0-126*		*05/15/2019 05:54*	WG1281099
(S) 1,2-Dichloroethane-d4	*91.8*		*70.0-130*		*05/15/2019 05:54*	WG1281099

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Acenaphthene	0.000225		0.0000500	1	05/14/2019 20:39	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Benzo(a)anthracene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Dibenzofuran	0.00131		0.0000500	1	05/14/2019 20:39	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Fluorene	0.000972		0.0000500	1	05/14/2019 20:39	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 20:39	WG1280394
Naphthalene	0.00625		0.000250	1	05/14/2019 20:39	WG1280394
Phenanthrene	0.000989		0.0000500	1	05/14/2019 20:39	WG1280394
Pyrene	0.0000605		0.0000500	1	05/14/2019 20:39	WG1280394
1-Methylnaphthalene	0.00949		0.000250	1	05/14/2019 20:39	WG1280394
2-Methylnaphthalene	0.00593		0.000250	1	05/14/2019 20:39	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 20:39	WG1280394
(S) Nitrobenzene-d5	*118*		*31.0-160*		*05/14/2019 20:39*	WG1280394
(S) 2-Fluorobiphenyl	*100*		*48.0-148*		*05/14/2019 20:39*	WG1280394
(S) p-Terphenyl-d14	*113*		*37.0-146*		*05/14/2019 20:39*	WG1280394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.347		0.00500	5	05/15/2019 06:15	WG1281099
Toluene	0.0189		0.00500	5	05/15/2019 06:15	WG1281099
Ethylbenzene	0.243		0.00500	5	05/15/2019 06:15	WG1281099
Total Xylenes	0.382		0.0150	5	05/15/2019 06:15	WG1281099
(S) Toluene-d8	*99.1*		*80.0-120*		*05/15/2019 06:15*	WG1281099
(S) a,a,a-Trifluorotoluene	*105*		*80.0-120*		*05/15/2019 06:15*	WG1281099
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*05/15/2019 06:15*	WG1281099
(S) 1,2-Dichloroethane-d4	*90.0*		*70.0-130*		*05/15/2019 06:15*	WG1281099

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Acenaphthene	0.000272		0.0000500	1	05/14/2019 20:59	WG1280394
Acenaphthylene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Benzo(a)anthracene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Benzo(a)pyrene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Benzo(b)fluoranthene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Benzo(g,h,i)perylene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Benzo(k)fluoranthene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Chrysene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Dibenz(a,h)anthracene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Dibenzofuran	0.00182		0.0000500	1	05/14/2019 20:59	WG1280394
Fluoranthene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Fluorene	0.00116		0.0000500	1	05/14/2019 20:59	WG1280394
Indeno(1,2,3-cd)pyrene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
Naphthalene	0.0236		0.000250	1	05/14/2019 20:59	WG1280394
Phenanthrene	0.00105		0.0000500	1	05/14/2019 20:59	WG1280394
Pyrene	ND		0.0000500	1	05/14/2019 20:59	WG1280394
1-Methylnaphthalene	0.0225		0.000250	1	05/14/2019 20:59	WG1280394
2-Methylnaphthalene	0.0210		0.000250	1	05/14/2019 20:59	WG1280394
2-Chloronaphthalene	ND		0.000250	1	05/14/2019 20:59	WG1280394
(S) Nitrobenzene-d5	*136*		*31.0-160*		*05/14/2019 20:59*	WG1280394
(S) 2-Fluorobiphenyl	*90.5*		*48.0-148*		*05/14/2019 20:59*	WG1280394
(S) p-Terphenyl-d14	*107*		*37.0-146*		*05/14/2019 20:59*	WG1280394

Method Blank (MB)

(MB) R3412836-3 05/14/19 23:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*105*			*80.0-120*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*

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

(LCS) R3412836-1 05/14/19 21:57 • (LCSD) R3412836-2 05/14/19 22:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0260	0.0261	104	104	70.0-123			0.261	20
Ethylbenzene	0.0250	0.0255	0.0251	102	100	79.0-123			1.58	20
Toluene	0.0250	0.0240	0.0251	95.9	100	79.0-120			4.61	20
Xylenes, Total	0.0750	0.0756	0.0823	101	110	79.0-123			8.49	20
(S) Toluene-d8				*96.5*	*98.0*	*80.0-120*				
(S) a,a,a-Trifluorotoluene				*104*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.2*	*107*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*104*	*107*	*70.0-130*				

Method Blank (MB)

(MB) R3412946-2 05/20/19 09:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
(S) Toluene-d8	*109*			*80.0-120*
(S) a,a,a-Trifluorotoluene	*120*			*80.0-120*
(S) 4-Bromofluorobenzene	*110*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*79.5*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3412946-1 05/20/19 09:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0237	94.7	70.0-123	
(S) Toluene-d8			*105*	*80.0-120*	
(S) a,a,a-Trifluorotoluene			*117*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*88.6*	*70.0-130*	

Method Blank (MB)

(MB) R3411267-3 05/14/19 14:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
1-Methylnaphthalene	U		0.00000821	0.000250
2-Methylnaphthalene	U		0.00000902	0.000250
2-Chloronaphthalene	U		0.00000647	0.000250
Dibenzofuran	0.00000569	J	0.00000105	0.0000500
(S) Nitrobenzene-d5	*106*			*31.0-160*
(S) 2-Fluorobiphenyl	*73.0*			*48.0-148*
(S) p-Terphenyl-d14	*125*			*37.0-146*

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

(LCS) R3411267-1 05/14/19 13:23 • (LCSD) R3411267-2 05/14/19 13:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00198	0.00192	99.0	96.0	67.0-134			3.08	20
Anthracene	0.00200	0.00212	0.00211	106	105	67.0-150			0.473	20
Acenaphthene	0.00200	0.00192	0.00185	96.0	92.5	65.0-138			3.71	20
Acenaphthylene	0.00200	0.00202	0.00197	101	98.5	66.0-140			2.51	20
Benzo(a)anthracene	0.00200	0.00244	0.00243	122	122	61.0-140			0.411	20
Benzo(a)pyrene	0.00200	0.00246	0.00249	123	124	60.0-143			1.21	20
Benzo(b)fluoranthene	0.00200	0.00247	0.00221	123	111	58.0-141			11.1	20
Benzo(g,h,i)perylene	0.00200	0.00224	0.00224	112	112	52.0-153			0.000	20
Benzo(k)fluoranthene	0.00200	0.00258	0.00246	129	123	58.0-148			4.76	20
Chrysene	0.00200	0.00215	0.00214	108	107	64.0-144			0.466	20

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

(LCS) R3411267-1 05/14/19 13:23 • (LCSD) R3411267-2 05/14/19 13:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenz(a,h)anthracene	0.00200	0.00217	0.00220	108	110	52.0-155			1.37	20
Fluoranthene	0.00200	0.00235	0.00237	117	118	69.0-153			0.847	20
Fluorene	0.00200	0.00202	0.00196	101	98.0	64.0-136			3.02	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00223	0.00226	111	113	54.0-153			1.34	20
Naphthalene	0.00200	0.00185	0.00171	92.5	85.5	61.0-137			7.87	20
Phenanthrene	0.00200	0.00205	0.00205	102	102	62.0-137			0.000	20
Pyrene	0.00200	0.00205	0.00209	102	105	60.0-142			1.93	20
1-Methylnaphthalene	0.00200	0.00199	0.00184	99.5	92.0	66.0-142			7.83	20
2-Methylnaphthalene	0.00200	0.00190	0.00173	95.0	86.5	62.0-136			9.37	20
2-Chloronaphthalene	0.00200	0.00185	0.00171	92.5	85.5	64.0-140			7.87	20
(S) Nitrobenzene-d5				*105*	*89.5*	*31.0-160*				
(S) 2-Fluorobiphenyl				*66.5*	*59.5*	*48.0-148*				
(S) p-Terphenyl-d14				*108*	*106*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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 Reporting Limit (or MDL where applicable).
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

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

State Accreditations

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

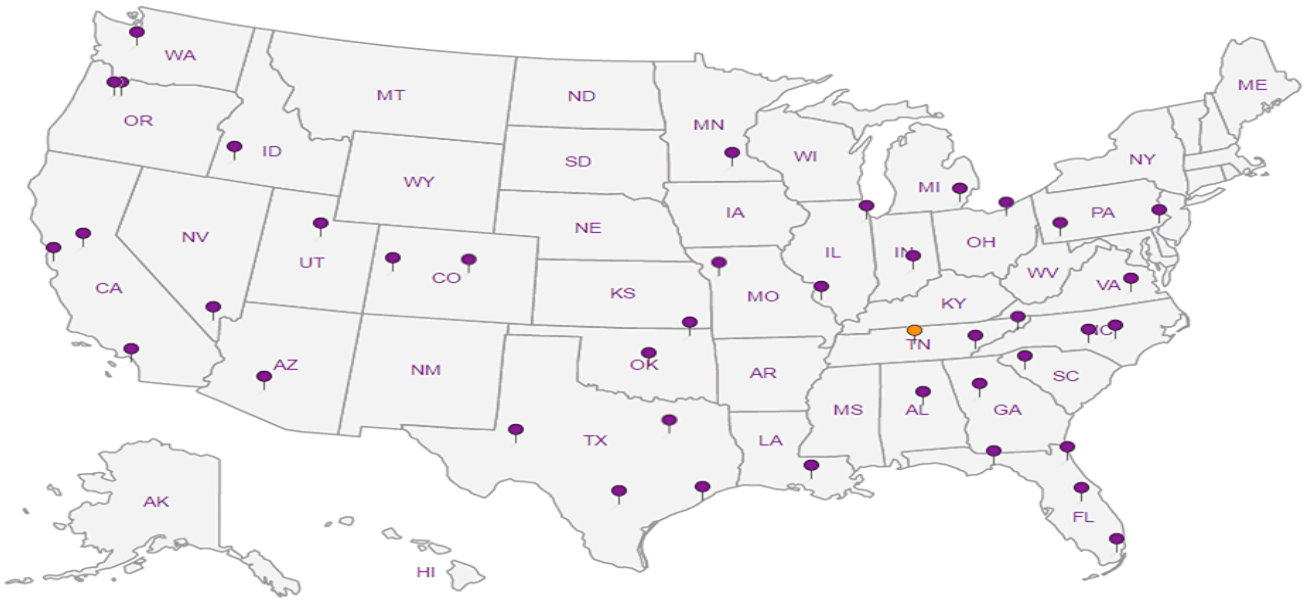
Third Party Federal Accreditations

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

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

Our Locations

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



Plains All American Pipeline - Entech

21 Waterway Ave., Suite 300
The Woodlands, TX 77380

Billing Information:
Accounts Payable
333 Clay St., Ste 1600
Houston, TX 77002

Report to: Kathleen Buxton

Email To: kathleen.buxton@entechservice.com, cjbryant@paalp.com

Project Description: Vac to Jal#3

City/State Collected: Eunice NM

Phone: 979-997-2338
Fax:

Client Project # PAA12014

Lab Project # PLAINSENT-VAC3

Collected by (print): SHANE DILLER

Site/Facility ID # SRS - 2003-00117

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl									Remarks	Sample # (lab only)
MW1	G	GW		5-8-19	1455	4	X	X										-01
MW2		GW			1135	2	-											-02
MW3		GW			1325													-03
MW4		GW			1550													-04
MW5		GW			1610													-05
MW6		GW			1540													-06
MW7		GW			1220													-07
MW8		GW			1555													-08
MW9		GW			1600	2												-09
RW1	G	GW		5-8-19	1615	4	X	X										-10

PAD SCREEN: <0.5 mR/hr

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

L# L098116
B122

Acctnum: PLAINSENT
Template: T94128
Prelogin: P707768
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	5.10.19 5-9-19	15:00 1200			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
	5.10.19	16:00		1.8+0.1=1.9 pH 46	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
				5/11/19 0836	

Plains All American Pipeline - Entech

21 Waterway Ave., Suite 300
The Woodlands, TX 77380

Billing Information:
Accounts Payable
333 Clay St., Ste 1600
Houston, TX 77002

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

Report to: **Kathleen Buxton**

Email To: **kathleen.buxton@entechservice.com, cjbryant@paalp.com**

Project Description: **Vac to Jal#3**

City/State Collected: Eunice NM

Phone: **979-997-2338**
Fax:

Client Project # **PAA12014**

Lab Project # **PLAINSENT-VAC3**

L # L1098116

Table #

Collected by (print): SHANE DILLER

Site/Facility ID # **SRS - 2003-00117**

P.O. #

Acctnum: **PLAINSENT**
Template: **T94128**
Prelogin: **P707768**
TSR: **134 - Mark W. Beasley**
PB:
Shipped Via:

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl								Remarks	Sample # (lab only)
RW2		GW			1410	4	X	X									-11
RW3		GW			1625	2		↓									-12
RW4		GW			1655	2		↓									-13
RW5		GW			1650	2		↓									-14
IW1		GW			1630	4	X	↓									-15
IW2		GW			1635	4	X	↓									-16
IW3		GW			1645	4	X	X									-17
		GW															
		GW															
		GW															

RAD SCREEN: <0.5 mR/hr

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

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

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)		
[signature]	5.10.19 (~~5-9-19~~)	15:00 (~~1200~~)	[signature]	Trip Blank Received: Yes / (No) HCL / MeoH TBR	
[signature]	5.10.19	16:00	SWA	Temp: 1.8±0=1.8 °C	Bottles Received: 16
			Received for lab by: (Signature) [signature]	Date: 5/11/19	Time: 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

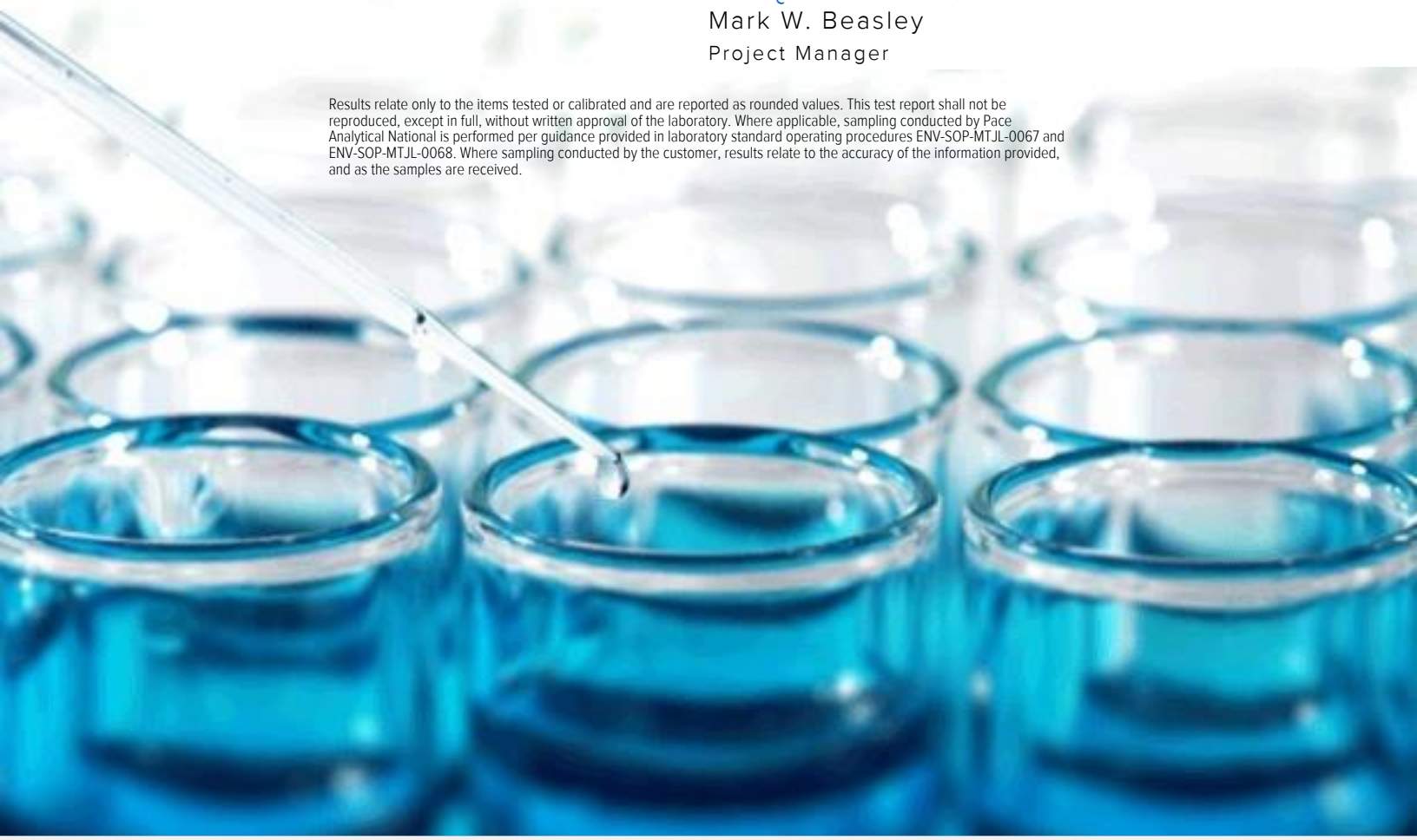
September 03, 2019

Plains All American Pipeline - Entech

Sample Delivery Group:	L1132371
Samples Received:	08/23/2019
Project Number:	PAA12014
Description:	Vac to Jal#3
Site:	SRS - 2003-00117
Report To:	Kathleen Buxton 21 Waterway Ave., Suite 300 The Woodlands, TX 77380

Entire Report Reviewed By:

Mark W. Beasley
Project Manager



MW2 L1132371-01 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:40 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 03:33	08/31/19 03:33	ADM	Mt. Juliet, TN

MW3 L1132371-02 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:45 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 03:53	08/31/19 03:53	ADM	Mt. Juliet, TN

MW4 L1132371-03 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:15 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 04:13	08/31/19 04:13	ADM	Mt. Juliet, TN

MW5 L1132371-04 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:30 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 04:34	08/31/19 04:34	ADM	Mt. Juliet, TN

MW6 L1132371-05 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:20 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 04:54	08/31/19 04:54	ADM	Mt. Juliet, TN

MW7 L1132371-06 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:25 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 05:14	08/31/19 05:14	ADM	Mt. Juliet, TN

MW8 L1132371-07 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:50 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 05:34	08/31/19 05:34	ADM	Mt. Juliet, TN

MW9 L1132371-08 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:35 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 05:55	08/31/19 05:55	ADM	Mt. Juliet, TN

RW1 L1132371-09 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 13:10 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	5	08/31/19 06:15	08/31/19 06:15	ADM	Mt. Juliet, TN

RW2 L1132371-10 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 12:55 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338567	1	09/01/19 14:00	09/01/19 14:00	JHH	Mt. Juliet, TN

RW4 L1132371-11 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 13:00 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338035	1	08/31/19 06:56	08/31/19 06:56	ADM	Mt. Juliet, TN

RW5 L1132371-12 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 13:05 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338567	1	09/01/19 14:19	09/01/19 14:19	JHH	Mt. Juliet, TN

IW2 L1132371-13 GW

Collected by: Chris Sanchez | Collected date/time: 08/22/19 13:15 | Received date/time: 08/23/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1338567	1	09/01/19 14:39	09/01/19 14:39	JHH	Mt. Juliet, TN

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

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	08/31/2019 03:33	WG1338035
Toluene	ND		0.00100	1	08/31/2019 03:33	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 03:33	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 03:33	WG1338035
(S) Toluene-d8	*101*		*80.0-120*		*08/31/2019 03:33*	WG1338035
(S) 4-Bromofluorobenzene	*98.5*		*77.0-126*		*08/31/2019 03:33*	WG1338035
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*08/31/2019 03:33*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 03:53	WG1338035
Toluene	ND		0.00100	1	08/31/2019 03:53	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 03:53	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 03:53	WG1338035
(S) Toluene-d8	*100*		*80.0-120*		*08/31/2019 03:53*	WG1338035
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*08/31/2019 03:53*	WG1338035
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*08/31/2019 03:53*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 04:13	WG1338035
Toluene	ND		0.00100	1	08/31/2019 04:13	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 04:13	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 04:13	WG1338035
(S) Toluene-d8	*103*		*80.0-120*		*08/31/2019 04:13*	WG1338035
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*08/31/2019 04:13*	WG1338035
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*08/31/2019 04:13*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 04:34	WG1338035
Toluene	ND		0.00100	1	08/31/2019 04:34	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 04:34	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 04:34	WG1338035
(S) Toluene-d8	*100*		*80.0-120*		*08/31/2019 04:34*	WG1338035
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*08/31/2019 04:34*	WG1338035
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*08/31/2019 04:34*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 04:54	WG1338035
Toluene	ND		0.00100	1	08/31/2019 04:54	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 04:54	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 04:54	WG1338035
(S) Toluene-d8	*102*		*80.0-120*		*08/31/2019 04:54*	WG1338035
(S) 4-Bromofluorobenzene	*98.4*		*77.0-126*		*08/31/2019 04:54*	WG1338035
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*08/31/2019 04:54*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 05:14	WG1338035
Toluene	ND		0.00100	1	08/31/2019 05:14	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 05:14	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 05:14	WG1338035
(S) Toluene-d8	*101*		*80.0-120*		*08/31/2019 05:14*	WG1338035
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*08/31/2019 05:14*	WG1338035
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*08/31/2019 05:14*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	08/31/2019 05:34	WG1338035
Toluene	ND		0.00100	1	08/31/2019 05:34	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 05:34	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 05:34	WG1338035
(S) Toluene-d8	*104*		*80.0-120*		*08/31/2019 05:34*	WG1338035
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*08/31/2019 05:34*	WG1338035
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*08/31/2019 05:34*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	08/31/2019 05:55	WG1338035
Toluene	ND		0.00100	1	08/31/2019 05:55	WG1338035
Ethylbenzene	ND		0.00100	1	08/31/2019 05:55	WG1338035
Total Xylenes	ND		0.00300	1	08/31/2019 05:55	WG1338035
(S) Toluene-d8	*102*		*80.0-120*		*08/31/2019 05:55*	WG1338035
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*08/31/2019 05:55*	WG1338035
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*08/31/2019 05:55*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0324		0.00500	5	08/31/2019 06:15	WG1338035
Toluene	ND		0.00500	5	08/31/2019 06:15	WG1338035
Ethylbenzene	0.0166		0.00500	5	08/31/2019 06:15	WG1338035
Total Xylenes	0.0597		0.0150	5	08/31/2019 06:15	WG1338035
(S) Toluene-d8	*104*		*80.0-120*		*08/31/2019 06:15*	WG1338035
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*08/31/2019 06:15*	WG1338035
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*08/31/2019 06:15*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00435		0.00100	1	09/01/2019 14:00	WG1338567
Toluene	ND		0.00100	1	09/01/2019 14:00	WG1338567
Ethylbenzene	0.00577		0.00100	1	09/01/2019 14:00	WG1338567
Total Xylenes	0.00520		0.00300	1	09/01/2019 14:00	WG1338567
(S) Toluene-d8	*99.4*		*80.0-120*		*09/01/2019 14:00*	WG1338567
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*09/01/2019 14:00*	WG1338567
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*09/01/2019 14:00*	WG1338567

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00699		0.00100	1	08/31/2019 06:56	WG1338035
Toluene	ND		0.00100	1	08/31/2019 06:56	WG1338035
Ethylbenzene	0.130		0.00100	1	08/31/2019 06:56	WG1338035
Total Xylenes	0.00419		0.00300	1	08/31/2019 06:56	WG1338035
(S) Toluene-d8	*100*		*80.0-120*		*08/31/2019 06:56*	WG1338035
(S) 4-Bromofluorobenzene	*97.7*		*77.0-126*		*08/31/2019 06:56*	WG1338035
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*08/31/2019 06:56*	WG1338035

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	09/01/2019 14:19	WG1338567
Toluene	ND		0.00100	1	09/01/2019 14:19	WG1338567
Ethylbenzene	0.00447		0.00100	1	09/01/2019 14:19	WG1338567
Total Xylenes	ND		0.00300	1	09/01/2019 14:19	WG1338567
(S) Toluene-d8	*99.6*		*80.0-120*		*09/01/2019 14:19*	WG1338567
(S) 4-Bromofluorobenzene	*98.5*		*77.0-126*		*09/01/2019 14:19*	WG1338567
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*09/01/2019 14:19*	WG1338567

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00201		0.00100	1	09/01/2019 14:39	WG1338567
Toluene	ND		0.00100	1	09/01/2019 14:39	WG1338567
Ethylbenzene	ND		0.00100	1	09/01/2019 14:39	WG1338567
Total Xylenes	0.00871		0.00300	1	09/01/2019 14:39	WG1338567
(S) Toluene-d8	*99.1*		*80.0-120*		*09/01/2019 14:39*	WG1338567
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*09/01/2019 14:39*	WG1338567
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*09/01/2019 14:39*	WG1338567

Method Blank (MB)

(MB) R3446336-2 08/31/19 03:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3446336-1 08/31/19 02:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0235	94.1	70.0-123	
Ethylbenzene	0.0250	0.0238	95.0	79.0-123	
Toluene	0.0250	0.0230	92.2	79.0-120	
Xylenes, Total	0.0750	0.0731	97.5	79.0-123	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

Method Blank (MB)

(MB) R3446476-3 09/01/19 13:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

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

(LCS) R3446476-1 09/01/19 12:44 • (LCSD) R3446476-2 09/01/19 13:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0258	0.0257	103	103	70.0-123			0.483	20
Ethylbenzene	0.0250	0.0248	0.0248	99.1	99.3	79.0-123			0.233	20
Toluene	0.0250	0.0245	0.0243	97.9	97.3	79.0-120			0.544	20
Xylenes, Total	0.0750	0.0751	0.0747	100	99.6	79.0-123			0.534	20
(S) Toluene-d8				*101*	*99.4*	*80.0-120*				
(S) 4-Bromofluorobenzene				*104*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*120*	*114*	*70.0-130*				

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 Reporting Limit (or MDL where applicable).
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 Reporting Limit (or MDL where applicable).
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.

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

State Accreditations

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

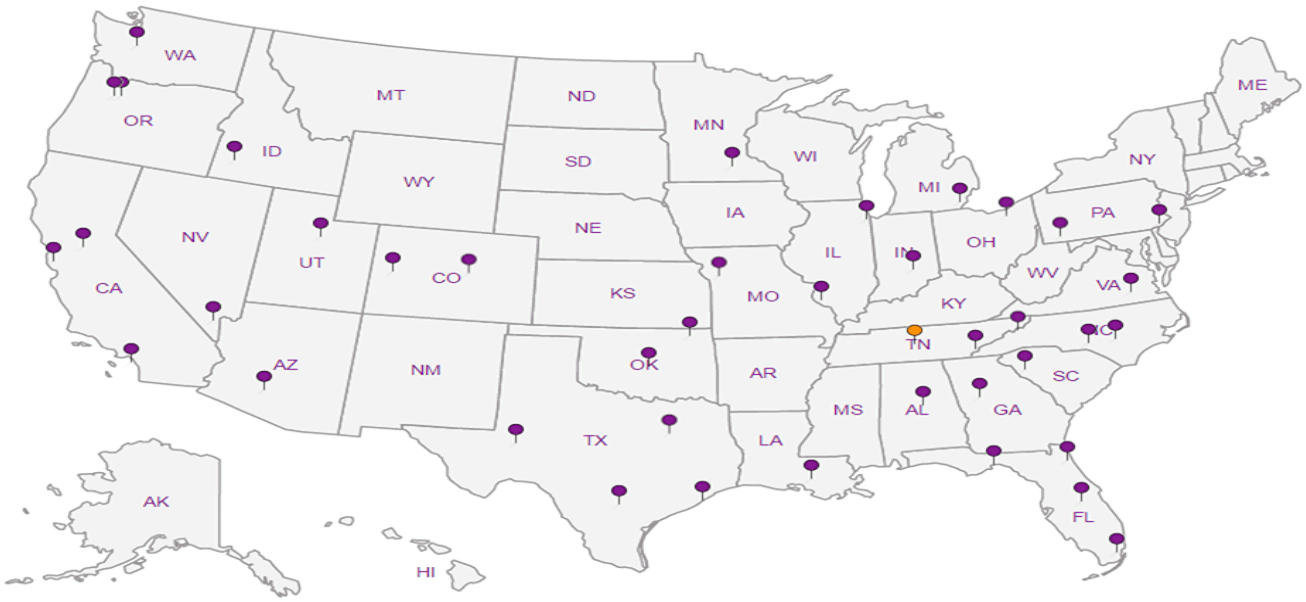
Third Party Federal Accreditations

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

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

Our Locations

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



Plains All American Pipeline - Entech

21 Waterway Ave., Suite 300
The Woodlands, TX 77380

Billing Information:
Accounts Payable
333 Clay St., Ste 1600
Houston, TX 77002

Pres Chk

Report to: Kathleen Buxton

Email To: kathleen.buxton@entechservice.com, cjbryant@paalp.com

Project Description: Vac to Jal#3

City/State Collected: EUNICE / NM

Phone: 979-997-2338
Fax:

Client Project # PAA12014

Lab Project # PLAINSENT-VAC3

Collected by (print): CHRIS SANCHEZ

Site/Facility ID # SRS - 2003-00117

P.O. #

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

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

L# L1132371

D103

Acctnum: PLAINSENT
Template: T94128
Prelogin: P707768
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
MW2		GW		8-22-19	1240	2		X		-01
MW3		GW			1245					-02
MW4		GW			1215					-03
MW5		GW			1230					-04
MW6		GW			1220					-05
MW7		GW			1225					-06
MW8		GW			1250					-07
MW9		GW			1235					-08
RW1		GW			1310					-09
RW2		GW		8-22-19	1255	2		X		-10

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier SWA

Tracking #

Sample Receipt Checklist

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

	Date:	Time:		
Relinquished by : (Signature)	8.22.19	15:30	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	8.22.19	17:00	Received by: (Signature) SWA	Temp: 4.9°C 0.2-1=0.1 Bottles Received: 76
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/23/19 Time: ~~0845~~ 0808

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Company Name/Address: **Plains All American Pipeline** EnTech 21 Waterway Ave. Suite 300 The woodlands, TX 77380	Billing Information: **Attn: Accounts Payable** 333 Clay St., Ste 1600 **Houston, TX 77002**	Chain of Custody Page 2 of 2 ESC LAB SCIENCES YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
Report to: **Kathleen Buxton**	Email To: **Kathleen.buxton@entechservice.co**	

Project Description: -VAC TO JAL 3		City/State Collected: EUNICE/NM	L# L1132371
Phone: **281-362-2714** Fax:	Client Project # PAA 12014	Lab Project #	Table #
Collected by (print): CHRIS SANCHEZ	Site/Facility ID #	P.O. #	Acctnum: **PLAINSENT**
Collected by (signature): [signature] Immediately Packed on Ice N ___ Y ✓	***Rush?*** (Lab MUST Be Notified) ___ Same Day ....200% ___ Next Day ....100% ___ Two Day ....50% ___ Three Day 25%	Date Results Needed Email? ___No ___Yes FAX? ___No ___Yes	Template: Prelogin: TSR: PB: Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260 BTEX 40 mL Anber=HCL	Rem./Contaminant	Sample # (lab only)
RW4		GW		8-22-19	1300	2	X		-11
RW5		GW		8-22-19	1305	2	X		-12
IW2		GW		8-22-19	1315	2	X		-13
		GW							
		GW							
		GW							
		GW							

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other ______ RAD SCREEN: <0.5 mR/hr pH ______ Temp ______

Remarks: Flow ______ Other ______ Hold #

Relinquished by : (Signature) [signature]	Date: 8-22-19	Time: 15:35	Received by: (Signature) [signature]	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ SWA	Condition: (lab use only) OK
Relinquished by : (Signature) [signature]	Date: 8-22-19	Time: 17:30	Received by: (Signature) SWA	Temp: ASA °C 0.2-0.1=0.1 Bottles Received: 26	COC Seal Intact: ___Y ___N ✓ NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 8/23/19 Time: ~~0845~~ BF 0800	pH Checked: NCF:

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 18, 2019

Plains All American Pipeline - Entech

Sample Delivery Group:	L1158978
Samples Received:	11/08/2019
Project Number:	PAA12014
Description:	Vac to Jal#3
Site:	SRS - 2003-00117
Report To:	Kathleen Buxton 21 Waterway Ave., Suite 300 The Woodlands, TX 77380

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.

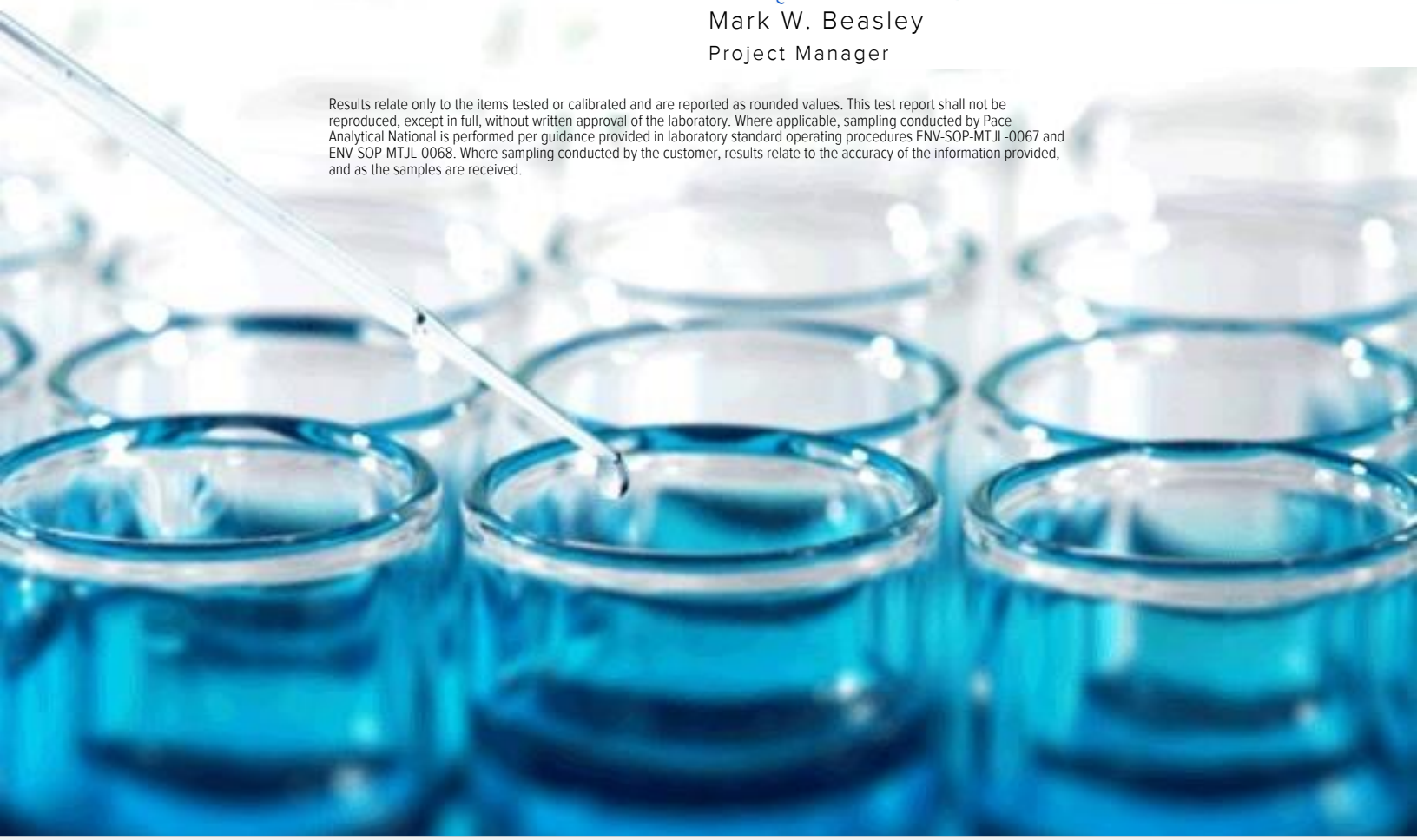


TABLE OF CONTENTS

MW2 L1158978-01 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 10:35 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 09:42	11/13/19 09:42	TJJ	Mt. Juliet, TN

MW3 L1158978-02 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 11:25 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 10:02	11/13/19 10:02	TJJ	Mt. Juliet, TN

MW4 L1158978-03 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 10:25 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 10:23	11/13/19 10:23	TJJ	Mt. Juliet, TN

MW5 L1158978-04 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 11:05 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 10:43	11/13/19 10:43	TJJ	Mt. Juliet, TN

MW6 L1158978-05 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 10:45 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 11:03	11/13/19 11:03	TJJ	Mt. Juliet, TN

MW7 L1158978-06 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 10:55 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 11:24	11/13/19 11:24	TJJ	Mt. Juliet, TN

MW8 L1158978-07 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 11:35 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 11:44	11/13/19 11:44	TJJ	Mt. Juliet, TN

MW9 L1158978-08 GW

Collected by: Chris Sanchez | Collected date/time: 11/06/19 11:15 | Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 12:05	11/13/19 12:05	TJJ	Mt. Juliet, TN

RW2 L1158978-09 GW

Collected by: Chris Sanchez
Collected date/time: 11/06/19 11:45
Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 12:26	11/13/19 12:26	TJJ	Mt. Juliet, TN

RW4 L1158978-10 GW

Collected by: Chris Sanchez
Collected date/time: 11/06/19 11:55
Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 12:46	11/13/19 12:46	TJJ	Mt. Juliet, TN

RW5 L1158978-11 GW

Collected by: Chris Sanchez
Collected date/time: 11/06/19 12:05
Received date/time: 11/08/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1379614	1	11/13/19 13:06	11/13/19 13:06	TJJ	Mt. Juliet, TN

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

Mark W. Beasley
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 09:42	WG1379614
Toluene	ND		0.00100	1	11/13/2019 09:42	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 09:42	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 09:42	WG1379614
(S) Toluene-d8	*97.5*		*80.0-120*		*11/13/2019 09:42*	WG1379614
(S) 4-Bromofluorobenzene	*90.8*		*77.0-126*		*11/13/2019 09:42*	WG1379614
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*11/13/2019 09:42*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 10:02	WG1379614
Toluene	ND		0.00100	1	11/13/2019 10:02	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 10:02	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 10:02	WG1379614
(S) Toluene-d8	*97.6*		*80.0-120*		*11/13/2019 10:02*	WG1379614
(S) 4-Bromofluorobenzene	*89.4*		*77.0-126*		*11/13/2019 10:02*	WG1379614
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*11/13/2019 10:02*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 10:23	WG1379614
Toluene	ND		0.00100	1	11/13/2019 10:23	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 10:23	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 10:23	WG1379614
(S) Toluene-d8	*92.8*		*80.0-120*		*11/13/2019 10:23*	WG1379614
(S) 4-Bromofluorobenzene	*88.1*		*77.0-126*		*11/13/2019 10:23*	WG1379614
(S) 1,2-Dichloroethane-d4	*99.0*		*70.0-130*		*11/13/2019 10:23*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 10:43	WG1379614
Toluene	ND		0.00100	1	11/13/2019 10:43	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 10:43	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 10:43	WG1379614
(S) Toluene-d8	*98.7*		*80.0-120*		*11/13/2019 10:43*	WG1379614
(S) 4-Bromofluorobenzene	*94.6*		*77.0-126*		*11/13/2019 10:43*	WG1379614
(S) 1,2-Dichloroethane-d4	*97.4*		*70.0-130*		*11/13/2019 10:43*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 11:03	WG1379614
Toluene	ND		0.00100	1	11/13/2019 11:03	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 11:03	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 11:03	WG1379614
(S) Toluene-d8	*95.9*		*80.0-120*		*11/13/2019 11:03*	WG1379614
(S) 4-Bromofluorobenzene	*88.3*		*77.0-126*		*11/13/2019 11:03*	WG1379614
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*11/13/2019 11:03*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 11:24	WG1379614
Toluene	ND		0.00100	1	11/13/2019 11:24	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 11:24	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 11:24	WG1379614
(S) Toluene-d8	*100*		*80.0-120*		*11/13/2019 11:24*	WG1379614
(S) 4-Bromofluorobenzene	*92.2*		*77.0-126*		*11/13/2019 11:24*	WG1379614
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*11/13/2019 11:24*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 11:44	WG1379614
Toluene	ND		0.00100	1	11/13/2019 11:44	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 11:44	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 11:44	WG1379614
(S) Toluene-d8	*96.1*		*80.0-120*		*11/13/2019 11:44*	WG1379614
(S) 4-Bromofluorobenzene	*91.7*		*77.0-126*		*11/13/2019 11:44*	WG1379614
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*11/13/2019 11:44*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 12:05	WG1379614
Toluene	ND		0.00100	1	11/13/2019 12:05	WG1379614
Ethylbenzene	ND		0.00100	1	11/13/2019 12:05	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 12:05	WG1379614
(S) Toluene-d8	*97.7*		*80.0-120*		*11/13/2019 12:05*	WG1379614
(S) 4-Bromofluorobenzene	*91.9*		*77.0-126*		*11/13/2019 12:05*	WG1379614
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*11/13/2019 12:05*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00105		0.00100	1	11/13/2019 12:26	WG1379614
Toluene	ND		0.00100	1	11/13/2019 12:26	WG1379614
Ethylbenzene	0.00744		0.00100	1	11/13/2019 12:26	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 12:26	WG1379614
(S) Toluene-d8	*96.2*		*80.0-120*		*11/13/2019 12:26*	WG1379614
(S) 4-Bromofluorobenzene	*89.5*		*77.0-126*		*11/13/2019 12:26*	WG1379614
(S) 1,2-Dichloroethane-d4	*99.4*		*70.0-130*		*11/13/2019 12:26*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00258		0.00100	1	11/13/2019 12:46	WG1379614
Toluene	ND		0.00100	1	11/13/2019 12:46	WG1379614
Ethylbenzene	0.0570		0.00100	1	11/13/2019 12:46	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 12:46	WG1379614
(S) Toluene-d8	*90.5*		*80.0-120*		*11/13/2019 12:46*	WG1379614
(S) 4-Bromofluorobenzene	*87.6*		*77.0-126*		*11/13/2019 12:46*	WG1379614
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*11/13/2019 12:46*	WG1379614

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	11/13/2019 13:06	WG1379614
Toluene	ND		0.00100	1	11/13/2019 13:06	WG1379614
Ethylbenzene	0.00252		0.00100	1	11/13/2019 13:06	WG1379614
Total Xylenes	ND		0.00300	1	11/13/2019 13:06	WG1379614
(S) Toluene-d8	*94.6*		*80.0-120*		*11/13/2019 13:06*	WG1379614
(S) 4-Bromofluorobenzene	*88.9*		*77.0-126*		*11/13/2019 13:06*	WG1379614
(S) 1,2-Dichloroethane-d4	*99.8*		*70.0-130*		*11/13/2019 13:06*	WG1379614

Method Blank (MB)

(MB) R3472695-2 11/13/19 05:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*94.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3472695-1 11/13/19 04:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00444	88.8	70.0-123	
Ethylbenzene	0.00500	0.00468	93.6	79.0-123	
Toluene	0.00500	0.00485	97.0	79.0-120	
Xylenes, Total	0.0150	0.0131	87.3	79.0-123	
(S) Toluene-d8			*95.8*	*80.0-120*	
(S) 4-Bromofluorobenzene			*87.8*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*97.0*	*70.0-130*	

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 Reporting Limit (or MDL where applicable).
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 Reporting Limit (or MDL where applicable).
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.

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

State Accreditations

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

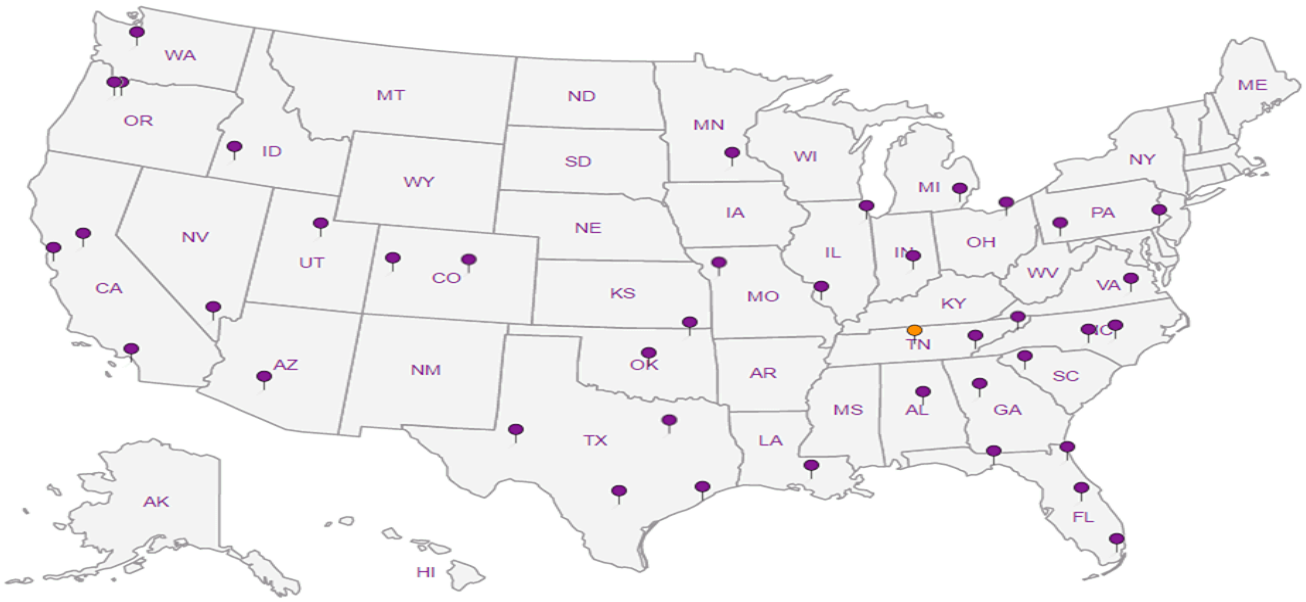
Third Party Federal Accreditations

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

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

Our Locations

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



Plains All American Pipeline - Entech

21 Waterway Ave., Suite 300
The Woodlands, TX 77380

Billing Information:
Accounts Payable
333 Clay St., Ste 1600
Houston, TX 77002

Pres Chk

Report to: Kathleen Buxton

Email To: kathleen.buxton@entechservice.com, cjbryant@paalp.com

Project Description: Vac to Jal#3

City/State Collected: EUNICE, N.M.

Phone: 979-997-2338
Fax:

Client Project # PAA12014

Lab Project # PLAINSENT-VAC3

Collected by (print): CHRIS SANCHEZ

Site/Facility ID # SRS - 2003-00117

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y ✓

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

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
MW2		GW		11-6-19	1035	2		X		-01
MW3		GW			1125					02
MW4		GW			1025					03
MW5		GW			1105					04
MW6		GW			1045					05
MW7		GW			1055					06
MW8		GW			1135					07
MW9		GW			1115					08
RW2		GW			1145					09
RW4		GW		11-6-19	1155					10

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

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

L# L1158978

1011

Acctnum: PLAINSENT
Template: T94128
Prelogin: P707768
TSR: 134 - Mark W. Beasley
PB:
Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 1338 3338 6024

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11-6-19	12:00	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11-7-19	8:41	Flowers Hand Pace
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
Flowers Hand Pace			

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.4 °C Bottles Received: 22

Date: 11-8-19 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Plains All American Pipeline - Entech 21 Waterway Ave., Suite 300 The Woodlands, TX 77380	Billing Information: Accounts Payable 333 Clay St., Ste 1600 Houston, TX 77002	Pres Chk	Chain of Custody Page 2 of 2 Pace Analytical® National Center for Testing & Innovation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
Report to: Kathleen Buxton	Email To: kathleen.buxton@entechservice.com, cjbryant@paalp.com		
Project Description: Vac to Jal#3	City/State Collected: Eunice NM		L# L1158978
Phone: 979-997-2338 Fax:	Client Project # PAA12014	Lab Project # PLAINSENT-VAC3	Table #
Collected by (print): Chris Sanchez	Site/Facility ID # SRS - 2003-00117	P.O. #	Acctnum: PLAINSENT Template: T94128 Prelogin: P707768 TSR: 134 - Mark W. Beasley PB: Shipped Via:
Collected by (signature): [signature] Immediately Packed on Ice N ___ Y ✓	*Rush?* (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # Date Results Needed	

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	V8260BTEX 40mlAmb-HCl								Remarks	Sample # (lab only)
RW5		GW		11-6-19	1205	2		X									11
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															

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

Remarks:

pH _______ Temp _______

Flow _______ Other _______

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

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (circled) HCL / MeoH TBR	
[signature]	11-6-19	12:00	[signature]		
Relinquished by : (Signature)	Date: 11-7-19	Time: 8:41	Received by: (Signature) Hillcott Hamlow Pace	Temp: °C 1.6 1-1 = .5 (?) Bottles Received: 22	If preservation required by Login: Date/Time
Relinquished by : (Signature) [signature] Pace	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11-8-19 Time: 0845	Hold:	Condition: NCF / OK (circled)

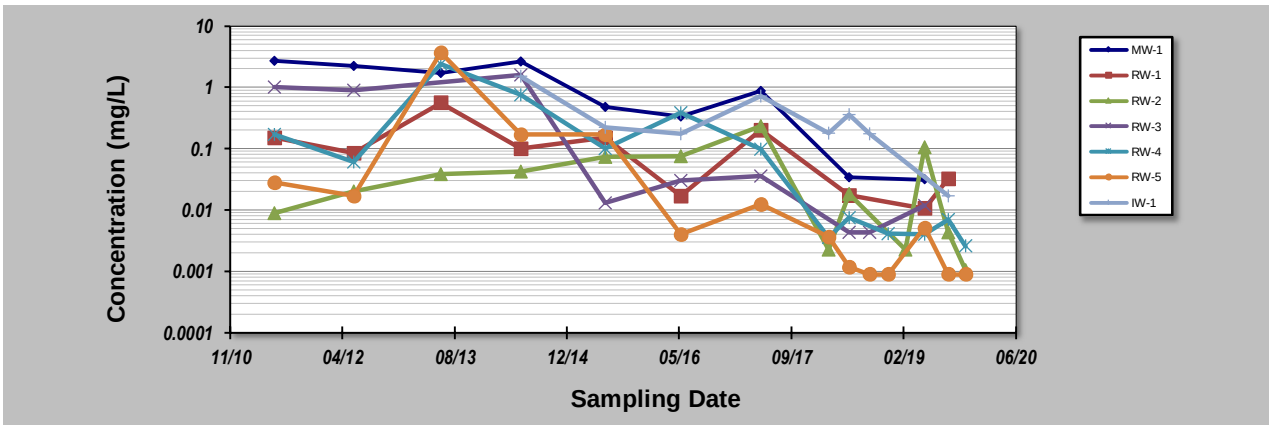
APPENDIX B

Mann-Kendall Trend Test

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	12-Feb-20	Job ID:	PAA12014
Facility Name:	Plains - Vacuum to Jal #3	Constituent:	Benzene
Conducted By:	PVS	Concentration Units:	mg/L

Sampling Point ID:	MW-1	RW-1	RW-2	RW-3	RW-4	RW-5	IW-1
Sampling Event	Sampling Date	BENZENE CONCENTRATION (mg/L)						
1	2-Jun-11	2.7	0.15	0.0089	1	0.17	0.028	
2	22-May-12	2.2	0.084	0.020	0.89	0.06	0.017	
3	13-Jun-13	1.7	0.56	0.038		2.4	3.7	
4	6-Jun-14	2.6	0.1	0.042	1.6	0.75	0.17	1.5
5	15-Jun-15	0.48	0.15	0.073	0.013	0.1	0.17	0.22
6	18-May-16	0.336	0.017	0.0752	0.0302	0.389	0.00405	0.174
7	10-May-17	0.877	0.201	0.234	0.0358	0.0982	0.0123	0.712
8	7-Mar-18			0.00223		0.00354	0.00364	0.178
9	5-Jun-18	0.0344	0.0172	0.0181	0.00434	0.00757	0.00117	0.36
10	6-Sep-18				0.00435		***0.0009***	0.175
11	28-Nov-18					0.00407	***0.0009***	
12	13-Feb-19			0.00223				
13	8-May-19	0.0314	0.0107	0.106	0.0117	***0.004***	0.00516	
14	22-Aug-19		0.0324	0.00435		0.00699	***0.0009***	0.0171
15	6-Nov-19			0.00105		0.00258	***0.0009***	
16								
17								
18								
19								
20								
Coefficient of Variation:		0.90	1.24	1.36	1.52	2.16	3.34	1.16
Mann-Kendall Statistic (S):		-28	-16	-9	-20	-48	-60	-14
Confidence Factor:		99.9%	90.7%	68.4%	97.8%	99.9%	>99.9%	94.6%
Concentration Trend:		Decreasing	Prob. Decreasing	No Trend	Decreasing	Decreasing	Decreasing	Prob. Decreasing



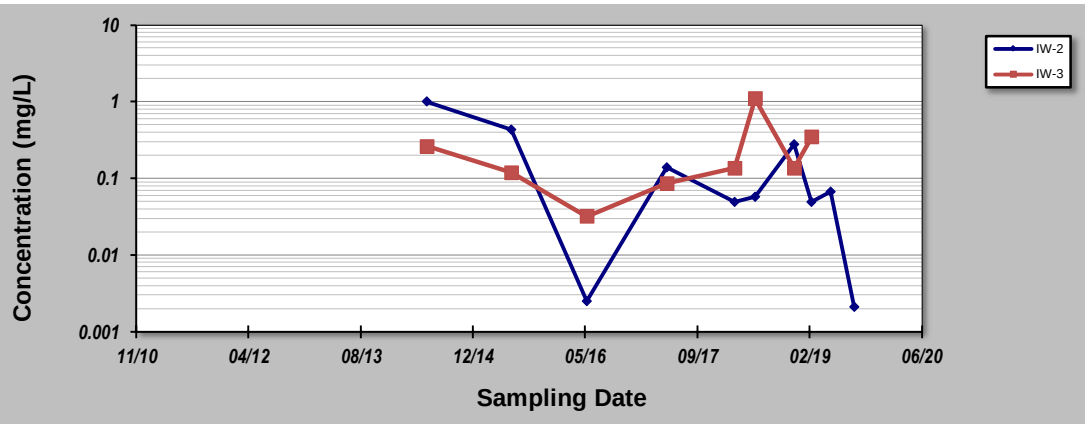
Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.
4. All concentrations in milligrams per liter (mg/L)
5. Nondetectable concentrations were indicated at levels less than the MDL (i.e., <0.001, <0.005) and listed in bold red and italisized.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	12-Feb-20	Job ID:	PAA12014
Facility Name:	Plains - Vacuum to Jal #3	Constituent:	Benzene
Conducted By:	PVS	Concentration Units:	mg/L

Sampling Point ID:	IW-2	IW-3					
Sampling Event	Sampling Date	BENZENE CONCENTRATION (mg/L)						
1	2-Jun-11							
2	22-May-12							
3	13-Jun-13							
4	6-Jun-14	1	0.26					
5	15-Jun-15	0.43	0.12					
6	18-May-16	0.0025	0.0319					
7	10-May-17	0.138	0.0862					
8	7-Mar-18	0.0494	0.137					
9	5-Jun-18	0.0576	1.1					
10	6-Sep-18							
11	28-Nov-18	0.277	0.137					
12	13-Feb-19	0.0494	0.347					
13	8-May-19	0.0665						
14	22-Aug-19	0.0021						
15	6-Nov-19							
16								
17								
18								
19								
20								
Coefficient of Variation:		1.49	1.25					
Mann-Kendall Statistic (S):		-18	9					
Confidence Factor:		93.4%	83.2%					
Concentration Trend:		Prob. Decreasing	No Trend					



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.
4. All concentrations in milligrams per liter (mg/L)