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TALON LPE

2019 ANNUAL GROUNDWATER MONITORING REPORT
8” MOORE TO JAL #2

LEA COUNTY, NEW MEXICO
SRS #2002—10273
NMOCD REF. # AP-92

Prepared For:
PLAINS MARKETING, L.P.
333 CLAY STREET, SUITE 1600
HOUSTON, TEXAS

Prepared By:
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408 Texas Avenue
Artesia, NM 88210

January 30, 2020

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TALON/LPE PROJECT NO. 700376.045.04

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NMOCD - New Mexico Oil Conservation Division
NMSLO – New Mexico State Land Office

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APPENDICES

1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The 8" Moore to Jal #2 (site) is located approximately 9.2 miles southeast of Lovington in Unit Letter J, Section 16, Township 17 South and Range 37 East in Lea County, New Mexico, on property owned by the State of New Mexico. The site is located within the West Lovington Oil Field at 32º 49' 56.61" N, 103º 15' 08.47" W. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from an EOTT Energy Pipeline (EOTT) steel pipeline on October 22, 2002. Subsequently, EOTT changed its name to Link Energy in October 2003, and Plains Marketing, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated that 25 barrels (bbls) of crude oil were released. Approximately 5,794 square feet of surface area was impacted by the release.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains to assume remediation activities at the site. Remediation activities at the site were previously conducted by EPI.

1.2 Site Geology

The surface deposits in Lea County are composed of Blackwater Draw (Illinoian) sediments, Ogallala sediments and undivided Quaternary alluvium, which is also termed 'cover sands'. The soil in the upper two (2) feet at the site is composed of gravelly loam that consists of 43% sand, 18% clay and 40% silt and also contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone which has undergone calichification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern Rockies and consists mostly of eolian sediments, silty to very fine sand or loess. During the middle to late Miocene, the Ogallala was deposited by fluvial mechanism as paleovalley fill composed of gravelly to sandy braided stream deposits that trended west to east across the Southern High Plains. During the late Miocene the west to east drainage was diverted (captured) by the Pecos River. Subsequently, the Pecos River basin has experienced deflation, which facilitated eolian deposition on the Southern High Plains during the Pliocene.

1.3 Previous Environmental Investigations

Currently, there are a total of 23 groundwater monitor wells existing in the vicinity of the release (see Figure 1). With New Mexico Oil Conservation Division (NMOCD) approval and landowner concurrence, groundwater monitor well MW-1 was installed in July 2004. Subsequently, groundwater monitor wells MW-2, MW-3, and MW-4 were installed in October 2004, monitor wells MW-6 through MW-13 were installed in November 2007, MW-14 through MW-16 were installed in March of 2010 and MW-17 through MW-21 were installed in August of 2010. Replacement wells MW-3A and MW-4A, and down-gradient

monitor wells MW-22 and MW-23 were installed in December of 2013.

Phase-separated hydrocarbon (PSH) recovery operations have been performed at the site since 2004. Currently, there are five (5) total fluid pumps in operation at the site used to recover PSH. Table 1, which summarizes historical groundwater and PSH gauging, is provided in Appendix B.

A transfer system was installed during the year 2011 that is designed to pump recovered groundwater from the site to the Rocky Smith SWD Systems, State 'E' #23 salt water disposal (SWD) (NMOCD # 307219) facility, thereby eliminating the need to haul water to a disposal facility with a vacuum truck. The system is composed of a three (3) inch HDPE line that was installed (slip-lined) into the out of service Moore to Jal eight (8) inch pipeline from the site through the Moore to Jal #1 site to the C.S. Caylor site, where it is connected to the HDPE line that runs from the Caylor site to the afore referenced SWD. A five (5) HP transfer pump is used to impel the water down the HDPE line. Two (2) Mobile dual-phase extraction (MDPE) events were conducted on a quarterly basis in 2019 beginning in August.

1.4 Regulatory Framework

Groundwater analytical data collected from this site is evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards outlined in the table below.

(NMWQCC) groundwater standards	
Compound	**mg/L**
Benzene	0.010
Toluene	0.750
Ethylbenzene	0.750
Total Xylenes	0.620
PAH (Naphthalene)	0.030
PAH (Benzo[a]pyrene)	0.007

The subsequent sections of this report provide summaries of the groundwater monitoring activities that were conducted at the subject site during the year 2019 as well as analytical results from each groundwater sampling event. Cumulative analytical results for the four (4) 2019 sampling events are summarized in Table 2 and 3, in Appendix B, and Figures 1, 2a through 2d, and 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C.

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during the year 2019. The primary function of groundwater monitoring activities is to collect depth to fluid measurements and to collect groundwater samples from monitor wells for laboratory analysis. The objective of groundwater monitoring is to evaluate the status of the dissolved-phase and PSH plumes and verify the effectiveness of the remediation system as to inhibiting plume migration, reducing the volume of PSH impacting the groundwater and determining if modifications to the remediation system would improve its overall performance and efficiency.

A synopsis of analytical results for the four (4) groundwater monitoring events is located in Table 2, in Appendix B, and annotated in map form on Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C.

2.1 Groundwater Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2019. The events occurred on: March 24, June 19, September 19, and December 16.

During the March 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from five (5) monitor wells due to the wells being dry (MW-1, MW-2, and MW-14 through MW-16). Details of the gauging, purging, and sampling activities are presented below in Section 2.2.

During the June 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to the wells being dry (MW-2, and MW-14 through MW-16). A groundwater sample was not collected from MW-1 because the well was purged dry without recovery. Details of the gauging, purging, and sampling activities are presented below in Section 2.2.

During the September 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to the wells being dry (MW-2, and MW-14 through MW-16). A groundwater sample was not collected from MW-1 because the well was purged dry without recovery. Details of the gauging, purging, and sampling activities are presented below in Section 2.2.

During the December 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to being dry (MW-2, and MW-14 through MW-16). A groundwater sample was not collected from MW-1 because the well was purged dry without recovery. Details of the gauging, purging, and sampling activities are presented below in Section 2.2.

2.2 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all monitor wells were measured with an oil/water interface probe to determine static water levels and PSH thicknesses, if present. The data collected from measurements were used to construct groundwater gradient maps and PSH thickness maps. Table 1 – Summary of Historical Fluid Level Measurements contains all depth to fluid data collected during 2019.

Subsequent to gauging, all monitor wells were purged using a 12-volt submersible pump equipped with vinyl tubing. The pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was contained in 55-gallon drums. After the groundwater monitoring event, all retained water was deposited into the on-site tank and later removed via the site transfer system to the SWD.

Groundwater samples were collected from all monitor wells not impacted with PSH using dedicated disposable polyethylene bailers. Groundwater samples were not collected from wells impacted with PSH. All samples were contained in appropriately preserved laboratory supplied sample vials required for the requested analysis. The samples were maintained on ice, in the custody of Talon personnel, until delivery to Xenco Laboratories in Midland, Texas for analysis. The groundwater samples collected during 2019 were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. Groundwater samples collected from nine wells during the March 2019 event were analyzed for polycyclic aromatic hydrocarbons PAH by EPA Method 8270C.

2.3 Phase Separated Hydrocarbon Recovery

Prior to October 2008, a mobile recovery trailer with total fluids pumps was mobilized to the site on a weekly basis to recover PSH from monitor wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, and MW-9.

On October 7, 2008, a permanent system was installed utilizing two (2) AP-4 pneumatic total fluid pumps in monitor wells MW-1 and MW-7 and four (4) skimmers in monitor wells MW-3, MW-5, MW-6, and MW-9 to recover PSH and to inhibit migration of the PSH plume. In 2013, the skimmer pumps in MW-5 and MW-6 were replaced with total fluids pumps. In 2014, the skimmer pump in MW-9 was replaced with a total fluids pump. The system of total fluids pumps are powered by a single-phase, 230-volt, 7.5 HP two-stage reciprocating air compressor. Fluid recovered by the pumps is retained in a 6,250-gallon poly tank. The tank is equipped with a high level shut off switch to prevent overflow and it is located within a secondary containment compound that is outfitted with a poly-liner.

Recovered PSH is periodically removed from the recovery tank with a vacuum truck. Recovered groundwater was transported to an approved NMOCD disposal facility via the water transfer system, and removed PSH was re-introduced to the Plains' pipeline system at the Plains operated Lea Station.

Currently, the recovered fluids upon reaching pre-determined level within the holding tank engage a head pressure switch which in turn operates a fluid transfer pump. When the pump is engaged the recovered fluids are transferred to a 4-inch HDPE line shared with recovered PSH and water from the Moore to Jal #1 and C.S. Caylor groundwater recovery systems. A five (5) HP transfer pump then impels the fluids to the Apollo SWD System for disposal.

Talon personnel performed a minimum of weekly maintenance to the remediation system to ensure efficient operation, to optimize PSH recovery and to minimize down time. The poly tank is gauged weekly to monitor PSH recovery volume.

During 2019, the quarterly PSH and groundwater recovery totals from the system are as follows:

- 1st Quarter - 0 bbls crude oil and 671 bbls of groundwater
- 2nd Quarter - 0 bbls crude oil and 903 bbls of groundwater
- 3rd Quarter - 0 bbls crude oil and 1,456 bbls of groundwater
- 4th Quarter – 0 bbls crude oil and 1,669 bbls of groundwater

In addition to system recovery, two (2) MDPE events, in which liquid and vapor PSH were recovered, were conducted on site during 2019. The MDPE event recovery totals are as follows:

- August 14, 2019 – 0.4 bbls vapor, 0 bbl liquid, 5.4 bbls groundwater
- December 14, 2019 – 1.52 bbls vapor, 0 bbls liquid, 3.9 bbls groundwater

During 2019, a total of 1.92 bbls of crude oil and a total of 4,708 bbls of groundwater were recovered by the PSH recovery system. Approximately 230.51 bbls of crude oil have been recovered at the subject site since PSH recovery activities were initiated.

3.0 GROUNDWATER AND MONITORING RESULTS

The results of the laboratory analysis are summarized in Table 2 – Summary of Historical Groundwater Analytical Data in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C.

3.1 Groundwater Monitoring Results

The sections that follow present the results from the four (4) groundwater monitoring events conducted at the subject site.

3.1.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala Aquifer underlies an area of about 29,000 square miles in western Texas and eastern New Mexico, including all or part of 31 counties in Texas and six (6) counties in New Mexico.

The Ogallala Aquifer is generally unconfined and the potentiometric surface generally mimics the topography with the regional flow direction being from the northwest to the southeast. The mean regional gradient is 15 feet per mile and the typical groundwater velocity averages seven inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%.

The Ogallala Aquifer has experienced acute depletion from extensive irrigation and urban demand, which have exceeded the average annual recharge rate. Recharge of the Ogallala Aquifer on the Southern High Plains occurs predominately from rainfall runoff that accumulates in ephemeral streams and playa lakes as well as direct recharge in areas that contain permeable soils such as sand hills. Recharge rates vary depending on mechanism, but averages from zero (0) to 1.6 inches per year.

The composition of Ogallala groundwater is defined as mixed-cation-HCO_3, therefore, Ogallala groundwater is considered hard. Problems with scale have occurred with residential and commercial water systems that use Ogallala groundwater and often treatment strategies are employed to reduce the effects of scale. The typical total dissolved solids of Ogallala groundwater in the Hobbs-Lovington area is generally less than 1,000 mg/L (ppm) in areas not impacted by oil-field brines. The pH of Ogallala water averages 7.3.

3.1.2 Groundwater Gradient and Flow Direction

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2019. The results of the fluid level measurements are summarized in Table 1 - Summary of Historical Fluid Level Measurements in Appendix B.

The collected data was used to construct potentiometric surface maps in order to interpret the groundwater gradient and flow direction. The maps, designated Figures 2a through 2d are presented in Appendix A.

Potentiometric surface maps were constructed from each of the four (4) of the water level measurement data/sets:

- March 24, 2019
- June 19, 2019
- September 9, 2019
- December 16, 2019

These maps are Figures 2a, 2b, 2c, and 2d, respectively, and are presented in Appendix A.

The potentiometric surface map for March 24, 2019 is constructed using water level elevations from all wells. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.0035 feet/foot.

The potentiometric surface map for June 19, 2019 is constructed using water level elevations from all wells. The water level elevations exhibit a general groundwater direction of flow to the south-southeast with an approximate gradient of 0.0041 feet/foot.

The potentiometric surface map for September 9, 2019 is constructed using water level elevations from all wells. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.0034 feet/foot.

The potentiometric surface map for December 16, 2019 is constructed using water level elevations from all wells. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.0033 feet/foot.

Groundwater elevations at the subject site declined approximately 0.33 feet for the year, which is consistent with the regional declining trend of groundwater levels in the Ogallala Aquifer.

3.1.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thicknesses of PSH during the four (4) groundwater monitoring events. This will be denoted in Table 1 - Summary of Historical Fluid Level Measurements in Appendix B. The following summarizes the status of the PSH thicknesses observed during the four (4) groundwater monitoring events:

- In March 2019, PSH was not observed in any monitor wells.
- In June 2019, PSH was not observed in any monitor wells.
- In September 2019, PSH was not observed in any monitor wells.
- In December 2019, PSH was not observed in any monitor wells.

In addition to potentiometric surface maps, isopleth maps were prepared depicting the measured PSH thicknesses and PSH plume geometry. PSH plume delineation and thickness maps are presented in Appendix A as Figures 3a through 3d. Currently, no PSH is detected. PSH recovery operations have been performed at the site since 2004. Currently, there are a

total of five (5) total fluid pumps in operation at the site. A summary of the historical groundwater and PSH gauging results is provided in Table 1 in Appendix B.

3.1.4 Groundwater Analytical Results

During the March 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from five (5) monitor wells due to the wells being dry (MW-1, MW-2, and MW-14 through MW-16).

Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory method detection limit (MDL) in wells (MW-20, MW-22, and MW-23) to 0.645 mg/L in MW-6. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-5, MW-6, MW-7, MW-9.
- Toluene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-8, MW-10 through MW-13, MW-17, MW-18, and MW-20 through MW-23) to 0.106 mg/L in MW-6. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-10, MW-11, MW-17, MW-18, MW-20, MW-22 and MW-23) to 0.0378 mg/L in MW-9. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.0926 mg/L in MW-6. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.
- Naphthalene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, and MW-22) to 0.000416 mg/L in MW-23. The naphthalene concentrations did not exceed the NMWQCC groundwater standard of 0.030 mg/L in any wells sampled.
- Benzo(a)pyrene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-7 through MW-8, MW-18, MW-22, and MW-23), to appearing in trace amounts only in MW-9. The benzo(a)pyrene concentrations did not exceed the NMWQCC groundwater standard of 0.007 mg/L this quarter.
- PAH constituents did not appear in MW-3A and MW-4A in the past two years, therefore these wells will be dropped from future PAH sampling events.

During the June 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to the wells being dry (MW-2, and MW-14 through MW-16). Groundwater sample was not collected from MW-1 because the well was purged dry.

Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in wells (MW-10, MW-12, MW-17 through MW-19, and MW-21 through MW-23) to 0.384 mg/L in MW-9. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-3A, MW-5, MW-6, MW-7, and MW-9.
- Toluene concentrations ranged from less than the laboratory MDL in wells (MW-7, MW-8, MW-11 through MW-13, and MW-17 through MW-23) to 0.0428 mg/L in MW-3A. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells (MW-4A, MW-7, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.0654 mg/L in MW-9. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in wells (MW-4A, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.109 mg/L in MW-9. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.

During the September 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to the wells being dry (MW-2, and MW-14 through MW-16). Groundwater sample was not collected from MW-1 because the well was purged dry.

Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.478 mg/L in MW-9. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-6, MW-7, and MW-9.

- Toluene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW4A, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.0406 mg/L in MW-9. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-5, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.0513 mg/L in MW-9. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-5, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.221 mg/L in MW-9. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.

During the December 2019 event, groundwater samples were collected from eighteen (18) monitor wells: MW-3A, MW-4A, MW-5 through MW-13, and MW-17 through MW-23. Groundwater samples were not collected from four (4) monitor wells due to being dry (MW-2, and MW-14 through MW-16). Groundwater sample was not collected from MW-1 because the well was purged dry.

Laboratory analytical results of the groundwater samples collected exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-7, MW-8, MW-12, MW-13, MW-20, MW-21, and MW-23) to 0.224 mg/L in MW-9. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-6 and MW-9.
- Toluene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A. MW-7, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.00580 mg/L in MW-9. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-5, MW-7, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.0616 mg/L in MW-9. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled during the quarter.
- Xylene concentrations ranged from less than the laboratory MDL in wells (MW-3A, MW-4A, MW-7, MW-8, MW-10 through MW-13, and MW-17 through MW-23) to 0.138 mg/L in MW-9. The xylene concentration did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells.

The results of the BTEX analysis are summarized in Table 2 – Summary of Historical Groundwater Analytical Results – BTEX and results of the PAH analyses are summarized in Table 3 – Summary of Historical Groundwater Analytical Results – PAH Supplement in Appendix B. Laboratory analytical data reports and chain of custody documentation for all samples are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the 8" Moore to Jal #2 site in 2019 and provides recommendations for future corrective actions.

4.1 Summary of Findings

- The groundwater flow direction is to the south-southeast at an average gradient of 0.0035 feet per foot.
- PSH was not observed in any monitor wells during 2019.
- During 2019, wells MW-3A, MW-5, MW-6, MW-7, and MW-9 exhibited benzene concentrations in excess of NMWQCC groundwater standards. The BTEX plume is well defined.
- 1.92 bbls of PSH were extracted during the year 2019 via MDPE recovery.

4.2 Recommendations

Based upon the results of the quarterly groundwater monitoring and PSH/groundwater recovery efforts, Talon proposes the following actions:

- Continue operation and maintenance of the groundwater recovery system.
- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Continue PAH sampling in the first quarter of 2020.
- Request NMOCD allow a modification (reduction) in the sampling frequency from monitoring wells that have exhibited no evidence of contamination above regulatory limits for eight (8) consecutive quarters. Specifically, we are requesting that wells MW-11, MW-12, MW-17, MW-18, MW-19, and MW-22 be sampled semi-annually; and that wells MW-10, MW-20, and MW-21 be sampled on an annual basis only.

APPENDIX A

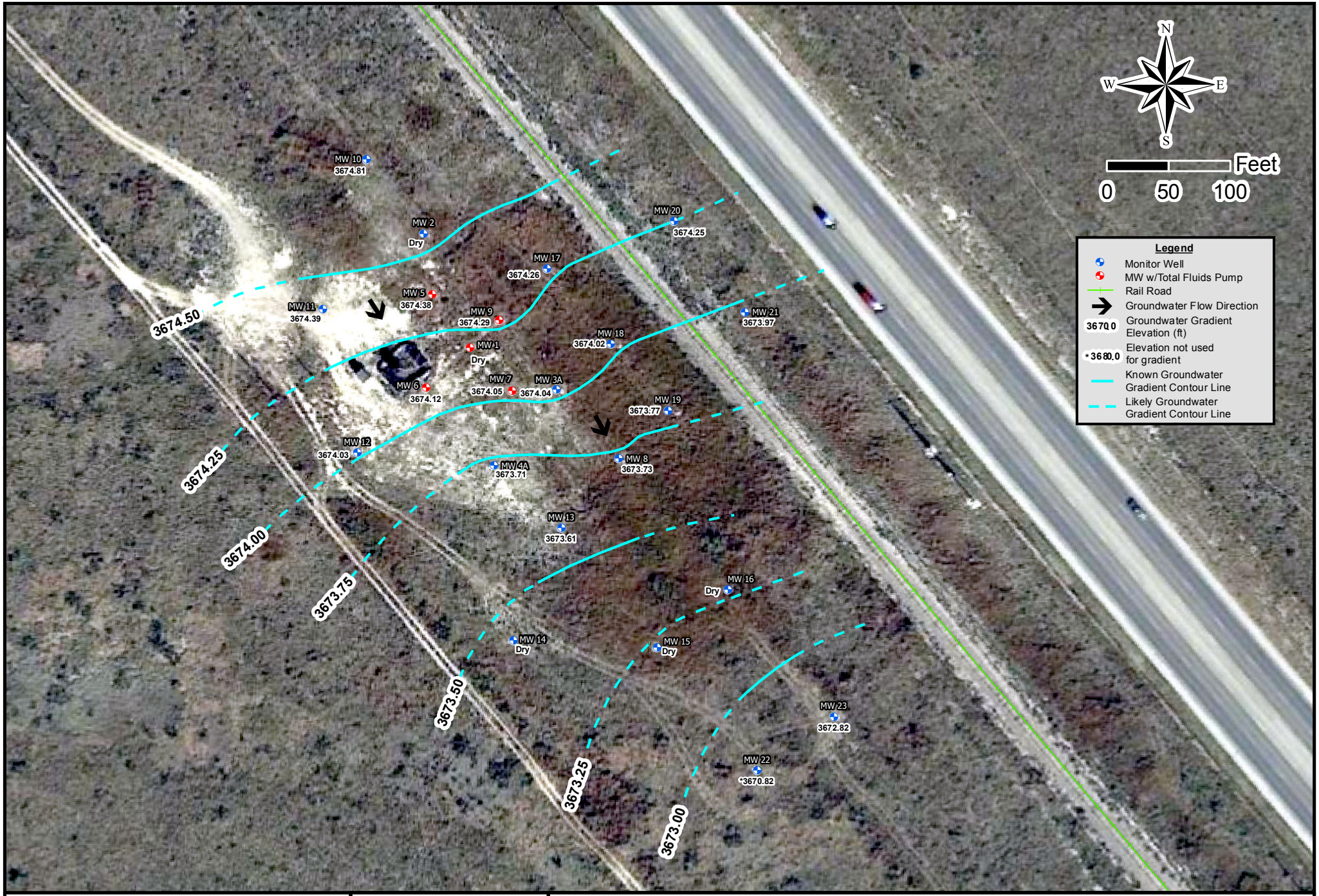
Figures

TALON LPE

Drafted: 2/26/2018
1 in = 100 ft
Drafted By: IJM

8" Moore to Jal #2
SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico
Figure 1 - Site Plan

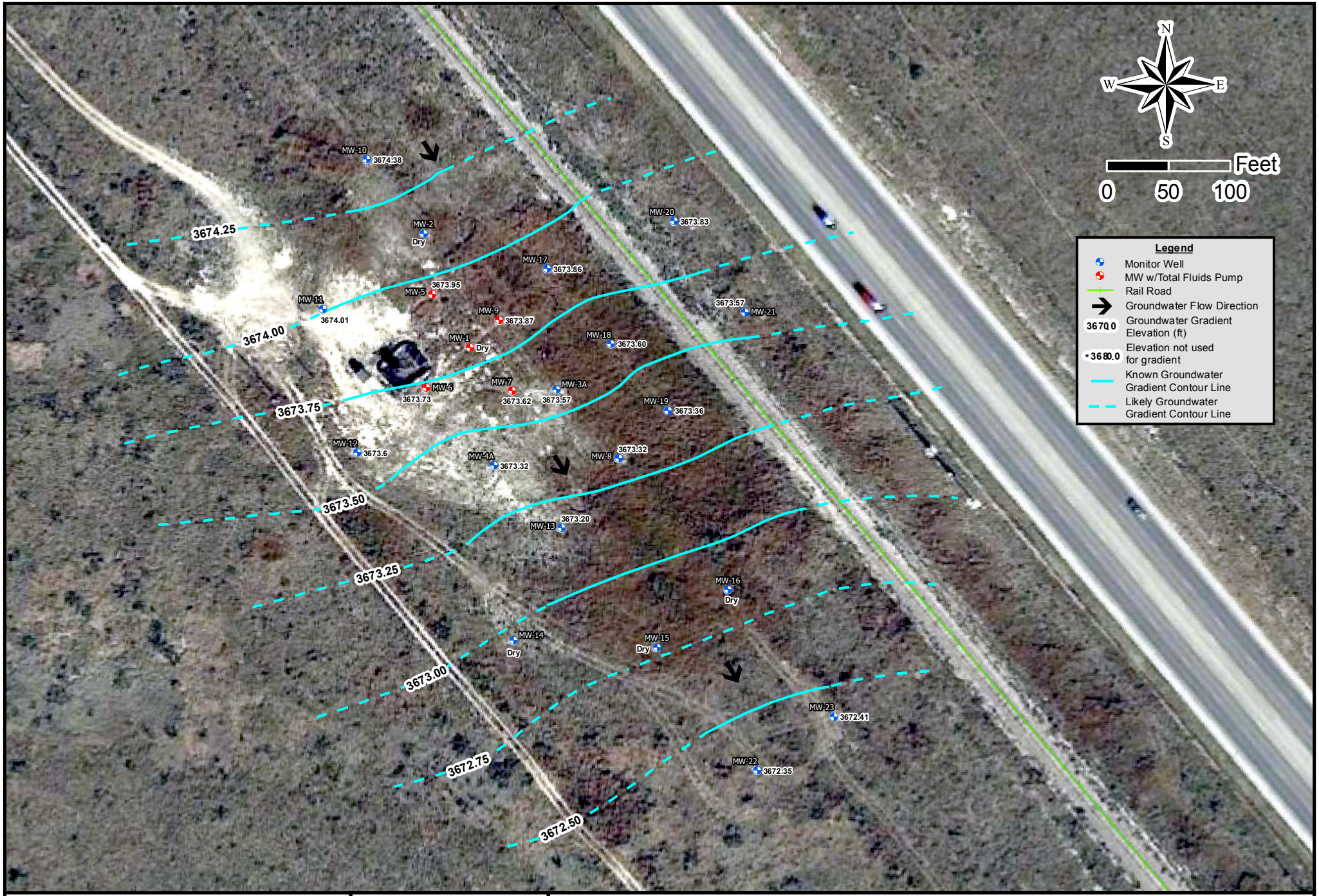
TALON LPE	Drafted: 03/21/2019 1 in = 100 ft Drafted By: IJM	8" Moore to Jal #2 SRS # 2002-10273, NMOCD REF. # AP-92 9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico Figure 2a - Groundwater Gradient Map (03/24/2019)



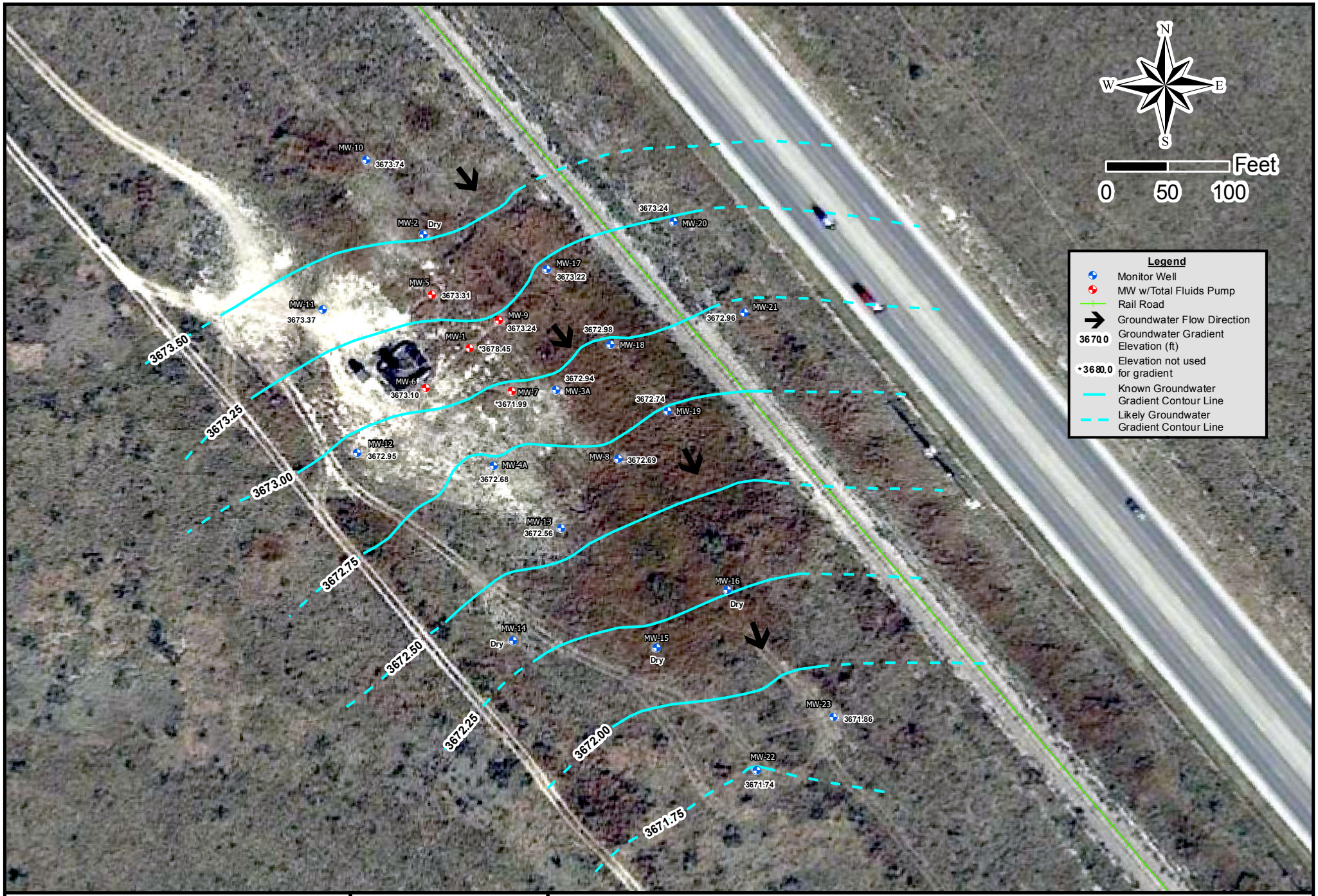
TALON LPE

Date: 10/22/2019
1 in = 100 ft
Drafted By: JAI

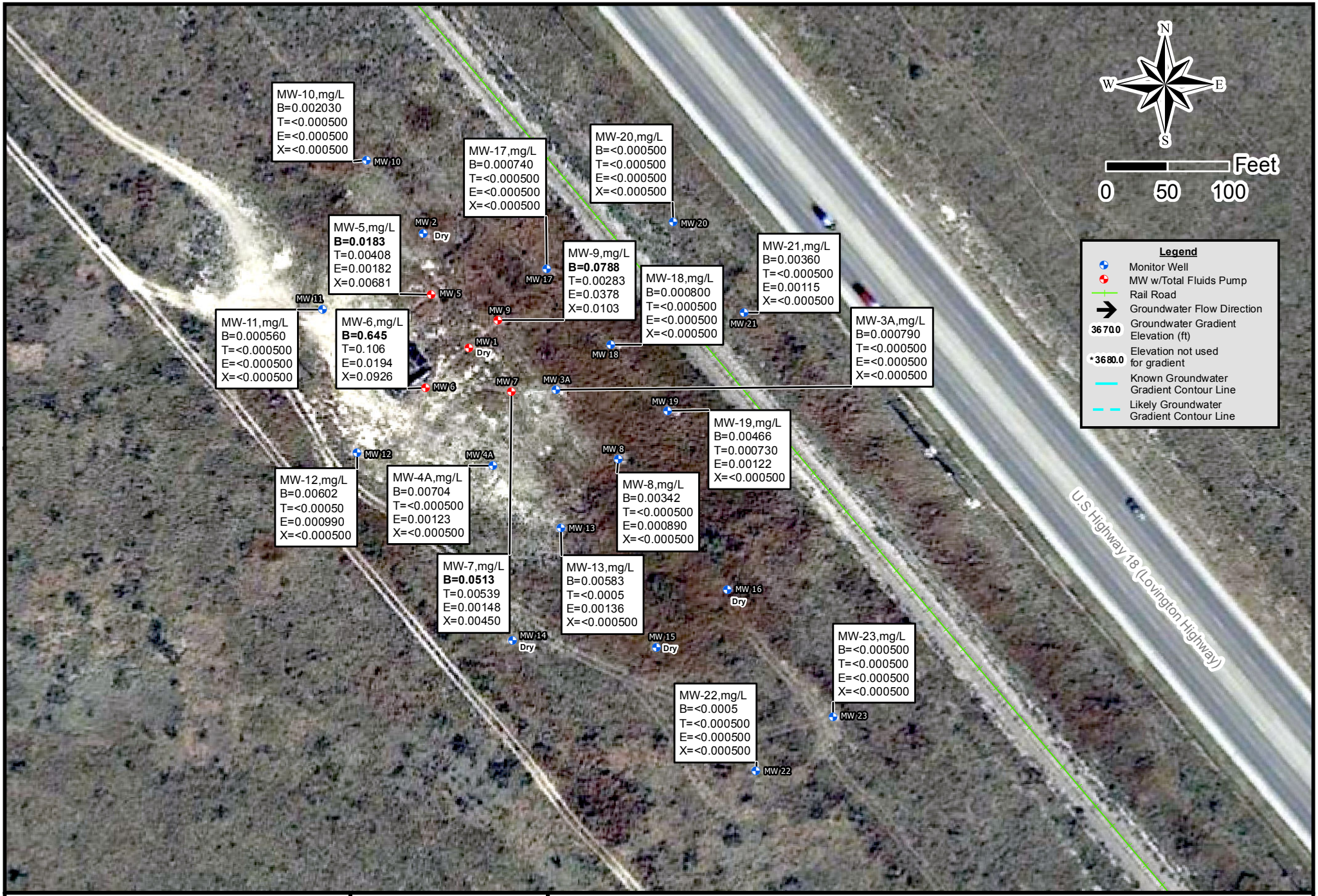
8" Moore to Jal #2
SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico
Figure 2b - Groundwater Gradient Map (06/19/2019)



TALON LPE	Date: 10/22/2019 1 in = 100 ft Drafted By: JAI	8" Moore to Jal #2 SRS # 2002-10273, NMOCD REF. # AP-92 9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico Figure 2c - Groundwater Gradient Map (09/09/2019)



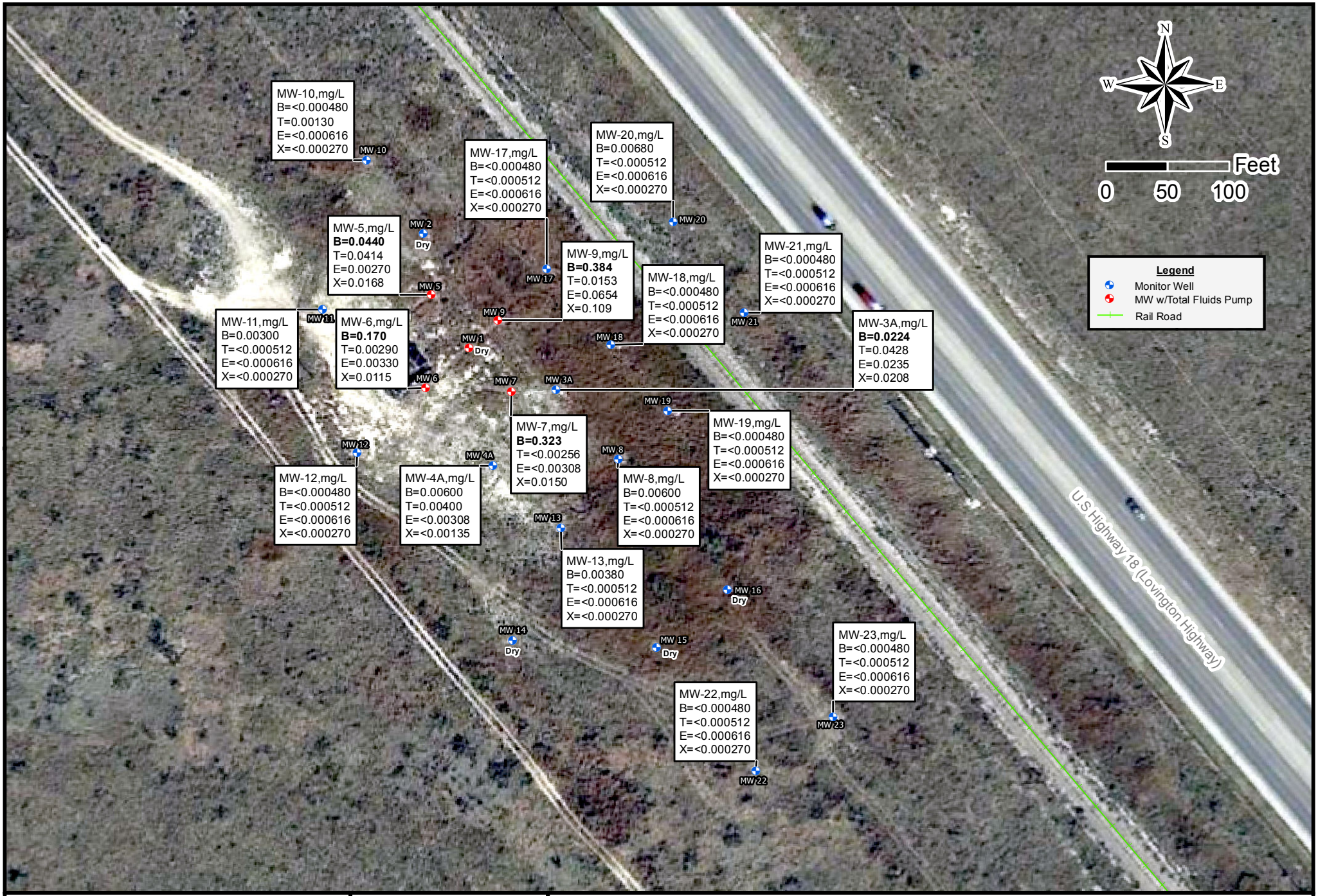
TALON LPE	Date: 1/20/2020 1 in = 100 ft Drafted By: JAI	8" Moore to Jal #2 SRS # 2002-10273, NMOCD REF. # AP-92 9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico Figure 2d - Groundwater Gradient Map (12/16/2019)



TALON LPE

Date: 7/22/2019
1 in = 100 ft
Drafted By: IJM

8" Moore to Jal #2
SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico
Figure 3a - Groundwater Concentration Map - (03/24/2019)



TALON LPE

Date: 7/11/2019

1 in = 100 ft

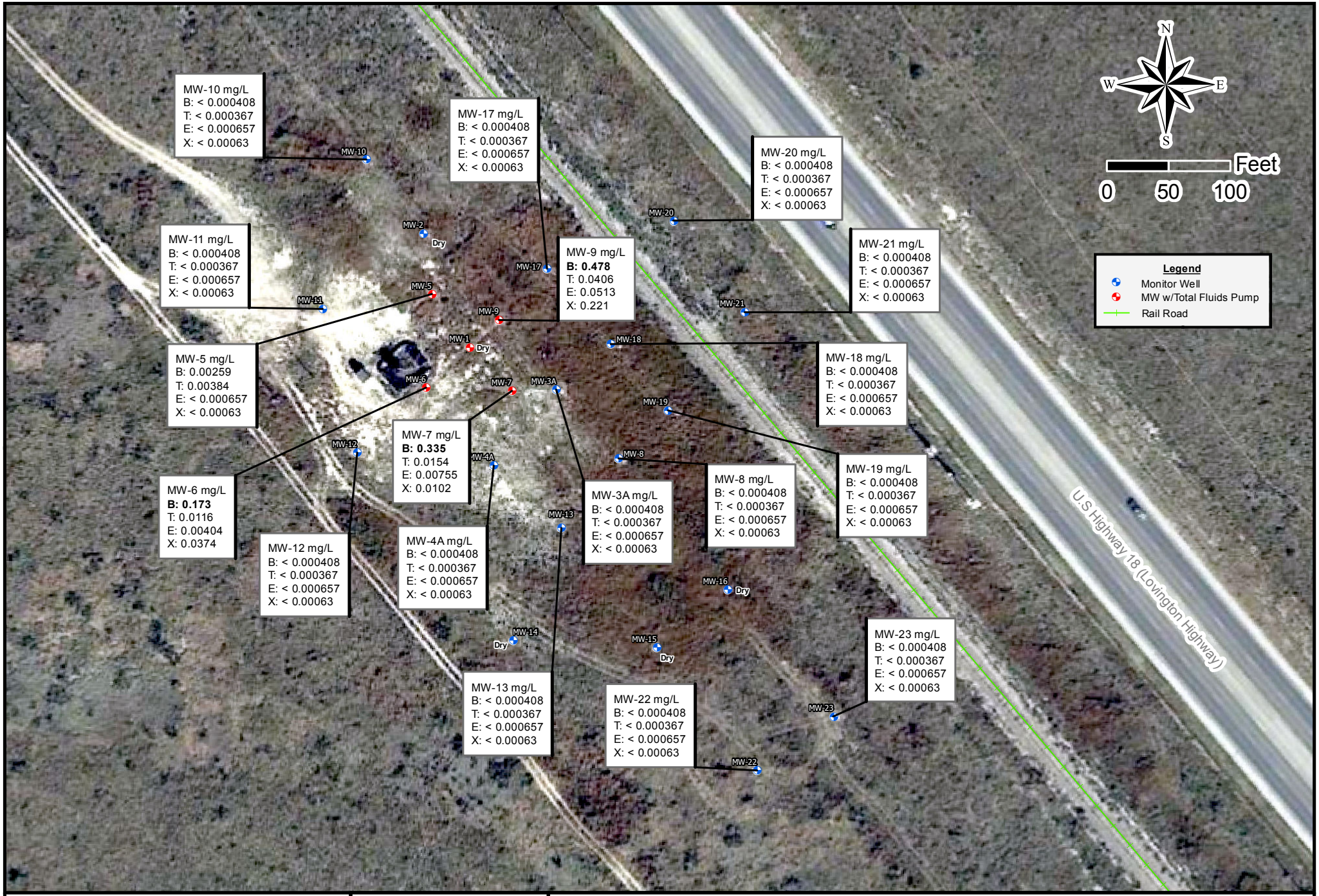
Drafted By: IJM

8" Moore to Jal #2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico

Figure 3b - Groundwater Concentration Map - (06/19-21/2019)



TALON LPE

Date: 10/22/2019
1 in = 100 ft
Drafted By: JAI

8" Moore to Jal #2
SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico
Figure 3c - Groundwater Concentration Map (09/14-15/2019)

TALON LPE

Date: 1/21/2020
1 in = 100 ft
Drafted By: JAI

8" Moore to Jal #2
SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea Couty, New Mexico
Figure 3d - Groundwater Concentration Map (12/17-19/2019)

APPENDIX B

Tables

Table 1 - Summary of Historical Fluid Level Measurements

Table 2 - Summary of Historical Groundwater Analytical Results – BTEX

Table 3 - Summary of Groundwater Analytical Results – PAH Supplement

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-1	3773.35	63	83	03/15/2016	94.40	93.75	0.65	3679.49
4"				06/13/2016	94.15	94.14	0.01	3679.21
				09/22/2016	94.82	94.42	0.4	3678.86
				12/01/2016	94.88	94.72	0.16	3678.60
				03/16/2017	DR	-	-	-
				06/01/2017	94.90	94.79	0.11	3678.54
				09/25/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/20/2018	DR	-	-	-
				06/18/2018	DR	-	-	-
				09/24/2018	DR	-	-	-
				12/18/2018	DR	-	-	-
				03/24/2019	DR	-	-	-
				06/19/2019	94.85			3678.50
				09/09/2019	94.85			3678.50
				12/16/2019	94.90	-	-	3678.45
MW-2	3772.07	62.5	82.5	03/15/2016	DR	-	-	-
4"				06/13/2016	DR	-	-	-
				09/22/2016	DR	-	-	-
				11/30/2016	DR	-	-	-
				03/16/2017	DR	-	-	-
				06/01/2017	DR	-	-	-
				09/25/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/20/2018	DR	-	-	-
				06/18/2018	DR	-	-	-
				09/24/2018	DR	-	-	-
				12/18/2018	DR	-	-	-
				03/24/2019	DR	-	-	-
				06/19/2019	DR	-	-	-
				09/09/2019	DR	-	-	-
				12/16/2019	DR	-	-	-
MW-3A	3773.59	82	112	03/15/2016	94.32	-	-	3679.27
4"				06/13/2016	94.70	-	-	3678.89
				09/23/2016	95.15	-	-	3678.44
				11/30/2016	95.64	-	-	3677.95
				03/16/2017	95.90	-	-	3677.69
				06/01/2017	96.25	-	-	3677.34
				09/25/2017	96.78	-	-	3676.81
				12/13/2017	97.26	-	-	3676.33
				03/20/2018	97.55	-	-	3676.04
				06/18/2018	98.00	-	-	3675.59
				09/24/2018	98.61	-	-	3674.98
				12/18/2018	99.09	-	-	3674.50
				03/24/2019	99.35	-	-	3674.24
				06/19/2019	99.55	-	-	3674.04
				09/09/2019	100.02	-	-	3673.57
				12/16/2019	100.65	-	-	3672.94

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-4A	3774.27	84	114	03/15/2016	95.26	-	-	3679.01
4"				06/13/2016	95.60	-	-	3678.67
				09/23/2016	96.07	-	-	3678.20
				11/30/2016	96.57	-	-	3677.70
				03/16/2017	96.81	-	-	3677.46
				06/01/2017	97.17	-	-	3677.10
				09/25/2017	97.68	-	-	3676.59
				12/13/2017	98.18	-	-	3676.09
				03/20/2018	98.47	-	-	3675.80
				06/18/2018	98.94	-	-	3675.33
				09/24/2018	99.56	-	-	3674.71
				12/18/2018	100.05	-	-	3674.22
				03/24/2019	100.29	-	-	3673.98
				06/19/2019	100.56	-	-	3673.71
				09/09/2019	100.95	-	-	3673.32
				12/16/2019	101.59	-	-	3672.68
MW-5	3772.08	60	100	03/15/2016	92.44	-	-	3679.64
4"				06/13/2016	NL	-	-	-
				09/22/2016	NL	-	-	-
				11/30/2016	NL	-	-	-
				03/16/2017	93.95	-	-	3678.13
				06/01/2017	94.31	-	-	3677.77
				09/25/2017	94.77	-	-	3677.31
				12/13/2017	95.36	-	-	3676.72
				03/20/2018	95.64	-	-	3676.44
				06/18/2018	95.09	-	-	3676.99
				09/24/2018	96.71	-	-	3675.37
				12/18/2018	97.20	-	-	3674.88
				03/24/2019	97.40	-	-	3674.68
				06/19/2019	97.70	-	-	3674.38
				09/09/2019	98.13	-	-	3673.95
				12/16/2019	98.77	-	-	3673.31
MW-6	3772.99	60	100	03/15/2016	93.55	-	-	3679.44
4"				06/13/2016	93.90	-	-	3679.09
				09/23/2016	94.43	-	-	3678.56
				11/30/2016	94.84	-	-	3678.15
				03/16/2017	95.10	-	-	3677.89
				06/01/2017	95.50	-	-	3677.49
				09/25/2017	96.00	-	-	3676.99
				12/13/2017	96.49	-	-	3676.50
				03/20/2018	96.77	-	-	3676.22
				06/18/2018	97.20	-	-	3675.79
				09/24/2018	97.86	-	-	3675.13
				12/18/2018	98.25	-	-	3674.74
				03/24/2019	98.57	-	-	3674.42
				06/19/2019	98.87	-	-	3674.12
				09/09/2019	99.26	-	-	3673.73
				12/16/2019	99.89	-	-	3673.10

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-7	3772.92	60	100	03/15/2016	93.61	93.60	0.01	3679.32
4"				06/13/2016	93.92	-	-	3679.00
				09/23/2016	94.45	-	-	3678.47
				11/30/2016	94.87	-	-	3678.05
				03/16/2017	95.15	-	-	3677.77
				06/01/2017	95.51	-	-	3677.41
				09/25/2017	96.00	-	-	3676.92
				12/13/2017	96.51	-	-	3676.41
				03/20/2018	96.81	-	-	3676.11
				06/18/2018	97.23	-	-	3675.69
				09/24/2018	97.88	-	-	3675.04
				12/18/2018	98.35	-	-	3674.57
				03/24/2019	98.55	-	-	3674.37
				06/19/2019	98.87	-	-	3674.05
				09/09/2019	99.30	-	-	3673.62
				12/16/2019	100.93	-	-	3671.99
MW-8	3773.80	64	104	03/15/2016	94.78	-	-	3679.02
4"				06/13/2016	95.15	-	-	3678.65
				09/22/2016	95.60	-	-	3678.20
				11/30/2016	96.10	-	-	3677.70
				03/16/2017	96.36	-	-	3677.44
				06/01/2017	96.68	-	-	3677.12
				09/25/2017	97.22	-	-	3676.58
				12/13/2017	97.71	-	-	3676.09
				03/20/2018	97.99	-	-	3675.81
				06/18/2018	98.42	-	-	3675.38
				09/24/2018	99.06	-	-	3674.74
				12/18/2018	99.55	-	-	3674.25
				03/24/2019	99.80	-	-	3674.00
				06/19/2019	100.07	-	-	3673.73
				09/09/2019	100.48	-	-	3673.32
				12/16/2019	101.11	-	-	3672.69
MW-9	3771.79	60	100	03/15/2016	92.22	-	-	3679.57
4"				06/13/2016	92.55	-	-	3679.24
				09/22/2016	93.08	-	-	3678.71
				11/30/2016	93.51	-	-	3678.28
				03/16/2017	93.80	-	-	3677.99
				06/01/2017	94.15	-	-	3677.64
				09/25/2017	94.66	-	-	3677.13
				12/13/2017	95.14	-	-	3676.65
				03/20/2018	95.44	-	-	3676.35
				06/18/2018	95.87	-	-	3675.92
				09/24/2018	96.51	-	-	3675.28
				12/18/2018	96.99	-	-	3674.80
				03/24/2019	97.20	-	-	3674.59
				06/19/2019	97.50	-	-	3674.29
				09/09/2019	97.92	-	-	3673.87
				12/16/2019	98.55	-	-	3673.24

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-10 4"	3771.90	61	101	03/15/2016	91.81	-	-	3680.09
				06/13/2016	92.15	-	-	3679.75
				09/22/2016	92.66	-	-	3679.24
				11/30/2016	93.12	-	-	3678.78
				03/16/2017	93.38	-	-	3678.52
				06/01/2017	93.76	-	-	3678.14
				09/25/2017	94.26	-	-	3677.64
				12/13/2017	94.75	-	-	3677.15
				03/20/2018	95.00	-	-	3676.90
				06/18/2018	95.49	-	-	3676.41
				09/24/2018	96.11	-	-	3675.79
				12/18/2018	96.58	-	-	3675.32
				03/24/2019	96.83	-	-	3675.07
				06/19/2019	97.09	-	-	3674.81
				09/09/2019	97.52	-	-	3674.38
				12/16/2019	98.16	-	-	3673.74
MW-11 4"	3772.97	65	105	03/15/2016	93.25	-	-	3679.72
				06/13/2016	93.61	-	-	3679.36
				09/23/2016	94.11	-	-	3678.86
				11/30/2016	94.55	-	-	3678.42
				03/16/2017	94.81	-	-	3678.16
				06/01/2017	95.18	-	-	3677.79
				09/25/2017	95.74	-	-	3677.23
				12/13/2017	96.19	-	-	3676.78
				03/20/2018	96.45	-	-	3676.52
				06/18/2018	96.90	-	-	3676.07
				09/24/2018	97.58	-	-	3675.39
				12/18/2018	98.02	-	-	3674.95
				03/24/2019	98.23	-	-	3674.74
				06/19/2019	98.58	-	-	3674.39
				09/09/2019	98.96	-	-	3674.01
				12/16/2019	99.60	-	-	3673.37
MW-12 4"	3773.80	65	105	03/15/2016	95.50	-	-	3678.30
				06/13/2016	94.83	-	-	3678.97
				09/22/2016	95.34	-	-	3678.46
				11/30/2016	95.79	-	-	3678.01
				03/16/2017	96.05	-	-	3677.75
				06/01/2017	96.40	-	-	3677.40
				09/25/2017	96.96	-	-	3676.84
				12/13/2017	97.44	-	-	3676.36
				03/20/2018	97.67	-	-	3676.13
				06/18/2018	98.14	-	-	3675.66
				09/24/2018	98.80	-	-	3675.00
				12/18/2018	99.31	-	-	3674.49
				03/24/2019	99.50	-	-	3674.30
				06/19/2019	99.77	-	-	3674.03
				09/09/2019	100.20	-	-	3673.60
				12/16/2019	100.85	-	-	3672.95

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-13	3774.36	65	105	03/15/2016	95.48	-	-	3678.88
4"				06/13/2016	95.80	-	-	3678.56
				09/22/2016	96.30	-	-	3678.06
				11/30/2016	96.70	-	-	3677.66
				03/16/2017	97.05	-	-	3677.31
				06/01/2017	97.36	-	-	3677.00
				09/25/2017	97.88	-	-	3676.48
				12/13/2017	98.38	-	-	3675.98
				03/20/2018	98.68	-	-	3675.68
				06/18/2018	99.11	-	-	3675.25
				09/24/2018	99.71	-	-	3674.65
				12/18/2018	100.24	-	-	3674.12
				03/24/2019	100.45	-	-	3673.91
				06/19/2019	100.75	-	-	3673.61
				09/09/2019	101.16	-	-	3673.20
				12/16/2019	101.80	-	-	3672.56
MW-14	3774.40	66	106	03/15/2016	95.85	-	-	3678.55
4"				06/13/2016	96.16	-	-	3678.24
				09/23/2016	96.61	-	-	3677.79
				11/30/2016	97.07	-	-	3677.33
				03/16/2017	93.75	-	-	3680.65
				06/01/2017	97.70	-	-	3676.70
				09/25/2017	NL	-	-	-
				12/13/2017	NL	-	-	-
				03/20/2018	NL	-	-	-
				06/18/2018	NL	-	-	-
				09/24/2018	DR	-	-	-
				12/18/2018	DR	-	-	-
				03/24/2019	DR	-	-	-
				06/19/2019	DR	-	-	-
				09/09/2019	DR	-	-	-
				12/16/2019	DR	-	-	-
MW-15	3774.03	67	107	03/15/2016	95.62	-	-	3678.41
4"				06/13/2016	95.92	-	-	3678.11
				09/23/2016	96.38	-	-	3677.65
				11/30/2016	96.81	-	-	3677.22
				03/16/2017	97.17	-	-	3676.86
				06/01/2017	NL	-	-	-
				09/25/2017	NL	-	-	-
				12/13/2017	NL	-	-	-
				03/20/2018	NL	-	-	-
				06/18/2018	NL	-	-	-
				09/24/2018	DR	-	-	-
				12/18/2018	DR	-	-	-
				03/24/2019	DR	-	-	-
				06/19/2019	DR	-	-	-
				09/09/2019	DR	-	-	-
				12/16/2019	DR	-	-	-

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-16 4"	3773.95	67	107	03/15/2016	95.41	-	-	3678.54
				06/13/2016	95.74	-	-	3678.21
				09/22/2016	96.23	-	-	3677.72
				11/30/2016	96.63	-	-	3677.32
				03/16/2017	97.00	-	-	3676.95
				06/01/2017	NL	-	-	-
				09/25/2017	NL	-	-	-
				12/13/2017	NL	-	-	-
				03/20/2018	NL	-	-	-
				06/18/2018	NL	-	-	-
				09/24/2018	DR	-	-	-
				12/18/2018	DR	-	-	-
				03/24/2019	DR	-	-	-
				06/19/2019	DR	-	-	-
				09/09/2019	DR	-	-	-
				12/16/2019	DR	-	-	-
MW-17 4"	3771.26	64	104	03/15/2016	91.47	-	-	3679.79
				06/13/2016	92.08	-	-	3679.18
				09/22/2016	92.57	-	-	3678.69
				11/30/2016	92.97	-	-	3678.29
				03/16/2017	93.29	-	-	3677.97
				06/01/2017	93.63	-	-	3677.63
				09/25/2017	94.15	-	-	3677.11
				12/13/2017	94.64	-	-	3676.62
				03/20/2018	94.64	-	-	3676.62
				06/18/2018	95.39	-	-	3675.87
				09/24/2018	96.00	-	-	3675.26
				12/18/2018	96.50	-	-	3674.76
				03/24/2019	96.71	-	-	3674.55
				06/19/2019	97.00	-	-	3674.26
				09/09/2019	97.40	-	-	3673.86
				12/16/2019	98.04	-	-	3673.22
MW-18 4"	3772.41	64	104	03/15/2016	93.11	-	-	3679.30
				06/13/2016	93.45	-	-	3678.96
				09/22/2016	93.96	-	-	3678.45
				11/30/2016	94.35	-	-	3678.06
				03/16/2017	94.68	-	-	3677.73
				06/01/2017	95.01	-	-	3677.40
				09/25/2017	95.53	-	-	3676.88
				12/13/2017	96.02	-	-	3676.39
				03/20/2018	96.31	-	-	3676.10
				06/18/2018	96.74	-	-	3675.67
				09/24/2018	97.36	-	-	3675.05
				12/18/2018	97.78	-	-	3674.63
				03/24/2019	98.12	-	-	3674.29
				06/19/2019	98.39	-	-	3674.02
				09/09/2019	98.81	-	-	3673.60
				12/16/2019	99.43	-	-	3672.98

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-19	3773.63	65	105	03/15/2016	94.57	-	-	3679.06
4"				06/13/2016	94.91	-	-	3678.72
				09/22/2016	95.42	-	-	3678.21
				11/30/2016	95.79	-	-	3677.84
				03/16/2017	96.14	-	-	3677.49
				06/01/2017	96.47	-	-	3677.16
				09/25/2017	96.98	-	-	3676.65
				12/13/2017	97.50	-	-	3676.13
				03/20/2018	97.77	-	-	3675.86
				06/18/2018	98.20	-	-	3675.43
				09/24/2018	98.82	-	-	3674.81
				12/18/2018	99.34	-	-	3674.29
				03/24/2019	99.61	-	-	3674.02
				06/19/2019	99.86	-	-	3673.77
				09/09/2019	100.27	-	-	3673.36
				12/16/2019	100.89	-	-	3672.74
MW-20	3770.92	63	103	03/15/2016	91.42	-	-	3679.50
4"				06/13/2016	91.73	-	-	3679.19
				09/22/2016	92.25	-	-	3678.67
				11/30/2016	92.66	-	-	3678.26
				03/16/2017	93.00	-	-	3677.92
				06/01/2017	93.29	-	-	3677.63
				09/25/2017	93.82	-	-	3677.10
				12/13/2017	94.29	-	-	3676.63
				03/20/2018	94.60	-	-	3676.32
				06/18/2018	95.02	-	-	3675.90
				09/24/2018	95.63	-	-	3675.29
				12/18/2018	96.15	-	-	3674.77
				03/24/2019	96.41	-	-	3674.51
				06/19/2019	96.67	-	-	3674.25
				09/09/2019	97.09	-	-	3673.83
				12/16/2019	97.68	-	-	3673.24
MW-21	3773.30	64	104	03/15/2016	91.06	-	-	3682.24
4"				06/13/2016	94.38	-	-	3678.92
				09/22/2016	94.90	-	-	3678.40
				11/30/2016	95.30	-	-	3678.00
				03/16/2017	95.60	-	-	3677.70
				06/01/2017	95.95	-	-	3677.35
				09/25/2017	96.45	-	-	3676.85
				12/13/2017	96.94	-	-	3676.36
				03/20/2018	97.25	-	-	3676.05
				06/18/2018	97.70	-	-	3675.60
				09/24/2018	98.30	-	-	3675.00
				12/18/2018	98.80	-	-	3674.50
				03/24/2019	99.07	-	-	3674.23
				06/19/2019	99.33	-	-	3673.97
				09/09/2019	99.73	-	-	3673.57
				12/16/2019	100.34	-	-	3672.96

Table 1 - Groundwater and NAPL Thickness - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Sample Date (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-22	3772.92	80	110	03/15/2016	94.90	-	-	3678.02
2"				06/13/2016	95.19	-	-	3677.73
				09/22/2016	95.67	-	-	3677.25
				11/30/2016	96.06	-	-	3676.86
				03/16/2017	96.41	-	-	3676.51
				06/01/2017	96.73	-	-	3676.19
				09/25/2017	97.26	-	-	3675.66
				12/13/2017	97.46	-	-	3675.46
				03/20/2018	98.02	-	-	3674.90
				06/18/2018	98.51	-	-	3674.41
				09/24/2018	98.91	-	-	3674.01
				12/18/2018	99.66	-	-	3673.26
				03/24/2019	99.91	-	-	3673.01
				06/19/2019	102.10	-	-	3670.82
				09/09/2019	100.57	-	-	3672.35
				12/16/2019	101.18	-	-	3671.74
MW-23	3773.87	84	114	03/15/2016	95.75	-	-	3678.12
2"				06/13/2016	96.03	-	-	3677.84
				09/22/2016	96.50	-	-	3677.37
				11/30/2016	96.94	-	-	3676.93
				03/16/2017	97.29	-	-	3676.58
				06/01/2017	97.60	-	-	3676.27
				09/25/2017	98.11	-	-	3675.76
				12/13/2017	98.61	-	-	3675.26
				03/20/2018	98.93	-	-	3674.94
				06/18/2018	99.35	-	-	3674.52
				09/24/2018	99.95	-	-	3673.92
				12/18/2018	100.51	-	-	3673.36
				03/24/2019	109.77	-	-	3664.10
				06/19/2019	101.05	-	-	3672.82
				09/09/2019	101.46	-	-	3672.41
				12/16/2019	102.01	-	-	3671.86

Specific Gravity: 0.75
Notes:
DR = Well dry
DS = Well destroyed
NG = Well not gauged
NL = Well not located
NSA = No access
OB = Obstruction in well
PA = Well plugged and abandoned

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
NMOCD - Groundwater		0.01	0.75	0.75	0.62	-	-	-
MW-1	09/24/2018	-	-	-	-	-	-	DR
	12/20/2018	-	-	-	-	-	-	DR
	06/19/2019	-	-	-	-	-	-	DR
	09/09/2019	-	-	-	-	-	-	DR
MW-2	09/24/2018	-	-	-	-	-	-	DR
	12/20/2018	-	-	-	-	-	-	DR
MW-3A	03/15/2016	<0.00022	0.00110	<0.00024	<0.00024	-	-	-
	06/15/2016	0.00100	0.00130	<0.000763	0.00110	-	-	-
	09/23/2016	0.00510	0.00810	<0.000238	0.00380	-	-	-
	12/02/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	**0.0145**	0.0218	<0.000657	0.0124	-	-	-
	06/01/2017	<0.000408	0.00297	0.00134 J	0.00293	0.00724	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	0.00924	0.00973	<0.000657	0.00838	0.0274	-	-
	03/21/2018	<0.000408	0.000670 J	<0.000657	<0.000630	0.000670 J	-	-
	06/18/2018	0.000900 J	<0.000512	<0.000616	<0.000270	0.000900 J	-	-
	09/26/2018	<0.000408	0.0210	<0.000657	<0.000630	0.0210	-	-
	12/20/2018	0.000900 J	<0.000512	<0.000616	<0.000270	0.000900 J	-	-
	03/25/2019	0.000790	<0.0005	<0.0005	<0.000500	0.000790	-	-
	06/19/2019	**0.0224**	0.0428	0.0235	0.0208	0.110	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-4A	03/15/2016	**0.206**	0.00150	0.0124	0.00120	-	-	-
	06/15/2016	**0.0740**	0.0265	0.00280	0.00680	-	-	-
	09/23/2016	**0.0302**	0.0118	0.00250	0.00430	-	-	-
	12/02/2016	0.00255	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	0.00273	0.00201	<0.000657	0.000970 J	0.00571	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/27/2018	<0.000408	0.00715	<0.000657	<0.000630	0.00715	-	-
	12/20/2018	0.00100 J	<0.000512	<0.000616	<0.000270	0.00100 J	-	-
	03/25/2019	0.00704	<0.0005	0.00123	<0.000500	0.00827	-	-
	06/19/2019	0.00600	0.00400	<0.00308	<0.00135	0.0100	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-5	03/17/2016	**0.0362**	0.0315	0.00430	0.0222	-	-	-
	03/23/2017	**0.0525**	0.0315	0.0217	0.0510	-	-	-
	06/02/2017	**0.282**	0.123	0.0567	0.210	0.672	-	-
	09/26/2017	**0.284**	0.0656	0.0195	0.0676	0.437	-	-
	12/21/2017	**0.0396**	0.0154	0.00589	0.0114	0.0723	-	-
	03/21/2018	0.00312	0.00214	<0.000657	0.00308	0.00834	-	-
	06/18/2018	0.00880	0.00830	0.000700 J	0.00470	0.0225	-	-
	09/27/2018	**0.0334**	0.0200	0.00141 J	0.00914	0.0640	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	0.000900 J	0.000900 J	-	-
	03/26/2019	**0.0183**	0.00408	0.00182	0.00681	0.0310	-	-
	06/20/2019	**0.0440**	0.0414	0.00270	0.0168	0.105	-	-
	09/14/2019	0.00259	0.00384	<0.000657	<0.00063	0.00643	-	-
	12/19/2019	0.00391	0.00110	<0.000657	0.000690	0.00570	-	-

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-6	03/17/2016	**0.453**	0.118	0.0703	0.182	-	-	-
	06/15/2016	**0.574**	0.418	0.0912	0.358	-	-	-
	09/23/2016	**0.424**	0.240	0.200	0.384	-	-	-
	12/02/2016	**1.66**	0.141	0.0412	0.139	-	-	-
	03/23/2017	**1.50**	0.228	0.0532	0.235	-	-	-
	06/02/2017	**0.0507**	0.00523	0.00116 J	0.00699	0.0641	-	-
	09/26/2017	**0.0531**	0.0189	0.0235	0.0563	0.152	-	-
	12/21/2017	**1.02**	0.467	0.179	0.494	2.16	-	-
	03/21/2018	**0.836**	0.0318	0.0141 J	0.0967	0.979	-	-
	06/18/2018	**1.82**	0.322	0.0570	0.158	2.36	-	-
	09/27/2018	**0.619 D**	0.0592	0.0104	0.0415	0.730	-	-
	12/27/2018	**0.185**	0.00598	0.00131 J	0.0257	0.218	-	-
	03/24/2019	**0.645**	0.106	0.0194	0.0926	0.863	-	-
	06/20/2019	**0.170**	0.00290	0.00330	0.0115	0.188	-	-
	09/15/2019	**0.173**	0.0116	0.00404	0.0374	0.226	-	-
	12/19/2019	**0.119**	0.000670	0.00226	0.00546	0.127	-	-
MW-7	06/15/2016	**0.278**	0.203	0.0100	0.0598	-	-	-
	09/23/2016	**0.0760**	0.0652	0.00610	0.0227	-	-	-
	12/02/2016	**1.86**	0.0540	0.390	0.588	-	-	-
	03/23/2017	**2.27**	0.391	0.223	0.402	-	-	-
	06/02/2017	**0.115**	0.00556	0.0110	0.0132	0.145	-	-
	09/26/2017	**3.59 D**	0.141	0.200	0.224	4.15	-	-
	12/21/2017	**0.169**	0.0167	0.00907	0.0120	0.207	-	-
	03/21/2018	**0.354**	0.00755	0.0177	0.0137	0.393	-	-
	06/18/2018	**0.254**	0.00740	0.00940	0.00630	0.277	-	-
	09/27/2018	**0.315**	0.0161	0.00551	0.00827	0.345	-	-
	12/20/2018	**0.108**	0.00380	0.00100 J	0.00290	0.116	-	-
	03/25/2019	**0.0513**	0.00539	0.00148	0.00450	0.0627	-	-
	06/21/2019	**0.323**	<0.00256	<0.00308	0.0150	0.338	-	-
	09/14/2019	**0.335**	0.0154	0.00755	0.0102	0.368	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-8	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	0.000700 J	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/01/2017	0.00159 J	<0.00100	<0.000657	<0.000642	0.00159 J	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	0.00110	<0.000512	<0.000616	<0.000270	0.00110	-	-
	09/26/2018	<0.000408	0.339	<0.000657	<0.000630	0.339	-	-
	12/20/2018	0.000900 J	<0.000512	<0.000616	<0.000270	0.000900 J	-	-
	03/25/2019	0.00342	<0.0005	0.000890	<0.000500	0.00431	-	-
	06/19/2019	0.00600	<0.000512	<0.000616	<0.000270	0.00600	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-9	03/17/2016	**0.259**	0.269	0.0770	0.139	-	-	-
	06/15/2016	**0.220**	0.247	0.0176	0.0882	-	-	-
	09/22/2016	**0.253**	0.283	0.0830	0.186	-	-	-
	12/02/2016	**0.171**	0.116	0.0476	0.124	-	-	-
	03/23/2017	**0.370**	0.111	0.0819	0.201	-	-	-
	06/02/2017	**0.0359**	0.0214	0.00718	0.0192	0.0836	-	-
	09/26/2017	**4.95**	**2.31**	**0.902**	**2.32**	10.5	-	-
	12/21/2017	**1.29**	0.0543	0.0157	0.0958	1.46	-	-
	03/21/2018	**0.386**	0.0102	0.219	0.359	0.974	-	-
	06/18/2018	**0.136**	0.0100	0.0290	0.0700	0.245	-	-
	09/27/2018	**0.110**	0.0163	0.0204	0.0345	0.181	-	-
	12/20/2018	0.00610	<0.000512	0.000700 J	0.00310	0.00990	-	-
	03/25/2019	**0.0788**	0.00283	0.0378	0.0103	0.130	-	-
	06/20/2019	**0.384**	0.0153	0.0654	0.109	0.573	-	-
	09/15/2019	**0.478**	0.0406	0.0513	0.221	0.791	-	-
	12/19/2019	**0.224**	0.00580	0.0616	0.138	0.430	-	-
MW-10	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	0.000400 J	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/01/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	<0.000408	0.00204	<0.000657	<0.000630	0.00204	-	-
	12/20/2018	0.00130	<0.000512	<0.000616	<0.000270	0.00130	-	-
	03/26/2019	0.00203	<0.0005	<0.0005	<0.000500	0.00203	-	-
	06/20/2019	<0.000480	0.00130	<0.000616	<0.000270	0.00130	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/18/2019	0.000780	<0.000367	<0.000657	<0.000630	0.000780	-	-
MW-11	03/15/2016	**0.722**	<0.0119	<0.0119	<0.0122	-	-	-
	06/15/2016	**0.371**	<0.0310	<0.0382	<0.0128	-	-	-
	09/23/2016	**0.0200**	0.00160	<0.000238	0.000900 J	-	-	-
	12/02/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/01/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	0.00123 J	0.00808	<0.000657	<0.000630	0.00931	-	-
	12/20/2018	0.000700 J	<0.000512	<0.000616	<0.000270	0.000700 J	-	-
	03/26/2019	0.000560	<0.0005	<0.0005	<0.000500	0.000560	-	-
	06/21/2019	0.00300	<0.000512	<0.000616	<0.000270	0.00300	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/18/2019	0.00105	<0.000367	<0.000657	<0.000630	0.00105	-	-

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-12	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/01/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/27/2018	<0.000408	0.0365	<0.000657	<0.000630	0.0365	-	-
	12/20/2018	0.00110	<0.000512	<0.000616	<0.000270	0.00110	-	-
	03/24/2019	0.00602	<0.0005	0.000990	<0.000500	0.00701	-	-
	06/20/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-13	03/15/2016	0.00120	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	<0.000504	<0.000621	0.00580	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	0.000900 J	<0.000243	-	-	-
	11/30/2016	0.00230	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	<0.000408	0.00530	<0.000657	<0.000630	0.00530	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	03/25/2019	0.00583	<0.0005	0.00136	<0.000500	0.00719	-	-
	06/19/2019	0.00380	<0.000512	<0.000616	<0.000270	0.00380	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/17/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-14	03/15/2016	**0.0410**	<0.00024	<0.00024	0.00280	-	-	-
	06/15/2016	**0.253**	<0.000621	<0.000763	0.00540	-	-	-
	09/23/2016	**0.462**	<0.00119	<0.00119	0.00580	-	-	-
	12/02/2016	**0.195**	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	**0.0238**	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	0.00247	<0.00100	<0.000657	<0.000642	0.00247	-	-
	09/24/2018	-	-	-	-	-	-	DR
	12/20/2018	-	-	-	-	-	-	DR
MW-15	03/15/2016	**0.983**	<0.0024	<0.0024	<0.0024	-	-	-
	06/15/2016	**1.64**	<0.0310	<0.0382	<0.0128	-	-	-
	09/23/2016	**3.47**	<0.0119	<0.0119	<0.0122	-	-	-
	12/02/2016	0.00464	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	**1.11**	<0.00918	<0.0164	<0.0157	-	-	-
	09/24/2018	-	-	-	-	-	-	DR
	12/20/2018	-	-	-	-	-	-	DR
MW-16	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/13/2016	0.000700 J	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	09/24/2018	-	-	-	-	-	-	DR
	12/20/2018	-	-	-	-	-	-	DR

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-17	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	0.000620 J	<0.000657	<0.000630	0.000620 J	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	<0.000408	0.00234	<0.000657	<0.000630	0.00234	-	-
	12/20/2018	0.00240	<0.000512	<0.000616	<0.000270	0.00240	-	-
	03/26/2019	0.000740	<0.0005	<0.0005	<0.000500	0.000740	-	-
	06/20/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/19/2019	0.000740	<0.000367	<0.000657	<0.000630	0.000740	-	-
MW-18	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	0.000640 J	<0.000657	<0.000630	0.000640 J	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	0.000660 J	0.00564	<0.000657	<0.000630	0.00630	-	-
	12/20/2018	0.00100 J	<0.000512	<0.000616	<0.000270	0.00100 J	-	-
	03/26/2019	0.000800	<0.0005	<0.0005	<0.000500	0.000800	-	-
	06/20/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/19/2019	0.000880	<0.000367	<0.000657	<0.000630	0.000880	-	-
MW-19	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	0.000600 J	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	0.000730 J	<0.000657	<0.000630	0.000730 J	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/26/2018	<0.000408	0.00208	<0.000657	<0.000630	0.00208	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	03/26/2019	0.00466	0.000730	0.00122	<0.000500	0.00661	-	-
	06/20/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/19/2019	0.000990	<0.000367	<0.000657	<0.000630	0.000990	-	-

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-20	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	0.00268	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/27/2018	<0.000408	0.0197	<0.000657	<0.000630	0.0197	-	-
	12/20/2018	0.00100 J	<0.000512	<0.000616	<0.000270	0.00100 J	-	-
	03/26/2019	<0.0005	<0.0005	<0.0005	<0.000500	<0.000500	-	-
	06/21/2019	0.00680	<0.000512	<0.000616	<0.000270	0.00680	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/18/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-21	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/23/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/02/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/27/2018	<0.000408	0.0260	<0.000657	<0.000630	0.0260	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	03/26/2019	0.00360	<0.0005	0.00115	<0.000500	0.00475	-	-
	06/21/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/18/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
MW-22	03/15/2016	0.00340	<0.00024	<0.00024	<0.00024	-	-	-
	06/15/2016	0.000600 J	<0.000621	<0.000763	<0.000256	-	-	-
	09/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	<0.000408	<0.00100	<0.000657	<0.000642	-	-	-
	03/24/2017	<0.000408	<0.000367	<0.000657	<0.000630	-	-	-
	06/01/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408	-	-
	09/26/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	0.00281	0.00281	-	-
	06/18/2018	0.00370	<0.000512	<0.000616	<0.000270	0.00370	-	-
	09/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	03/24/2019	<0.0005	<0.0005	<0.0005	<0.000500	<0.000500	-	-
	06/21/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	-	-
	12/18/2019	0.00155	<0.000367	<0.000657	<0.000630	0.00155	-	-

Table 2 - Groundwater Analytical Data - Historical
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	MTBE (mg/L)	Notes
MW-23	03/15/2016	<0.00022	<0.00024	<0.00024	<0.00024	-	-	-
	06/13/2016	0.00400	<0.000621	<0.000763	0.00070 J	-	-	-
	09/22/2016	**0.0134**	<0.000238	<0.000238	<0.000243	-	-	-
	11/30/2016	**0.0694**	<0.0200	<0.0131	<0.0128	-	-	-
	03/23/2017	**0.209**	0.00223	<0.000657	0.0124	-	-	-
	06/02/2017	**0.0538**	<0.00100	<0.000657	0.0109	0.0647	-	-
	09/26/2017	0.00199 J	0.00127 J	0.00255	0.0238	0.0296	-	-
	12/21/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-
	03/21/2018	<0.000408	<0.000367	<0.000657	0.00628	0.00628	-	-
	06/18/2018	<0.000480	<0.000512	<0.000616	0.00420	0.00420	-	-
	09/26/2018	0.00279	<0.000367	<0.000657	0.00652	0.00931	-	-
	12/20/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	03/24/2019	<0.0005	<0.0005	<0.0005	<0.000500	<0.000500	-	-
	06/21/2019	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270	-	-
	09/10/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367	<0.00258	-
	12/18/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367	-	-

Notes:
Lab Flags noted next to vales. See lab report for description.

Analyte concentration exceeds the standard for:
NMOCD - Groundwater

Table 3 - Groundwater Analytical Data - Historical - PAH Supplement
Moore to Jal #2
Lovington/Hobbs, NM
SRS#: 2002-10273

Sample ID	Date Sampled	Acenaphthene (mg/l)	Acenaphthylene (mg/l)	Anthracene (mg/l)	Benzo(a)anthracene (mg/l)	Benzo(a)pyrene (mg/l)	Benzo(b)fluoranthene (mg/l)	Benzo(g,h,i)perylene (mg/l)	Benzo(k)fluoranthene (mg/l)	Chrysene (mg/l)	Dibenz(a,h)anthracene (mg/l)	Dibenzofuran (mg/l)	Fluoranthene (mg/l)	Fluorene (mg/l)	Indeno (1,2,3-c,d) pyrene (mg/l)	Naphthalene (mg/l)	Phenanthrene (mg/l)	Pyrene (mg/l)
NMOCD - Groundwater		-	-	-	-	0.007	-	-	-	-	-	-	-	-	-	0.03	-	-
MW-3A	3/15/2016	<0.000033	<0.000058	<0.000032	<0.000072	<0.000042	<0.000071	<0.000052	<0.000056	<0.000081	<0.000056	<0.000061	<0.000064	<0.000079	<0.000054	<0.000066	<0.000052	<0.000041
	3/21/2018	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109
	3/25/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	<0.0000045	<0.0000055	<0.0000092
MW-4A	3/15/2016	<0.000033	<0.000058	<0.000032	<0.000072	<0.000042	<0.000071	<0.000052	<0.000056	<0.000081	<0.000056	<0.000061	<0.000064	<0.000079	<0.000054	<0.000066	<0.000052	<0.000041
	3/21/2018	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108
	3/25/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	<0.0000045	<0.0000055	<0.0000092
MW-6	12/2/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000150	<0.0000250	0.000833	<0.0000250	0.000996	<0.0000250	0.00458	0.000795	<0.0000250
	3/21/2018	<0.000107	0.000172 J	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	0.000466	<0.000107	0.000461	<0.000107	0.00517	0.000523	<0.000107
	3/24/2019	<0.0000042	<0.0000075	<0.0000078	<0.0000065	0.000786	<0.0000094	<0.0000082	<0.0000080	0.000270	<0.0000051	<0.0000055	0.0000623	<0.0000056	<0.0000051	0.0000675	<0.0000057	0.0000828
MW-7	12/2/2016	0.000172	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000189	<0.0000250	0.000634	<0.0000250	0.000714	<0.0000250	0.0201 D	0.000269	0.0000505
	3/21/2018	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	0.000209	<0.000109	0.000140 J	<0.000109	0.00107	<0.000109	<0.000109
	3/25/2019	<0.0000041	<0.0000074	<0.0000077	<0.0000064	<0.0000096	<0.0000092	<0.0000080	<0.0000079	0.000149	<0.000005	0.0000429	0.0000399	0.0000561	<0.000005	0.000125	<0.0000056	0.0000465
MW-8	11/30/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250
	3/21/2018	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108
	3/25/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	<0.0000053	<0.0000090	<0.0000055	<0.0000049	0.0000422	<0.0000055	<0.0000092
MW-9	12/2/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.0000694	0.0000535	<0.0000250	0.000491	<0.0000250	<0.0000250	0.000160	<0.0000250	<0.0000250	0.00207	<0.0000250	0.000159
	3/21/2018	0.000210	0.000308	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	0.000823	<0.000109	0.000612	<0.000109	0.0289	-	<0.000109
	3/25/2019	<0.0000041	<0.0000074	<0.0000077	<0.0000064	<0.0000096	<0.0000092	0.0000719	<0.0000079	0.000198	<0.000005	<0.0000054	0.0000735	<0.0000055	<0.000005	0.000126	<0.0000056	0.000105
MW-18	12/5/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250
	3/21/2018	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109	<0.000109
	3/26/2019	<0.0000041	<0.0000074	<0.0000077	<0.0000064	<0.0000096	<0.0000092	<0.0000080	<0.0000079	<0.0000089	<0.000005	<0.0000054	<0.0000090	<0.0000055	<0.000005	0.0000621	<0.0000056	<0.0000093
MW-22	3/15/2016	<0.000033	<0.000058	<0.000032	<0.000072	<0.000042	<0.000071	<0.000052	<0.000056	<0.000081	<0.000056	<0.000061	<0.000064	<0.000079	<0.000054	<0.000066	<0.000052	<0.000041
	3/21/2018	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	0.000948	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111
	3/24/2019	<0.0000042	<0.0000075	<0.0000077	<0.0000065	<0.0000097	<0.0000093	<0.0000081	<0.0000079	<0.0000090	<0.0000050	0.000270	<0.0000091	0.0000366	<0.0000050	<0.0000046	<0.0000056	<0.0000094
MW-23	3/15/2016	<0.000033	<0.000058	<0.000032	<0.000072	**0.00983**	<0.000071	0.0333	<0.000056	<0.000081	0.107	<0.000061	<0.000064	<0.000079	0.168	<0.000066	<0.000052	<0.000041
	3/21/2018	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	0.000889	<0.000110	<0.000110
	3/24/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	0.000209	<0.0000090	0.0000325	<0.0000049	0.000416	0.000184	<0.0000092

Notes:
Lab Flags noted next to values. See lab report for description.

Analyte concentration exceeds the standard for:
NMOCD - Groundwater

APPENDIX C

Laboratory Analytical Data Reports and Chain of Custody Documentation

Analytical Report 619091

for

Talon/LPE Co.

Project Manager: David Adkins

Moore to Jal #2

700376 045 04

04.05.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

04.05.2019

Project Manager: **David Adkins**
Talon/LPE Co.
921 N Bivins St
Amarillo, TX 79107

Reference: XENCO Report No(s): **619091**
Moore to Jal #2
Project Address:

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 619091. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 619091 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Wendy Walfoort

Wendy Walfoort
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW21	W	03.26.2019 12:25		619091-001
MW20	W	03.26.2019 12:00		619091-002
MW19	W	03.26.2019 10:05		619091-003
MW18	W	03.26.2019 10:30		619091-004
MW17	W	03.26.2019 11:00		619091-005
MW22	W	03.24.2019 10:50		619091-006
MW23	W	03.24.2019 11:15		619091-007
MW11	W	03.26.2019 11:25		619091-008
MW12	W	03.24.2019 11:45		619091-009
MW6	W	03.24.2019 13:45		619091-010
MW4A	W	03.25.2019 11:30		619091-011
MW13	W	03.25.2019 12:10		619091-012
MW8	W	03.25.2019 12:30		619091-013
MW3A	W	03.25.2019 13:15		619091-014
MW7A	W	03.25.2019 14:40		619091-015
MW9	W	03.25.2019 14:00		619091-016
MW5	W	03.26.2019 09:15		619091-017
MW10	W	03.26.2019 09:40		619091-018

CASE NARRATIVE

Client Name: Talon/LPE Co.

Project Name: Moore to Jal #2

Project ID:	*700376 045 04*	Report Date:	*04.05.2019*
Work Order Number(s):	*619091*	Date Received:	*03.27.2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id: **MW21** Matrix: Water Sample Depth:

Lab Sample Id: 619091-001 Date Collected: 03.26.2019 12:25 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084281 Date Prep: 04.02.2019 10:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674871

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00360**	0.00100	0.000500	mg/L	04.02.2019 21:28		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:28	U	1
Ethylbenzene	100-41-4	**0.00115**	0.00100	0.000500	mg/L	04.02.2019 21:28		1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 21:28	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:28	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 21:28	U	
Total BTEX		**0.00475**		0.000500	mg/L	04.02.2019 21:28		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	105	75 - 131	%		
1,2-Dichloroethane-D4	108	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Sample Id: **MW20** Matrix: Water Sample Depth:

Lab Sample Id: 619091-002 Date Collected: 03.26.2019 12:00 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084281 Date Prep: 04.02.2019 10:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674871

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:46	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:46	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:46	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 21:46	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:46	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 21:46	U	
Total BTEX		<0.000500		0.000500	mg/L	04.02.2019 21:46	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	105	75 - 131	%		
1,2-Dichloroethane-D4	101	63 - 144	%		
Toluene-D8	103	80 - 117	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW19**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-003	Date Collected:	03.26.2019 10:05	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084281	Date Prep:	04.02.2019 10:50		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674871		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00466**	0.00100	0.000500	mg/L	04.02.2019 22:04		1
Toluene	108-88-3	**0.000730**	0.00100	0.000500	mg/L	04.02.2019 22:04	J	1
Ethylbenzene	100-41-4	**0.00122**	0.00100	0.000500	mg/L	04.02.2019 22:04		1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 22:04	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:04	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 22:04	U	
Total BTEX		**0.00661**		0.000500	mg/L	04.02.2019 22:04		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	101	63 - 144	%		
Toluene-D8	98	80 - 117	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id: **MW18** Matrix: Water Sample Depth:

Lab Sample Id: 619091-004 Date Collected: 03.26.2019 10:30 Date Received: 03.27.2019 11:50

Analytical Method: PAHs by 8270D SIM Prep Method: 3510C

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.29.2019 08:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674529

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000505	0.00000412	mg/L	03.29.2019 15:13	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.29.2019 15:13	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.29.2019 15:13	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.29.2019 15:13	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.29.2019 15:13	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.29.2019 15:13	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000505	0.00000804	mg/L	03.29.2019 15:13	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.29.2019 15:13	U	1
Chrysene	218-01-9	<0.00000890	0.0000505	0.00000889	mg/L	03.29.2019 15:13	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 15:13	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000505	0.00000536	mg/L	03.29.2019 15:13	U	1
Fluoranthene	206-44-0	<0.00000910	0.0000505	0.00000905	mg/L	03.29.2019 15:13	U	1
Fluorene	86-73-7	<0.00000550	0.0000505	0.00000551	mg/L	03.29.2019 15:13	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 15:13	U	1
Naphthalene	91-20-3	**0.0000621**	0.000505	0.00000455	mg/L	03.29.2019 15:13	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000505	0.00000556	mg/L	03.29.2019 15:13	U	1
Pyrene	129-00-0	<0.00000930	0.0000505	0.00000929	mg/L	03.29.2019 15:13	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	93	41 - 128	%		
2-Fluorobiphenyl	93	55 - 135	%		
Terphenyl-D14	106	54 - 131	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id: **MW18** Matrix: Water Sample Depth:

Lab Sample Id: 619091-004 Date Collected: 03.26.2019 10:30 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084281 Date Prep: 04.02.2019 10:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674871

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000800**	0.00100	0.000500	mg/L	04.02.2019 22:21	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:21	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:21	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 22:21	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:21	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 22:21	U	
Total BTEX		**0.000800**		0.000500	mg/L	04.02.2019 22:21	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	98	63 - 144	%		
Toluene-D8	95	80 - 117	%		

Sample Id: **MW17** Matrix: Water Sample Depth:

Lab Sample Id: 619091-005 Date Collected: 03.26.2019 11:00 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084281 Date Prep: 04.02.2019 10:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674871

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000740**	0.00100	0.000500	mg/L	04.02.2019 22:39	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:39	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:39	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 22:39	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 22:39	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 22:39	U	
Total BTEX		**0.000740**		0.000500	mg/L	04.02.2019 22:39	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	102	75 - 131	%		
1,2-Dichloroethane-D4	111	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id: **MW22** Matrix: Water Sample Depth:

Lab Sample Id: 619091-006 Date Collected: 03.24.2019 10:50 Date Received: 03.27.2019 11:50

Analytical Method: PAHs by 8270D SIM Prep Method: 3510C

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.29.2019 08:03

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674529

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000420	0.0000510	0.00000417	mg/L	03.29.2019 15:31	U	1
Acenaphthylene	208-96-8	<0.00000750	0.0000510	0.00000746	mg/L	03.29.2019 15:31	U	1
Anthracene	120-12-7	<0.00000770	0.0000510	0.00000773	mg/L	03.29.2019 15:31	U	1
Benzo(a)anthracene	56-55-3	<0.00000650	0.0000510	0.00000645	mg/L	03.29.2019 15:31	U	1
Benzo(a)pyrene	50-32-8	<0.00000980	0.0000510	0.00000975	mg/L	03.29.2019 15:31	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000930	0.0000510	0.00000926	mg/L	03.29.2019 15:31	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000810	0.0000510	0.00000813	mg/L	03.29.2019 15:31	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000800	0.0000510	0.00000795	mg/L	03.29.2019 15:31	U	1
Chrysene	218-01-9	<0.00000900	0.0000510	0.00000898	mg/L	03.29.2019 15:31	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000510	0.0000510	0.00000505	mg/L	03.29.2019 15:31	U	1
Dibenzofuran	132-64-9	**0.000270**	0.0000510	0.00000541	mg/L	03.29.2019 15:31		1
Fluoranthene	206-44-0	<0.00000920	0.0000510	0.00000915	mg/L	03.29.2019 15:31	U	1
Fluorene	86-73-7	**0.0000366**	0.0000510	0.00000557	mg/L	03.29.2019 15:31	J	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000510	0.0000510	0.00000505	mg/L	03.29.2019 15:31	U	1
Naphthalene	91-20-3	<0.00000460	0.000510	0.00000460	mg/L	03.29.2019 15:31	U	1
Phenanthrene	85-01-8	<0.00000560	0.0000510	0.00000562	mg/L	03.29.2019 15:31	U	1
Pyrene	129-00-0	<0.00000940	0.0000510	0.00000939	mg/L	03.29.2019 15:31	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	104	41 - 128	%		
2-Fluorobiphenyl	96	55 - 135	%		
Terphenyl-D14	99	54 - 131	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW22**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-006	Date Collected:	03.24.2019 10:50	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084372	Date Prep:	04.02.2019 17:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674929		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:33	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:33	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:33	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 04:33	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:33	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 04:33	U	
Total BTEX		<0.000500		0.000500	mg/L	04.03.2019 04:33	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	98	75 - 131	%		
1,2-Dichloroethane-D4	100	63 - 144	%		
Toluene-D8	101	80 - 117	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW23**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-007	Date Collected:	03.24.2019 11:15	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:06		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.29.2019 17:01	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 17:01	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 17:01	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 17:01	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 17:01	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 17:01	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 17:01	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 17:01	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 17:01	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 17:01	U	1
Dibenzofuran	132-64-9	**0.000209**	0.0000500	0.00000530	mg/L	03.29.2019 17:01		1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 17:01	U	1
Fluorene	86-73-7	**0.0000325**	0.0000500	0.00000546	mg/L	03.29.2019 17:01	J	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 17:01	U	1
Naphthalene	91-20-3	**0.000416**	0.000500	0.00000451	mg/L	03.29.2019 17:01	J	1
Phenanthrene	85-01-8	**0.000184**	0.0000500	0.00000550	mg/L	03.29.2019 17:01		1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 17:01	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	109	41 - 128	%		
2-Fluorobiphenyl	106	55 - 135	%		
Terphenyl-D14	99	54 - 131	%		

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Moore to Jal #2

Sample Id: **MW23** Matrix: Water Sample Depth:

Lab Sample Id: 619091-007 Date Collected: 03.24.2019 11:15 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:51	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:51	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:51	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 04:51	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 04:51	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 04:51	U	
Total BTEX		<0.000500		0.000500	mg/L	04.03.2019 04:51	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	99	75 - 131	%		
1,2-Dichloroethane-D4	100	63 - 144	%		
Toluene-D8	100	80 - 117	%		

Sample Id: **MW11** Matrix: Water Sample Depth:

Lab Sample Id: 619091-008 Date Collected: 03.26.2019 11:25 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000560**	0.00100	0.000500	mg/L	04.03.2019 05:09	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:09	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 05:09	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:09	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 05:09	U	
Total BTEX		**0.000560**		0.000500	mg/L	04.03.2019 05:09	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	98	63 - 144	%		
Toluene-D8	99	80 - 117	%		

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Moore to Jal #2

Sample Id:	**MW12**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-009	Date Collected:	03.24.2019 11:45	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084372	Date Prep:	04.02.2019 17:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674929		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00602**	0.00100	0.000500	mg/L	04.03.2019 05:27		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:27	U	1
Ethylbenzene	100-41-4	**0.000990**	0.00100	0.000500	mg/L	04.03.2019 05:27	J	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 05:27	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:27	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 05:27	U	
Total BTEX		**0.00701**		0.000500	mg/L	04.03.2019 05:27		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	105	75 - 131	%		
1,2-Dichloroethane-D4	110	63 - 144	%		
Toluene-D8	101	80 - 117	%		

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Moore to Jal #2

Sample Id:	**MW6**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-010	Date Collected:	03.24.2019 13:45	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:09		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000420	0.0000515	0.00000421	mg/L	03.29.2019 17:19	U	1
Acenaphthylene	208-96-8	<0.00000750	0.0000515	0.00000753	mg/L	03.29.2019 17:19	U	1
Anthracene	120-12-7	<0.00000780	0.0000515	0.00000781	mg/L	03.29.2019 17:19	U	1
Benzo(a)anthracene	56-55-3	<0.00000650	0.0000515	0.00000652	mg/L	03.29.2019 17:19	U	1
Benzo(a)pyrene	50-32-8	**0.000786**	0.0000515	0.00000985	mg/L	03.29.2019 17:19		1
Benzo(b)fluoranthene	205-99-2	<0.00000940	0.0000515	0.00000935	mg/L	03.29.2019 17:19	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000820	0.0000515	0.00000821	mg/L	03.29.2019 17:19	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000800	0.0000515	0.00000803	mg/L	03.29.2019 17:19	U	1
Chrysene	218-01-9	**0.000270**	0.0000515	0.00000908	mg/L	03.29.2019 17:19		1
Dibenz(a,h)anthracene	53-70-3	<0.00000510	0.0000515	0.00000511	mg/L	03.29.2019 17:19	U	1
Dibenzofuran	132-64-9	<0.00000550	0.0000515	0.00000547	mg/L	03.29.2019 17:19	U	1
Fluoranthene	206-44-0	**0.0000623**	0.0000515	0.00000924	mg/L	03.29.2019 17:19		1
Fluorene	86-73-7	<0.00000560	0.0000515	0.00000563	mg/L	03.29.2019 17:19	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000510	0.0000515	0.00000511	mg/L	03.29.2019 17:19	U	1
Naphthalene	91-20-3	**0.0000675**	0.000515	0.00000465	mg/L	03.29.2019 17:19	J	1
Phenanthrene	85-01-8	<0.00000570	0.0000515	0.00000567	mg/L	03.29.2019 17:19	U	1
Pyrene	129-00-0	**0.0000828**	0.0000515	0.00000948	mg/L	03.29.2019 17:19		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	65	41 - 128	%		
2-Fluorobiphenyl	60	55 - 135	%		
Terphenyl-D14	128	54 - 131	%		

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Moore to Jal #2

Sample Id:	**MW6**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-010	Date Collected:	03.24.2019 13:45	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084372	Date Prep:	04.02.2019 17:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674929		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.645**	0.00500	0.00250	mg/L	04.03.2019 10:17		5
Toluene	108-88-3	**0.106**	0.00500	0.00250	mg/L	04.03.2019 10:17		5
Ethylbenzene	100-41-4	**0.0194**	0.00500	0.00250	mg/L	04.03.2019 10:17		5
m,p-Xylenes	179601-23-1	**0.0578**	0.0100	0.00500	mg/L	04.03.2019 10:17		5
o-Xylene	95-47-6	**0.0348**	0.00500	0.00250	mg/L	04.03.2019 10:17		5
Total Xylenes	1330-20-7	**0.0926**		0.00250	mg/L	04.03.2019 10:17		
Total BTEX		**0.863**		0.00250	mg/L	04.03.2019 10:17		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	106	75 - 131	%		
1,2-Dichloroethane-D4	104	63 - 144	%		
Toluene-D8	101	80 - 117	%		

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Moore to Jal #2

Sample Id: **MW4A** Matrix: Water Sample Depth:

Lab Sample Id: 619091-011 Date Collected: 03.25.2019 11:30 Date Received: 03.27.2019 11:50

Analytical Method: PAHs by 8270D SIM Prep Method: 3510C

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.29.2019 08:12

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674529

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.29.2019 15:49	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 15:49	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 15:49	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 15:49	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 15:49	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 15:49	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 15:49	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 15:49	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 15:49	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 15:49	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 15:49	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 15:49	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 15:49	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 15:49	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.29.2019 15:49	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 15:49	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 15:49	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	87	41 - 128	%		
2-Fluorobiphenyl	88	55 - 135	%		
Terphenyl-D14	97	54 - 131	%		

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Moore to Jal #2

Sample Id: **MW4A** Matrix: Water Sample Depth:

Lab Sample Id: 619091-011 Date Collected: 03.25.2019 11:30 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00704**	0.00100	0.000500	mg/L	04.03.2019 05:45		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:45	U	1
Ethylbenzene	100-41-4	**0.00123**	0.00100	0.000500	mg/L	04.03.2019 05:45		1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 05:45	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 05:45	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 05:45	U	
Total BTEX		**0.00827**		0.000500	mg/L	04.03.2019 05:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	107	75 - 131	%		
1,2-Dichloroethane-D4	101	63 - 144	%		
Toluene-D8	87	80 - 117	%		

Sample Id: **MW13** Matrix: Water Sample Depth:

Lab Sample Id: 619091-012 Date Collected: 03.25.2019 12:10 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00583**	0.00100	0.000500	mg/L	04.03.2019 06:03		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:03	U	1
Ethylbenzene	100-41-4	**0.00136**	0.00100	0.000500	mg/L	04.03.2019 06:03		1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 06:03	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:03	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 06:03	U	
Total BTEX		**0.00719**		0.000500	mg/L	04.03.2019 06:03		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	95	63 - 144	%		
Toluene-D8	113	80 - 117	%		

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Moore to Jal #2

Sample Id:	**MW8**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-013	Date Collected:	03.25.2019 12:30	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:15		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.29.2019 16:07	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 16:07	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 16:07	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 16:07	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 16:07	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 16:07	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 16:07	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 16:07	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 16:07	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 16:07	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 16:07	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 16:07	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 16:07	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 16:07	U	1
Naphthalene	91-20-3	**0.0000422**	0.000500	0.00000451	mg/L	03.29.2019 16:07	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 16:07	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 16:07	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	96	41 - 128	%		
2-Fluorobiphenyl	105	55 - 135	%		
Terphenyl-D14	101	54 - 131	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW8**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-013	Date Collected:	03.25.2019 12:30	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084372	Date Prep:	04.02.2019 17:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674929		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00342**	0.00100	0.000500	mg/L	04.03.2019 06:21		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:21	U	1
Ethylbenzene	100-41-4	**0.000890**	0.00100	0.000500	mg/L	04.03.2019 06:21	J	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 06:21	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:21	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 06:21	U	
Total BTEX		**0.00431**		0.000500	mg/L	04.03.2019 06:21		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	103	75 - 131	%		
1,2-Dichloroethane-D4	101	63 - 144	%		
Toluene-D8	99	80 - 117	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW3A**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-014	Date Collected:	03.25.2019 13:15	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:18		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.29.2019 16:25	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 16:25	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 16:25	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 16:25	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 16:25	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 16:25	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 16:25	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 16:25	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 16:25	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 16:25	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 16:25	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 16:25	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 16:25	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 16:25	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.29.2019 16:25	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 16:25	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 16:25	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	90	41 - 128	%		
2-Fluorobiphenyl	97	55 - 135	%		
Terphenyl-D14	84	54 - 131	%		

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Moore to Jal #2

Sample Id:	**MW3A**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-014	Date Collected:	03.25.2019 13:15	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084372	Date Prep:	04.02.2019 17:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674929		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000790**	0.00100	0.000500	mg/L	04.03.2019 06:39	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:39	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:39	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 06:39	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 06:39	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 06:39	U	
Total BTEX		**0.000790**		0.000500	mg/L	04.03.2019 06:39	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	107	75 - 131	%		
1,2-Dichloroethane-D4	104	63 - 144	%		
Toluene-D8	90	80 - 117	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW7A**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-015	Date Collected:	03.25.2019 14:40	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:21		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000505	0.00000412	mg/L	03.29.2019 17:37	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.29.2019 17:37	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.29.2019 17:37	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.29.2019 17:37	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.29.2019 17:37	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.29.2019 17:37	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000505	0.00000804	mg/L	03.29.2019 17:37	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.29.2019 17:37	U	1
Chrysene	218-01-9	**0.000149**	0.0000505	0.00000889	mg/L	03.29.2019 17:37		1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 17:37	U	1
Dibenzofuran	132-64-9	**0.0000429**	0.0000505	0.00000536	mg/L	03.29.2019 17:37	J	1
Fluoranthene	206-44-0	**0.0000399**	0.0000505	0.00000905	mg/L	03.29.2019 17:37	J	1
Fluorene	86-73-7	**0.0000561**	0.0000505	0.00000551	mg/L	03.29.2019 17:37		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 17:37	U	1
Naphthalene	91-20-3	**0.000125**	0.000505	0.00000455	mg/L	03.29.2019 17:37	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000505	0.00000556	mg/L	03.29.2019 17:37	U	1
Pyrene	129-00-0	**0.0000465**	0.0000505	0.00000929	mg/L	03.29.2019 17:37	J	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	111	41 - 128	%		
2-Fluorobiphenyl	87	55 - 135	%		
Terphenyl-D14	89	54 - 131	%		

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Moore to Jal #2

Sample Id:	**MW7A**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-015	Date Collected:	03.25.2019 14:40	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084448	Date Prep:	04.03.2019 12:45		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674972		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0513**	0.00100	0.000500	mg/L	04.03.2019 16:48		1
Toluene	108-88-3	**0.00539**	0.00100	0.000500	mg/L	04.03.2019 16:48		1
Ethylbenzene	100-41-4	**0.00148**	0.00100	0.000500	mg/L	04.03.2019 16:48		1
m,p-Xylenes	179601-23-1	**0.00261**	0.00200	0.00100	mg/L	04.03.2019 16:48		1
o-Xylene	95-47-6	**0.00189**	0.00100	0.000500	mg/L	04.03.2019 16:48		1
Total Xylenes	1330-20-7	**0.00450**		0.000500	mg/L	04.03.2019 16:48		
Total BTEX		**0.0627**		0.000500	mg/L	04.03.2019 16:48		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	104	75 - 131	%		
1,2-Dichloroethane-D4	84	63 - 144	%		
Toluene-D8	101	80 - 117	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW9**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-016	Date Collected:	03.25.2019 14:00	Date Received:	03.27.2019 11:50
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.29.2019 08:24		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000505	0.00000412	mg/L	03.29.2019 17:55	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.29.2019 17:55	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.29.2019 17:55	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.29.2019 17:55	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.29.2019 17:55	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.29.2019 17:55	U	1
Benzo(g,h,i)perylene	191-24-2	**0.0000719**	0.0000505	0.00000804	mg/L	03.29.2019 17:55		1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.29.2019 17:55	U	1
Chrysene	218-01-9	**0.000198**	0.0000505	0.00000889	mg/L	03.29.2019 17:55		1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 17:55	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000505	0.00000536	mg/L	03.29.2019 17:55	U	1
Fluoranthene	206-44-0	**0.0000735**	0.0000505	0.00000905	mg/L	03.29.2019 17:55		1
Fluorene	86-73-7	<0.00000550	0.0000505	0.00000551	mg/L	03.29.2019 17:55	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 17:55	U	1
Naphthalene	91-20-3	**0.000126**	0.000505	0.00000455	mg/L	03.29.2019 17:55	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000505	0.00000556	mg/L	03.29.2019 17:55	U	1
Pyrene	129-00-0	**0.000105**	0.0000505	0.00000929	mg/L	03.29.2019 17:55		1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	91	41 - 128	%		
2-Fluorobiphenyl	68	55 - 135	%		
Terphenyl-D14	70	54 - 131	%		

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Moore to Jal #2

Sample Id: **MW9** Matrix: Water Sample Depth:

Lab Sample Id: 619091-016 Date Collected: 03.25.2019 14:00 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0788**	0.00100	0.000500	mg/L	04.03.2019 09:41		1
Toluene	108-88-3	**0.00283**	0.00100	0.000500	mg/L	04.03.2019 09:41		1
Ethylbenzene	100-41-4	**0.0378**	0.00100	0.000500	mg/L	04.03.2019 09:41		1
m,p-Xylenes	179601-23-1	**0.00472**	0.00200	0.00100	mg/L	04.03.2019 09:41		1
o-Xylene	95-47-6	**0.00559**	0.00100	0.000500	mg/L	04.03.2019 09:41		1
Total Xylenes	1330-20-7	**0.0103**		0.000500	mg/L	04.03.2019 09:41		
Total BTEX		**0.130**		0.000500	mg/L	04.03.2019 09:41		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	82	63 - 144	%		
Toluene-D8	98	80 - 117	%		

Sample Id: **MW5** Matrix: Water Sample Depth:

Lab Sample Id: 619091-017 Date Collected: 03.26.2019 09:15 Date Received: 03.27.2019 11:50

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0183**	0.00100	0.000500	mg/L	04.03.2019 06:57		1
Toluene	108-88-3	**0.00408**	0.00100	0.000500	mg/L	04.03.2019 06:57		1
Ethylbenzene	100-41-4	**0.00182**	0.00100	0.000500	mg/L	04.03.2019 06:57		1
m,p-Xylenes	179601-23-1	**0.00398**	0.00200	0.00100	mg/L	04.03.2019 06:57		1
o-Xylene	95-47-6	**0.00283**	0.00100	0.000500	mg/L	04.03.2019 06:57		1
Total Xylenes	1330-20-7	**0.00681**		0.000500	mg/L	04.03.2019 06:57		
Total BTEX		**0.0310**		0.000500	mg/L	04.03.2019 06:57		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	111	75 - 131	%		
1,2-Dichloroethane-D4	93	63 - 144	%		
Toluene-D8	94	80 - 117	%		

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Talon/LPE Co., Amarillo, TX

Moore to Jal #2

Sample Id:	**MW10**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	619091-018	Date Collected:	03.26.2019 09:40	Date Received:	03.27.2019 11:50
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084448	Date Prep:	04.03.2019 12:45		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674972		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00203**	0.00100	0.000500	mg/L	04.03.2019 16:30		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 16:30	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 16:30	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 16:30	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 16:30	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.03.2019 16:30	U	
Total BTEX		**0.00203**		0.000500	mg/L	04.03.2019 16:30		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	107	75 - 131	%		
1,2-Dichloroethane-D4	103	63 - 144	%		
Toluene-D8	85	80 - 117	%		

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Talon/LPE Co., Amarillo, TX
Moore to Jal #2

Sample Id:	**7674529-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7674529-1-BLK	Date Collected:		Date Received:	
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083852	Date Prep:	03.28.2019 15:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674529		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.28.2019 17:24	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.28.2019 17:24	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.28.2019 17:24	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.28.2019 17:24	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.28.2019 17:24	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.28.2019 17:24	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.28.2019 17:24	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.28.2019 17:24	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.28.2019 17:24	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.28.2019 17:24	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.28.2019 17:24	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.28.2019 17:24	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.28.2019 17:24	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.28.2019 17:24	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.28.2019 17:24	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.28.2019 17:24	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.28.2019 17:24	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	95	41 - 128	%		
2-Fluorobiphenyl	99	55 - 135	%		
Terphenyl-D14	101	54 - 131	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX
Moore to Jal #2

Sample Id: **7674871-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674871-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084281 Date Prep: 04.02.2019 10:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674871

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.02.2019 15:49	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 15:49	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.02.2019 15:49	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 15:49	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 15:49	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	99	63 - 144	%		
Toluene-D8	98	80 - 117	%		

Sample Id: **7674929-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674929-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by SW 8260B Prep Method: 5030B

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084372 Date Prep: 04.02.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674929

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.03.2019 03:20	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 03:20	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 03:20	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 03:20	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 03:20	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	102	75 - 131	%		
1,2-Dichloroethane-D4	97	63 - 144	%		
Toluene-D8	98	80 - 117	%		

Certificate of Analytical Results
619091

Talon/LPE Co., Amarillo, TX
Moore to Jal #2

Sample Id:	**7674972-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7674972-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3084448	Date Prep:	04.03.2019 12:45		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674972		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	04.03.2019 15:54	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.03.2019 15:54	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.03.2019 15:54	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.03.2019 15:54	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.03.2019 15:54	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	102	75 - 131	%		
1,2-Dichloroethane-D4	103	63 - 144	%		
Toluene-D8	109	80 - 117	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2

Work Orders : 619091 **Project ID:** 700376 045 04

Lab Batch #: 3084281 **Sample:** 7674871-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.02.2019 14:38 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0494	0.0500	99	75-131	
1,2-Dichloroethane-D4	0.0492	0.0500	98	63-144	
Toluene-D8	0.0523	0.0500	105	80-117	

Lab Batch #: 3084281 **Sample:** 7674871-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.02.2019 14:56 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0494	0.0500	99	75-131	
1,2-Dichloroethane-D4	0.0411	0.0500	82	63-144	
Toluene-D8	0.0467	0.0500	93	80-117	

Lab Batch #: 3084281 **Sample:** 619061-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.02.2019 15:14 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0507	0.0500	101	75-131	
1,2-Dichloroethane-D4	0.0464	0.0500	93	63-144	
Toluene-D8	0.0456	0.0500	91	80-117	

Lab Batch #: 3084281 **Sample:** 7674871-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.02.2019 15:49 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0498	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0495	0.0500	99	63-144	
Toluene-D8	0.0490	0.0500	98	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2

Work Orders : 619091 **Project ID:** 700376 045 04

Lab Batch #: 3084372 **Sample:** 7674929-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 00:41 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0510	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0423	0.0500	85	63-144	
Toluene-D8	0.0475	0.0500	95	80-117	

Lab Batch #: 3084372 **Sample:** 7674929-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 00:59 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0510	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0455	0.0500	91	63-144	
Toluene-D8	0.0501	0.0500	100	80-117	

Lab Batch #: 3084372 **Sample:** 619206-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 01:17 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0520	0.0500	104	75-131	
1,2-Dichloroethane-D4	0.0452	0.0500	90	63-144	
Toluene-D8	0.0479	0.0500	96	80-117	

Lab Batch #: 3084372 **Sample:** 7674929-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 03:20 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0510	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0484	0.0500	97	63-144	
Toluene-D8	0.0492	0.0500	98	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2

Work Orders : 619091 **Project ID:** 700376 045 04

Lab Batch #: 3084448 **Sample:** 7674972-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 14:10 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0525	0.0500	105	75-131	
1,2-Dichloroethane-D4	0.0460	0.0500	92	63-144	
Toluene-D8	0.0434	0.0500	87	80-117	

Lab Batch #: 3084448 **Sample:** 619299-006 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 14:46 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0511	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0488	0.0500	98	63-144	
Toluene-D8	0.0456	0.0500	91	80-117	

Lab Batch #: 3084448 **Sample:** 619299-006 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 15:04 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0504	0.0500	101	75-131	
1,2-Dichloroethane-D4	0.0529	0.0500	106	63-144	
Toluene-D8	0.0464	0.0500	93	80-117	

Lab Batch #: 3084448 **Sample:** 7674972-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 15:54 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0512	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0517	0.0500	103	63-144	
Toluene-D8	0.0545	0.0500	109	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2

Work Orders : 619091 **Project ID:** 700376 045 04

Lab Batch #: 3084448 **Sample:** 7674972-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 04.03.2019 17:41 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0519	0.0500	104	75-131	
1,2-Dichloroethane-D4	0.0520	0.0500	104	63-144	
Toluene-D8	0.0474	0.0500	95	80-117	

Lab Batch #: 3083852 **Sample:** 7674529-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.28.2019 13:30 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.996	1.00	100	41-128	
2-Fluorobiphenyl	0.964	1.00	96	55-135	
Terphenyl-D14	1.06	1.00	106	54-131	

Lab Batch #: 3083852 **Sample:** 7674529-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.28.2019 13:48 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.910	1.00	91	41-128	
2-Fluorobiphenyl	0.965	1.00	97	55-135	
Terphenyl-D14	1.00	1.00	100	54-131	

Lab Batch #: 3083852 **Sample:** 7674529-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.28.2019 17:24 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.950	1.00	95	41-128	
2-Fluorobiphenyl	0.988	1.00	99	55-135	
Terphenyl-D14	1.01	1.00	101	54-131	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Moore to Jal #2

Work Order #: 619091 **Project ID:** 700376 045 04

Analyst: KRP **Date Prepared:** 04.02.2019 **Date Analyzed:** 04.02.2019

Lab Batch ID: 3084281 **Sample:** 7674871-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000500	0.0500	0.0482	96	0.0500	0.0443	89	8	66-142	20	
Toluene	<0.000500	0.0500	0.0526	105	0.0500	0.0486	97	8	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0499	100	0.0500	0.0503	101	1	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.101	101	0.100	0.103	103	2	75-125	20	
o-Xylene	<0.000500	0.0500	0.0485	97	0.0500	0.0503	101	4	75-125	20	

Analyst: KRP **Date Prepared:** 04.02.2019 **Date Analyzed:** 04.03.2019

Lab Batch ID: 3084372 **Sample:** 7674929-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000500	0.0500	0.0485	97	0.0500	0.0470	94	3	66-142	20	
Toluene	<0.000500	0.0500	0.0496	99	0.0500	0.0512	102	3	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0520	104	0.0500	0.0502	100	4	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.105	105	0.100	0.103	103	2	75-125	20	
o-Xylene	<0.000500	0.0500	0.0521	104	0.0500	0.0507	101	3	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Moore to Jal #2

Work Order #: 619091 **Project ID:** 700376 045 04

Analyst: KRP **Date Prepared:** 04.03.2019 **Date Analyzed:** 04.03.2019

Lab Batch ID: 3084448 **Sample:** 7674972-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000500	0.0500	0.0457	91	0.0500	0.0525	105	14	66-142	20	
Toluene	<0.000500	0.0500	0.0423	85	0.0500	0.0491	98	15	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0489	98	0.0500	0.0515	103	5	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.0984	98	0.100	0.102	102	4	75-125	20	
o-Xylene	<0.000500	0.0500	0.0455	91	0.0500	0.0510	102	11	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Moore to Jal #2

Work Order #: 619091 **Project ID:** 700376 045 04

Analyst: EKL **Date Prepared:** 03.28.2019 **Date Analyzed:** 03.28.2019

Lab Batch ID: 3083852 **Sample:** 7674529-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

PAHs by 8270D SIM Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Acenaphthene	<0.00000410	0.00100	0.000904	90	0.00100	0.000898	90	1	37-117	25	
Acenaphthylene	<0.00000730	0.00100	0.000911	91	0.00100	0.000895	90	2	37-119	25	
Anthracene	<0.00000760	0.00100	0.000976	98	0.00100	0.000975	98	0	45-121	25	
Benzo(a)anthracene	<0.00000630	0.00100	0.000958	96	0.00100	0.000957	96	0	51-113	25	
Benzo(a)pyrene	<0.00000960	0.00100	0.000996	100	0.00100	0.000988	99	1	45-127	25	
Benzo(b)fluoranthene	<0.00000910	0.00100	0.000991	99	0.00100	0.000982	98	1	56-110	25	
Benzo(g,h,i)perylene	<0.00000800	0.00100	0.00117	117	0.00100	0.00116	116	1	47-122	25	
Benzo(k)fluoranthene	<0.00000780	0.00100	0.000903	90	0.00100	0.000893	89	1	58-123	25	
Chrysene	<0.00000880	0.00100	0.00100	100	0.00100	0.000980	98	2	52-113	25	
Dibenz(a,h)anthracene	<0.00000500	0.00100	0.000920	92	0.00100	0.000897	90	3	48-126	25	
Dibenzofuran	<0.00000530	0.00100	0.000919	92	0.00100	0.000956	96	4	38-118	25	
Fluoranthene	<0.00000900	0.00100	0.00105	105	0.00100	0.00105	105	0	51-124	25	
Fluorene	<0.00000550	0.00100	0.000926	93	0.00100	0.000930	93	0	42-116	25	
Indeno(1,2,3-c,d)Pyrene	<0.00000500	0.00100	0.00108	108	0.00100	0.00107	107	1	48-123	25	
Naphthalene	<0.00000450	0.00100	0.000897	90	0.00100	0.000879	88	2	35-116	25	
Phenanthrene	<0.00000550	0.00100	0.000970	97	0.00100	0.00101	101	4	46-113	25	
Pyrene	<0.00000920	0.00100	0.000934	93	0.00100	0.000926	93	1	47-124	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Moore to Jal #2

Work Order #: 619091

Lab Batch #: 3084281 **Project ID:** 700376 045 04

Date Analyzed: 04.02.2019 **Date Prepared:** 04.02.2019 **Analyst:** KRP

QC- Sample ID: 619061-001 S **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

BTEX by SW 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	<0.000500	0.0500	0.0497	99	66-142	
Toluene	<0.000500	0.0500	0.0475	95	59-139	
Ethylbenzene	<0.000500	0.0500	0.0498	100	75-125	
m,p-Xylenes	<0.00100	0.100	0.0712	71	75-125	X
o-Xylene	<0.000500	0.0500	0.0482	96	75-125	

Lab Batch #: 3084372

Date Analyzed: 04.03.2019 **Date Prepared:** 04.02.2019 **Analyst:** KRP

QC- Sample ID: 619206-001 S **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

MATRIX / MATRIX SPIKE RECOVERY STUDY

BTEX by SW 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Benzene	<0.000500	0.0500	0.0455	91	66-142	
Toluene	<0.000500	0.0500	0.0479	96	59-139	
Ethylbenzene	<0.000500	0.0500	0.0499	100	75-125	
m,p-Xylenes	<0.00100	0.100	0.100	100	75-125	
o-Xylene	<0.000500	0.0500	0.0499	100	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Moore to Jal #2

Work Order # : 619091 **Project ID:** 700376 045 04

Lab Batch ID: 3084448 **QC- Sample ID:** 619299-006 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 04.03.2019 **Date Prepared:** 04.03.2019 **Analyst:** KRP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by SW 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00572	0.0500	0.0539	96	0.0500	0.0518	92	4	66-142	20	
Toluene	<0.000500	0.0500	0.0489	98	0.0500	0.0520	104	6	59-139	20	
Ethylbenzene	0.0202	0.0500	0.0807	121	0.0500	0.0725	105	11	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.103	103	0.100	0.108	108	5	75-125	20	
o-Xylene	<0.000500	0.0500	0.0499	100	0.0500	0.0545	109	9	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 2

Work Order No: 619091

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon	Company Name:	Pipeline
Address:	408 W. Texas Ave.	Address:	ATTN Camille Bryant
State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS # 2002-10273
Phone:	575-616-4022 or 575-746-8905	Email:	dadkins@talonlpe.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project:	Moore to Jal #2	Turn Around	
Project Number:	700376 045 04	Routine	☒
P.O. Number:	SRS # 2002-10273	Rush:	
Sampler's Name:	Riggs	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	8/1.7	Thermometer ID	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH	Sample Comments
MW21		3-26-19	1225PM			X		
MW20		3-26-19	12pm			X		
MW19		3-26-19	1005pm			X		
MW18		3-26-19	1030pm			X	X	
MW17		3-26-19	11AM			X		
MW22		3-24-19	1050AM			X	X	
MW23		3-24-19	1115AM			X	X	
MW11		3-26-19	1125AM			X		
MW12		3-24-19	1145AM			X		
MW6		3-24-19	145pm			X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Bob Riggs	Jessica Fuentes	3/26/19 1:40	2 Jessica Fuentes		3/27/19 1150
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 619091

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon	Company Name:	Pipeline
Address:	408 W. Texas Ave.	Address:	ATTN Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS # 2002-10273
Phone:	575-616-4022 or 575-746-8905	Email:	dadkins@talonlpe.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Moore TO Jal #2	Turn Around	
Project Number:	700376 045 04	Routine	☒
P.O. Number:	SRS # 2002-10273	Rush:	
Sampler's Name:	Bill Riggs	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.8/1.7	Thermometer ID	Y8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH
MW4A		3-25-19	1130AM			X	X
MW13		3-25-19	1210PM			X	
MW8		3-25-19	1230PM			X	X
MW3A		3-25-19	115PM			X	X
MW7A		3-25-19	240PM			X	X
MW9		325-19	2PM			X	X
MW5		3-26-19	915AM			X	
MW10		3-26-19	940AM			X	

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Bill Riggs	3 Jessica Kuentz	3/26/19 1:40	2 Jessica Kuentz	4	3/27/19 150
5			6		

ORIGIN ID:HL
**
MAIL SERVICES
4008 N GRIMES
HOBBS, NM 88240
UNITED STATES US

BILL RECIPIENT

SHIP DATE: 26MAR19
ACTWGT: 8.00 LB MAN
CAD: 0909328/CAFE3211
DIMS: 12x12x12 IN

TO XENCO LABORATORIES
FEDEX EXPRESS SHIP CENTER
FEDEX SHIP CENTER
3600 COUNTY RD 1276 S

MIDLAND TX 79711
(432) 563-1800

INV:
PO:
REF:

DEPT:

FedEx Express

TRK# 4705 2520 4885

0201

WED - 27 MAR HOLD
PRIORITY OVERNIGHT
HLD
MAFA
LBB
TX-US

41 MAFA

551C1/46D3/104C

Inter-Office Shipment

IOS Number : 125378

Date/Time:	03.27.2019 14:05	Created by:	Katie Lowe	Please send report to:	Wendy Walfoort
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	774817778965	E-Mail:	wendy.walfoort@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
619091-001	W	MW21	03.26.2019 12:25	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-002	W	MW20	03.26.2019 12:00	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-003	W	MW19	03.26.2019 10:05	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-004	W	MW18	03.26.2019 10:30	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/02/19 10:30**	WEW	ACNP ACNPY ANTH BZ	
619091-004	W	MW18	03.26.2019 10:30	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-005	W	MW17	03.26.2019 11:00	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-006	W	MW22	03.24.2019 10:50	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**03/31/19 10:50**	WEW	ACNP ACNPY ANTH BZ	
619091-006	W	MW22	03.24.2019 10:50	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/07/19	WEW	BZ BZME EBZ XYLENE	
619091-007	W	MW23	03.24.2019 11:15	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**03/31/19 11:15**	WEW	ACNP ACNPY ANTH BZ	
619091-007	W	MW23	03.24.2019 11:15	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/07/19	WEW	BZ BZME EBZ XYLENE	
619091-008	W	MW11	03.26.2019 11:25	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-009	W	MW12	03.24.2019 11:45	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/07/19	WEW	BZ BZME EBZ XYLENE	
619091-010	W	MW6	03.24.2019 13:45	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**03/31/19 13:45**	WEW	ACNP ACNPY ANTH BZ	
619091-010	W	MW6	03.24.2019 13:45	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/07/19	WEW	BZ BZME EBZ XYLENE	
619091-011	W	MW4A	03.25.2019 11:30	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/01/19 11:30**	WEW	ACNP ACNPY ANTH BZ	
619091-011	W	MW4A	03.25.2019 11:30	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	
619091-012	W	MW13	03.25.2019 12:10	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	
619091-013	W	MW8	03.25.2019 12:30	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/01/19 12:30**	WEW	ACNP ACNPY ANTH BZ	
619091-013	W	MW8	03.25.2019 12:30	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	
619091-014	W	MW3A	03.25.2019 13:15	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/01/19 13:15**	WEW	ACNP ACNPY ANTH BZ	
619091-014	W	MW3A	03.25.2019 13:15	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	
619091-015	W	MW7A	03.25.2019 14:40	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/01/19 14:40**	WEW	ACNP ACNPY ANTH BZ	
619091-015	W	MW7A	03.25.2019 14:40	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	
619091-016	W	MW9	03.25.2019 14:00	SIM_PAH_D	PAHs by 8270D SIM	04.02.2019	**04/01/19 14:00**	WEW	ACNP ACNPY ANTH BZ	
619091-016	W	MW9	03.25.2019 14:00	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/08/19	WEW	BZ BZME EBZ XYLENE	

Inter-Office Shipment

IOS Number : 125378

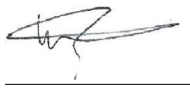
Date/Time:	03.27.2019 14:05	Created by:	Katie Lowe	Please send report to:	Wendy Walfoort
Lab# From:	**Midland**	Delivery Priority:		Address:	1211 W. Florida Ave
Lab# To:	**Houston**	Air Bill No.:	774817778965	E-Mail:	wendy.walfoort@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
619091-017	W	MW5	03.26.2019 09:15	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	
619091-018	W	MW10	03.26.2019 09:40	SW8260BTX	BTEX by SW 8260B	04.02.2019	04/09/19	WEW	BZ BZME EBZ XYLENE	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Katie Lowe

Date Relinquished: 03.27.2019

Received By: 
Taha Hedib

Date Received: 03.28.2019 10:00

Cooler Temperature: 1.7

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 125378

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : hou-068

Sent By: Katie Lowe **Date Sent:** 03/27/2019 02:05 PM

Received By: Taha Hedib **Date Received:** 03/28/2019 10:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 03/28/2019

Taha Hedib

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon/LPE Co.

Date/ Time Received: 03/27/2019 11:50:00 AM

Work Order #: 619091

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Xenco Stafford
#18 Water VOC samples have zero headspace?	**Yes**	

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

Analyst: BT

PH Device/Lot#: A023690

Checklist completed by: Katie Lowe Date: 03/28/2019

Checklist reviewed by: Allison Johnson Date: 03/28/2019

Analytical Report 628714

for

Talon LPE-Artesia

Project Manager: David Adkins

Moore to Jal #2 (MTJ#2)

700376.045.04

02-JUL-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Table of Contents

02-JUL-19

Project Manager: **David Adkins**
Talon LPE-Artesia
408 West Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **628714**
Moore to Jal #2 (MTJ#2)
Project Address:

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628714. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 628714 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 628714

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-13	W	06-19-19 11:50		628714-001
MW-4A	W	06-19-19 13:20		628714-002
MW-8	W	06-19-19 14:05		628714-003
MW-3A	W	06-19-19 15:25		628714-004
MW-12	W	06-20-19 09:25		628714-005
MW-10	W	06-20-19 10:00		628714-006
MW-6	W	06-20-19 10:25		628714-007
MW-9	W	06-20-19 11:30		628714-008
MW-19	W	06-20-19 12:25		628714-009
MW-18	W	06-20-19 13:20		628714-010
MW-17	W	06-20-19 15:10		628714-011
MW-7	W	06-21-19 09:20		628714-012
MW 11	W	06-21-19 10:25		628714-013
MW 22	W	06-21-19 10:55		628714-014
MW 23	W	06-21-19 11:30		628714-015
MW 21	W	06-21-19 14:35		628714-016
MW-20	W	06-21-19 13:45		628714-017
MW-5	W	06-20-19 11:30		628714-018

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW-13** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-001 Date Collected: 06.19.19 11.50 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093970 Date Prep: 06.30.19 09.20

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681070

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00380**	0.00100	0.000480	mg/L	07.01.19 09:43		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	07.01.19 09:43	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	07.01.19 09:43	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	07.01.19 09:43	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	07.01.19 09:43	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	07.01.19 09:43	U	
Total BTEX		**0.00380**		0.000270	mg/L	07.01.19 09:43		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	95	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Sample Id: **MW-4A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-002 Date Collected: 06.19.19 13.20 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093970 Date Prep: 06.30.19 09.20

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681070

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00600**	0.00500	0.00240	mg/L	07.01.19 10:07		5
Toluene	108-88-3	**0.00400**	0.00500	0.00256	mg/L	07.01.19 10:07	J	5
Ethylbenzene	100-41-4	<0.00308	0.00500	0.00308	mg/L	07.01.19 10:07	U	5
m_p-Xylenes	179601-23-1	<0.00227	0.0100	0.00227	mg/L	07.01.19 10:07	U	5
o-Xylene	95-47-6	<0.00135	0.00500	0.00135	mg/L	07.01.19 10:07	U	5
Xylenes, Total	1330-20-7	<0.00135		0.00135	mg/L	07.01.19 10:07	U	
Total BTEX		**0.0100**		0.00135	mg/L	07.01.19 10:07		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	97	66 - 120	%		
4-Bromofluorobenzene	95	67 - 120	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW-8** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-003 Date Collected: 06.19.19 14.05 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00600**	0.00100	0.000480	mg/L	06.30.19 14:40		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 14:40	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 14:40	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 14:40	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 14:40	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 14:40	U	
Total BTEX		**0.00600**		0.000270	mg/L	06.30.19 14:40		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	90	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Sample Id: **MW-3A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-004 Date Collected: 06.19.19 15.25 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: JHB % Moist: Tech: JHB

Seq Number: 3094176 Date Prep: 06.30.19 13.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681043

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0224**	0.00200	0.000408	mg/L	07.01.19 17:56		1
Toluene	108-88-3	**0.0428**	0.00200	0.000367	mg/L	07.01.19 17:56		1
Ethylbenzene	100-41-4	**0.0235**	0.00200	0.000657	mg/L	07.01.19 17:56		1
m_p-Xylenes	179601-23-1	**0.0208**	0.00400	0.000630	mg/L	07.01.19 17:56		1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	07.01.19 17:56	U	1
Xylenes, Total	1330-20-7	**0.0208**		0.000630	mg/L	07.01.19 17:56		
Total BTEX		**0.110**		0.000367	mg/L	07.01.19 17:56		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW-12** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-005 Date Collected: 06.20.19 09.25 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 15:07	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 15:07	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 15:07	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 15:07	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 15:07	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 15:07	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 15:07	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	90	66 - 120	%		
4-Bromofluorobenzene	92	67 - 120	%		

Sample Id: **MW-10** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-006 Date Collected: 06.20.19 10.00 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 15:34	U	1
Toluene	108-88-3	**0.00130**	0.00100	0.000512	mg/L	06.30.19 15:34		1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 15:34	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 15:34	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 15:34	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 15:34	U	
Total BTEX		**0.00130**		0.000270	mg/L	06.30.19 15:34		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	90	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ#2)

Sample Id: **MW-6** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-007 Date Collected: 06.20.19 10.25 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.170**	0.00100	0.000480	mg/L	06.30.19 16:01		1
Toluene	108-88-3	**0.00290**	0.00100	0.000512	mg/L	06.30.19 16:01		1
Ethylbenzene	100-41-4	**0.00330**	0.00100	0.000616	mg/L	06.30.19 16:01		1
m_p-Xylenes	179601-23-1	**0.00620**	0.00200	0.000454	mg/L	06.30.19 16:01		1
o-Xylene	95-47-6	**0.00530**	0.00100	0.000270	mg/L	06.30.19 16:01		1
Xylenes, Total	1330-20-7	**0.0115**		0.000270	mg/L	06.30.19 16:01		
Total BTEX		**0.188**		0.000270	mg/L	06.30.19 16:01		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	84	66 - 120	%		
4-Bromofluorobenzene	92	67 - 120	%		

Sample Id: **MW-9** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-008 Date Collected: 06.20.19 11.30 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.384**	0.00100	0.000480	mg/L	06.30.19 16:28		1
Toluene	108-88-3	**0.0153**	0.00100	0.000512	mg/L	06.30.19 16:28		1
Ethylbenzene	100-41-4	**0.0654**	0.00100	0.000616	mg/L	06.30.19 16:28		1
m_p-Xylenes	179601-23-1	**0.0670**	0.00200	0.000454	mg/L	06.30.19 16:28		1
o-Xylene	95-47-6	**0.0416**	0.00100	0.000270	mg/L	06.30.19 16:28		1
Xylenes, Total	1330-20-7	**0.109**		0.000270	mg/L	06.30.19 16:28		
Total BTEX		**0.573**		0.000270	mg/L	06.30.19 16:28		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	109	66 - 120	%		
4-Bromofluorobenzene	95	67 - 120	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ#2)

Sample Id: **MW-19** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-009 Date Collected: 06.20.19 12.25 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 16:55	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 16:55	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 16:55	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 16:55	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 16:55	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 16:55	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 16:55	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	89	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Sample Id: **MW-18** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-010 Date Collected: 06.20.19 13.20 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 17:22	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 17:22	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 17:22	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 17:22	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 17:22	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 17:22	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 17:22	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	94	66 - 120	%		
4-Bromofluorobenzene	95	67 - 120	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW-17** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-011 Date Collected: 06.20.19 15.10 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 17:49	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 17:49	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 17:49	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 17:49	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 17:49	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 17:49	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 17:49	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Sample Id: **MW-7** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-012 Date Collected: 06.21.19 09.20 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3094071 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681141

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.323**	0.00500	0.00240	mg/L	07.01.19 11:22		5
Toluene	108-88-3	<0.00256	0.00500	0.00256	mg/L	07.01.19 11:22	U	5
Ethylbenzene	100-41-4	<0.00308	0.00500	0.00308	mg/L	07.01.19 11:22	U	5
m_p-Xylenes	179601-23-1	**0.00900**	0.0100	0.00227	mg/L	07.01.19 11:22	J	5
o-Xylene	95-47-6	**0.00600**	0.00500	0.00135	mg/L	07.01.19 11:22		5
Xylenes, Total	1330-20-7	**0.0150**		0.00135	mg/L	07.01.19 11:22		
Total BTEX		**0.338**		0.00135	mg/L	07.01.19 11:22		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	78	66 - 120	%		
4-Bromofluorobenzene	84	67 - 120	%		

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Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ#2)

Sample Id: **MW 11** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-013 Date Collected: 06.21.19 10.25 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3094071 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681141

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00300**	0.00100	0.000480	mg/L	07.01.19 13:09		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	07.01.19 13:09	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	07.01.19 13:09	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	07.01.19 13:09	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	07.01.19 13:09	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	07.01.19 13:09	U	
Total BTEX		**0.00300**		0.000270	mg/L	07.01.19 13:09		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	91	66 - 120	%		
4-Bromofluorobenzene	87	67 - 120	%		

Sample Id: **MW 22** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-014 Date Collected: 06.21.19 10.55 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 21:24	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 21:24	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 21:24	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 21:24	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 21:24	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 21:24	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 21:24	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	94	67 - 120	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW 23** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-015 Date Collected: 06.21.19 11.30 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 21:51	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 21:51	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 21:51	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 21:51	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 21:51	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 21:51	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 21:51	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	90	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Sample Id: **MW 21** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-016 Date Collected: 06.21.19 14.35 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 22:18	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 22:18	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 22:18	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 22:18	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 22:18	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 22:18	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 22:18	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	93	66 - 120	%		
4-Bromofluorobenzene	94	67 - 120	%		

Certificate of Analytical Results
628714

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **MW-20** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-017 Date Collected: 06.21.19 13.45 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00680**	0.00100	0.000480	mg/L	06.30.19 22:45		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 22:45	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 22:45	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 22:45	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 22:45	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 22:45	U	
Total BTEX		**0.00680**		0.000270	mg/L	06.30.19 22:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	91	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Sample Id: **MW-5** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628714-018 Date Collected: 06.20.19 11.30 Date Received: 06.21.19 15.52

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0440**	0.00100	0.000480	mg/L	06.30.19 23:12		1
Toluene	108-88-3	**0.0414**	0.00100	0.000512	mg/L	06.30.19 23:12		1
Ethylbenzene	100-41-4	**0.00270**	0.00100	0.000616	mg/L	06.30.19 23:12		1
m_p-Xylenes	179601-23-1	**0.0107**	0.00200	0.000454	mg/L	06.30.19 23:12		1
o-Xylene	95-47-6	**0.00610**	0.00100	0.000270	mg/L	06.30.19 23:12		1
Xylenes, Total	1330-20-7	**0.0168**		0.000270	mg/L	06.30.19 23:12		
Total BTEX		**0.105**		0.000270	mg/L	06.30.19 23:12		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	82	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Certificate of Analytical Results
628714

Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ#2)

Sample Id: **7681043-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7681043-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: JHB % Moist: Tech: JHB

Seq Number: 3094176 Date Prep: 06.30.19 13.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681043

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	07.01.19 12:21	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	07.01.19 12:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	07.01.19 12:21	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	07.01.19 12:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	07.01.19 12:21	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	07.01.19 12:21	U	
Total BTEX		<0.000367		0.000367	mg/L	07.01.19 12:21	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

Sample Id: **7681061-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7681061-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093953 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681061

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.30.19 14:13	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.30.19 14:13	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.30.19 14:13	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.30.19 14:13	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.30.19 14:13	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.30.19 14:13	U	
Total BTEX		<0.000270		0.000270	mg/L	06.30.19 14:13	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	94	66 - 120	%		
4-Bromofluorobenzene	92	67 - 120	%		

Certificate of Analytical Results
628714

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ#2)

Sample Id: **7681070-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7681070-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093970 Date Prep: 06.30.19 09.20

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681070

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	07.01.19 00:33	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	07.01.19 00:33	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	07.01.19 00:33	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	07.01.19 00:33	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	07.01.19 00:33	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	07.01.19 00:33	U	
Total BTEX		<0.000270		0.000270	mg/L	07.01.19 00:33	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	90	67 - 120	%		

Sample Id: **7681141-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7681141-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3094071 Date Prep: 06.30.19 11.15

Subcontractor: SUB: T104704400-18-16 Prep seq: 7681141

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	07.01.19 02:19	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	07.01.19 02:19	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	07.01.19 02:19	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	07.01.19 02:19	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	07.01.19 02:19	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	07.01.19 02:19	U	
Total BTEX		<0.000270		0.000270	mg/L	07.01.19 02:19	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Orders : 628714,

Project ID: 700376.045.04

Lab Batch #: 3093953 **Sample:** 7681061-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/19 12:25

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0866	0.100	87	66-120	
4-Bromofluorobenzene	0.0944	0.100	94	67-120	

Lab Batch #: 3093953 **Sample:** 7681061-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/19 12:52

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0866	0.100	87	66-120	
4-Bromofluorobenzene	0.0931	0.100	93	67-120	

Lab Batch #: 3093953 **Sample:** 7681061-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/19 14:13

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0938	0.100	94	66-120	
4-Bromofluorobenzene	0.0918	0.100	92	67-120	

Lab Batch #: 3093953 **Sample:** 628714-003 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/30/19 19:10

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0834	0.100	83	66-120	
4-Bromofluorobenzene	0.0920	0.100	92	67-120	

Lab Batch #: 3093953 **Sample:** 628714-003 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/30/19 19:37

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0849	0.100	85	66-120	
4-Bromofluorobenzene	0.0914	0.100	91	67-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Orders : 628714,

Project ID: 700376.045.04

Lab Batch #: 3093970 **Sample:** 7681070-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/19 22:56

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0933	0.100	93	66-120	
4-Bromofluorobenzene	0.0893	0.100	89	67-120	

Lab Batch #: 3093970 **Sample:** 7681070-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/30/19 23:20

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0948	0.100	95	66-120	
4-Bromofluorobenzene	0.0858	0.100	86	67-120	

Lab Batch #: 3093970 **Sample:** 7681070-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 00:33

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0916	0.100	92	66-120	
4-Bromofluorobenzene	0.0898	0.100	90	67-120	

Lab Batch #: 3093970 **Sample:** 628673-003 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 07/01/19 04:56

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0908	0.100	91	66-120	
4-Bromofluorobenzene	0.0844	0.100	84	67-120	

Lab Batch #: 3093970 **Sample:** 628673-003 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 07/01/19 05:20

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0949	0.100	95	66-120	
4-Bromofluorobenzene	0.0871	0.100	87	67-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Orders : 628714,

Project ID: 700376.045.04

Lab Batch #: 3094071 **Sample:** 7681141-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 00:32

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0837	0.100	84	66-120	
4-Bromofluorobenzene	0.0879	0.100	88	67-120	

Lab Batch #: 3094071 **Sample:** 7681141-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 00:58

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0842	0.100	84	66-120	
4-Bromofluorobenzene	0.0914	0.100	91	67-120	

Lab Batch #: 3094071 **Sample:** 7681141-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 02:19

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0920	0.100	92	66-120	
4-Bromofluorobenzene	0.0907	0.100	91	67-120	

Lab Batch #: 3094071 **Sample:** 628714-012 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 07/01/19 11:49

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.410	0.500	82	66-120	
4-Bromofluorobenzene	0.0908	0.100	91	67-120	

Lab Batch #: 3094071 **Sample:** 628714-012 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 07/01/19 12:15

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.403	0.500	81	66-120	
4-Bromofluorobenzene	0.0860	0.100	86	67-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Orders : 628714, **Project ID:** 700376.045.04

Lab Batch #: 3094176 **Sample:** 7681043-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 10:26

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	70-130	
4-Bromofluorobenzene	0.0308	0.0300	103	70-130	

Lab Batch #: 3094176 **Sample:** 7681043-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 10:49

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0322	0.0300	107	70-130	

Lab Batch #: 3094176 **Sample:** 628666-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 11:11

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0322	0.0300	107	70-130	

Lab Batch #: 3094176 **Sample:** 628666-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 11:33

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0359	0.0300	120	70-130	

Lab Batch #: 3094176 **Sample:** 7681043-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 07/01/19 12:21

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Order #: 628714 **Project ID:** 700376.045.04

Analyst: JHB **Date Prepared:** 06/30/2019 **Date Analyzed:** 07/01/2019

Lab Batch ID: 3094176 **Sample:** 7681043-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0910	91	0.100	0.0838	84	8	70-130	25	
Toluene	<0.000367	0.100	0.0893	89	0.100	0.0816	82	9	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0981	98	0.100	0.0904	90	8	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.198	99	0.200	0.183	92	8	70-130	25	
o-Xylene	<0.000642	0.100	0.0905	91	0.100	0.0860	86	5	70-130	25	

Analyst: MIT **Date Prepared:** 06/30/2019 **Date Analyzed:** 06/30/2019

Lab Batch ID: 3093953 **Sample:** 7681061-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.106	106	0.100	0.103	103	3	74-120	20	
Toluene	<0.000512	0.100	0.102	102	0.100	0.0992	99	3	74-120	20	
Ethylbenzene	<0.000616	0.100	0.103	103	0.100	0.101	101	2	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.205	103	0.200	0.201	101	2	73-120	25	
o-Xylene	<0.000270	0.100	0.101	101	0.100	0.0988	99	2	73-120	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Order #: 628714 **Project ID:** 700376.045.04

Analyst: MIT **Date Prepared:** 06/30/2019 **Date Analyzed:** 06/30/2019

Lab Batch ID: 3093970 **Sample:** 7681070-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.0970	97	0.100	0.0957	96	1	74-120	20	
Toluene	<0.000512	0.100	0.0925	93	0.100	0.0908	91	2	74-120	20	
Ethylbenzene	<0.000616	0.100	0.0985	99	0.100	0.0950	95	4	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.194	97	0.200	0.187	94	4	73-120	25	
o-Xylene	<0.000270	0.100	0.0965	97	0.100	0.0942	94	2	73-120	25	

Analyst: MIT **Date Prepared:** 06/30/2019 **Date Analyzed:** 07/01/2019

Lab Batch ID: 3094071 **Sample:** 7681141-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.0980	98	0.100	0.104	104	6	74-120	20	
Toluene	<0.000512	0.100	0.0942	94	0.100	0.0977	98	4	74-120	20	
Ethylbenzene	<0.000616	0.100	0.0955	96	0.100	0.0995	100	4	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.190	95	0.200	0.199	100	5	73-120	25	
o-Xylene	<0.000270	0.100	0.0954	95	0.100	0.0988	99	4	73-120	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Order # : 628714 **Project ID:** 700376.045.04

Lab Batch ID: 3093953 **QC- Sample ID:** 628714-003 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 06/30/2019 **Date Prepared:** 06/30/2019 **Analyst:** MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00600	0.100	0.107	101	0.100	0.106	100	1	15-147	25	
Toluene	<0.000512	0.100	0.0982	98	0.100	0.0971	97	1	11-147	25	
Ethylbenzene	<0.000616	0.100	0.0982	98	0.100	0.0984	98	0	10-149	25	
m_p-Xylenes	<0.000454	0.200	0.195	98	0.200	0.195	98	0	62-124	25	
o-Xylene	<0.000270	0.100	0.0960	96	0.100	0.0977	98	2	62-124	25	

Lab Batch ID: 3093970 **QC- Sample ID:** 628673-003 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 07/01/2019 **Date Prepared:** 06/30/2019 **Analyst:** MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.0953	95	0.100	0.0964	96	1	15-147	25	
Toluene	<0.000512	0.100	0.0908	91	0.100	0.0923	92	2	11-147	25	
Ethylbenzene	<0.000616	0.100	0.0940	94	0.100	0.0961	96	2	10-149	25	
m_p-Xylenes	0.000600	0.200	0.182	91	0.200	0.188	94	3	62-124	25	
o-Xylene	<0.000270	0.100	0.0914	91	0.100	0.0945	95	3	62-124	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Moore to Jal #2 (MTJ#2)

Work Order # : 628714 **Project ID:** 700376.045.04

Lab Batch ID: 3094071 **QC- Sample ID:** 628714-012 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 07/01/2019 **Date Prepared:** 06/30/2019 **Analyst:** MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.323	0.500	0.897	115	0.500	0.866	109	4	15-147	25	
Toluene	<0.00256	0.500	0.488	98	0.500	0.492	98	1	11-147	25	
Ethylbenzene	<0.00308	0.500	0.468	94	0.500	0.456	91	3	10-149	25	
m_p-Xylenes	0.00900	1.00	0.942	93	1.00	0.920	91	2	62-124	25	
o-Xylene	0.00600	0.500	0.465	92	0.500	0.459	91	1	62-124	25	

Lab Batch ID: 3094176 **QC- Sample ID:** 628666-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 07/01/2019 **Date Prepared:** 06/30/2019 **Analyst:** JHB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0895	90	0.100	0.0969	97	8	70-130	25	
Toluene	<0.000367	0.100	0.0885	89	0.100	0.0972	97	9	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0987	99	0.100	0.105	105	6	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.199	100	0.200	0.210	105	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0943	94	0.100	0.101	101	7	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 628714

www.xenco.com Page 1 of 2

Project Manager:	David Adkins	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	Talon	Company Name:	PIPE LINE
Address:	408 W. Texas Ave.	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	
Phone:	575-616-4022 or 575-746-8905	Email:	dadkins@talonlpe.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TOJAL #2 (MTJ#2)	Turn Around	
Project Number:	700374.045.04	Routine	☒
P.O. Number:	SRS # 2002-10273	Rush:	
Sampler's Name:	MICHAEL BULLER	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	(Yes) No N/A	Total Containers:	54	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX
MW-13	GW	6-19-19	11:50am	N/A	3	X
MW-4A			1:20pm			
MW-8			2:05pm			
MW-3A		6-19-19	3:25pm			
MW-12		6-20-19	9:25am			
MW-10			10:00am			
MW-6			10:25am			
MW-9			11:30am			
MW-19			12:25pm			
MW-18		6-20-19	1:20pm	N/A		

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Michael Buller		6/21/19 15:52	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 628714

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 2 of 2

Project Manager:	David Adkins	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	Talon	Company Name:	PIPELINE
Address:	408 W. Texas Ave.	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	
Phone:	575-616-4022 or 575-746-8905	Email:	dadkins@talonlpe.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TO JAL #2 (MTJ #2)	Turn Around	
Project Number:	700376.045.04	Routine ☐	
P.O. Number:	SRS # 2002-10273	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	(Yes) No N/A	Total Containers:	54

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	Work Order Notes / Sample Comments
MW-17	GW	6-20-19	3:10	N/A	3	X	EMAIL ANALYTICALS TO CAMILLE BRYANT
MW 7	GW	6-21-19	9:20 AM		3	X	
MW 11	GW	6-21-19	10:25 AM		3	X	
MW 22	GW	6-21-19	10:55 AM		3	X	
MW 23	GW	6-21-19	11:30 AM		3	X	
MW 21	GW	6-21-19	2:35 PM		3	X	
MW 20	GW	6-21-19	1:45 PM		3	X	
MW 5	GW	6-20-19	11:30 AM		3	X	

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/21/19 15:52	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Final 1.000

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Inter-Office Shipment

IOS Number **42127**

Date/Time: 06/28/19 14:25
Lab# From: **Carlsbad**
Lab# To: **Lubbock**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
628714-001	W	MW-13	06/19/19 11:50	SW8021B	BTEX by EPA 8021	06/27/19	07/03/19 11:50	JKR	BR4FBZ BZ BZME EBZ T	
628714-002	W	MW-4A	06/19/19 13:20	SW8021B	BTEX by EPA 8021	06/27/19	07/03/19 13:20	JKR	BR4FBZ BZ BZME EBZ T	
628714-003	W	MW-8	06/19/19 14:05	SW8021B	BTEX by EPA 8021	06/27/19	07/03/19 14:05	JKR	BR4FBZ BZ BZME EBZ T	
628714-004	W	MW-3A	06/19/19 15:25	SW8021B	BTEX by EPA 8021	06/27/19	07/03/19 15:25	JKR	BR4FBZ BZ BZME EBZ T	
628714-005	W	MW-12	06/20/19 09:25	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 09:25	JKR	BR4FBZ BZ BZME EBZ T	
628714-006	W	MW-10	06/20/19 10:00	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 10:00	JKR	BR4FBZ BZ BZME EBZ T	
628714-007	W	MW-6	06/20/19 10:25	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 10:25	JKR	BR4FBZ BZ BZME EBZ T	
628714-008	W	MW-9	06/20/19 11:30	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 11:30	JKR	BR4FBZ BZ BZME EBZ T	
628714-009	W	MW-19	06/20/19 12:25	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 12:25	JKR	BR4FBZ BZ BZME EBZ T	
628714-010	W	MW-18	06/20/19 13:20	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 13:20	JKR	BR4FBZ BZ BZME EBZ T	
628714-011	W	MW-17	06/20/19 15:10	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 15:10	JKR	BR4FBZ BZ BZME EBZ T	
628714-012	W	MW-7	06/21/19 09:20	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-013	W	MW 11	06/21/19 10:25	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-014	W	MW 22	06/21/19 10:55	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-015	W	MW 23	06/21/19 11:30	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-016	W	MW 21	06/21/19 14:35	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-017	W	MW-20	06/21/19 13:45	SW8021B	BTEX by EPA 8021	06/27/19	07/05/19	JKR	BR4FBZ BZ BZME EBZ T	
628714-018	W	MW-5	06/20/19 11:30	SW8021B	BTEX by EPA 8021	06/27/19	07/04/19 11:30	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: Jessica Kramer
Jessica Kramer

Date Relinquished: 06/28/2019

Received By: Brianna Teel
Brianna Teel

Date Received:

Cooler Temperature:

Final 1.000

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 42127

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

Sent By: Elizabeth McClellan **Date Sent:** 06/24/2019 02:25 PM

Received By: Brianna Teel **Date Received:** 06/25/2019 11:19 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 06/25/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 06.21.2019 03.52.00 PM

Work Order #: 628714

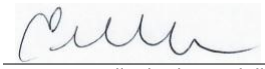
Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : TNM007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco Midland
#18 Water VOC samples have zero headspace?	**Yes**	

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

Analyst: PH Device/Lot#:

Checklist completed by:  Date: 06.21.2019

Elizabeth McClellan

Checklist reviewed by:  Date: 06.24.2019

Martha Castro

Analytical Report 636938

for

Talon LPE-Artesia

Project Manager: David Adkins

Moore to Jal 2

70037604504

20-SEP-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Table of Contents

20-SEP-19

Project Manager: **David Adkins**
Talon LPE-Artesia
408 West Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **636938**
Moore to Jal 2
Project Address:

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 636938. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 636938 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 636938

Talon LPE-Artesia, Artesia, NM

Moore to Jal 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW17	W	09-14-19 11:25		636938-001
MW18	W	09-14-19 10:25		636938-002
MW19	W	09-14-19 10:15		636938-003
MW21	W	09-15-19 13:55		636938-004
MW20	W	09-15-19 13:20		636938-005
MW10	W	09-14-19 12:07		636938-006
MW5	W	09-14-19 13:20		636938-007
MW9	W	09-15-19 09:40		636938-008
MW7	W	09-14-19 14:40		636938-009
MW3A	W	09-15-19 09:00		636938-010
MW8	W	09-14-19 15:15		636938-011
MW13	W	09-14-19 14:45		636938-012
MW4A	W	09-15-19 10:50		636938-013
MW6	W	09-15-19 11:20		636938-014
MW12	W	09-15-19 12:00		636938-015
MW11	W	09-15-19 12:40		636938-016
MW22	W	09-14-19 08:50		636938-017

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Moore to Jal 2

Project ID: *70037604504*
Work Order Number(s): *636938*

Report Date: *20-SEP-19*
Date Received: *09/16/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3101776 BTEX by EPA 8021
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 636938-008.

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id: **MW17** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-001 Date Collected: 09.14.19 11.25 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 09:11	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 09:11	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 09:11	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 09:11	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 09:11	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 09:11	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 09:11	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	114	70 - 130	%		

Sample Id: **MW18** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-002 Date Collected: 09.14.19 10.25 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 09:31	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 09:31	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 09:31	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 09:31	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 09:31	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 09:31	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 09:31	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	126	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id: **MW19** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-003 Date Collected: 09.14.19 10.15 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 09:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 09:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 09:52	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 09:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 09:52	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 09:52	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 09:52	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	121	70 - 130	%		

Sample Id: **MW21** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-004 Date Collected: 09.15.19 13.55 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 10:12	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 10:12	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 10:12	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 10:12	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 10:12	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 10:12	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 10:12	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id: **MW20** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-005 Date Collected: 09.15.19 13.20 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 10:32	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 10:32	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 10:32	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 10:32	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 10:32	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 10:32	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 10:32	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	119	70 - 130	%		

Sample Id: **MW10** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-006 Date Collected: 09.14.19 12.07 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 10:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 10:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 10:52	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 10:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 10:52	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 10:52	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 10:52	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		

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Sample Id: **MW5** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-007 Date Collected: 09.14.19 13.20 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00259**	0.00200	0.000408	mg/L	09.17.19 11:12		1
Toluene	108-88-3	**0.00384**	0.00200	0.000367	mg/L	09.17.19 11:12		1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 11:12	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 11:12	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 11:12	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 11:12	U	
Total BTEX		**0.00643**		0.000367	mg/L	09.17.19 11:12		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

Sample Id: **MW9** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-008 Date Collected: 09.15.19 09.40 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.478**	0.0400	0.00816	mg/L	09.18.19 03:59	D	20
Toluene	108-88-3	**0.0406**	0.00200	0.000367	mg/L	09.17.19 11:32		1
Ethylbenzene	100-41-4	**0.0513**	0.00200	0.000657	mg/L	09.17.19 11:32		1
m_p-Xylenes	179601-23-1	**0.127**	0.00400	0.000630	mg/L	09.17.19 11:32		1
o-Xylene	95-47-6	**0.0940**	0.00200	0.000642	mg/L	09.17.19 11:32		1
Xylenes, Total	1330-20-7	**0.221**		0.000630	mg/L	09.17.19 11:32		
Total BTEX		**0.791**		0.000367	mg/L	09.18.19 03:59		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	139	70 - 130	%		**

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Sample Id: **MW7** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-009 Date Collected: 09.14.19 14.40 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.335**	0.00200	0.000408	mg/L	09.17.19 11:52		1
Toluene	108-88-3	**0.0154**	0.00200	0.000367	mg/L	09.17.19 11:52		1
Ethylbenzene	100-41-4	**0.00755**	0.00200	0.000657	mg/L	09.17.19 11:52		1
m_p-Xylenes	179601-23-1	**0.00603**	0.00400	0.000630	mg/L	09.17.19 11:52		1
o-Xylene	95-47-6	**0.00417**	0.00200	0.000642	mg/L	09.17.19 11:52		1
Xylenes, Total	1330-20-7	**0.0102**		0.000630	mg/L	09.17.19 11:52		
Total BTEX		**0.368**		0.000367	mg/L	09.17.19 11:52		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	122	70 - 130	%		

Sample Id: **MW3A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-010 Date Collected: 09.15.19 09.00 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 12:12	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 12:12	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 12:12	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 12:12	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 12:12	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 12:12	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 12:12	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		

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Sample Id: **MW8** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-011 Date Collected: 09.14.19 15.15 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 01:31	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 01:31	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 01:31	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 01:31	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 01:31	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 01:31	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 01:31	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	113	70 - 130	%		

Sample Id: **MW13** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-012 Date Collected: 09.14.19 14.45 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 01:51	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 01:51	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 01:51	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 01:51	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 01:51	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 01:51	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 01:51	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	125	70 - 130	%		

Certificate of Analytical Results
636938
Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id: **MW4A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-013 Date Collected: 09.15.19 10.50 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 02:12	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 02:12	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 02:12	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 02:12	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 02:12	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 02:12	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 02:12	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	117	70 - 130	%		

Sample Id: **MW6** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-014 Date Collected: 09.15.19 11.20 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.173**	0.00200	0.000408	mg/L	09.18.19 02:32		1
Toluene	108-88-3	**0.0116**	0.00200	0.000367	mg/L	09.18.19 02:32		1
Ethylbenzene	100-41-4	**0.00404**	0.00200	0.000657	mg/L	09.18.19 02:32		1
m_p-Xylenes	179601-23-1	**0.0151**	0.00400	0.000630	mg/L	09.18.19 02:32		1
o-Xylene	95-47-6	**0.0223**	0.00200	0.000642	mg/L	09.18.19 02:32		1
Xylenes, Total	1330-20-7	**0.0374**		0.000630	mg/L	09.18.19 02:32		
Total BTEX		**0.226**		0.000367	mg/L	09.18.19 02:32		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	121	70 - 130	%		

Certificate of Analytical Results
636938
Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id: **MW12** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-015 Date Collected: 09.15.19 12.00 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 02:52	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 02:52	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 02:52	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 02:52	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 02:52	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 02:52	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 02:52	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

Sample Id: **MW11** Matrix: Ground Water Sample Depth:

Lab Sample Id: 636938-016 Date Collected: 09.15.19 12.40 Date Received: 09.16.19 08.00

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3101776 Date Prep: 09.17.19 11.00

Subcontractor: SUB: T104704400-18-16 Prep seq: 7686303

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 03:12	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 03:12	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 03:12	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 03:12	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 03:12	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 03:12	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 03:12	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	120	70 - 130	%		

Certificate of Analytical Results
636938
Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id:	**MW22**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	636938-017	Date Collected:	09.14.19 08.50	Date Received:	09.16.19 08.00
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3101776	Date Prep:	09.17.19 11.00		
Subcontractor:	SUB: T104704400-18-16	Prep seq:	7686303		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.18.19 03:32	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.18.19 03:32	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.18.19 03:32	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.18.19 03:32	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.18.19 03:32	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.18.19 03:32	U	
Total BTEX		<0.000367		0.000367	mg/L	09.18.19 03:32	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	123	70 - 130	%		

Certificate of Analytical Results
636938
Talon LPE-Artesia, Artesia, NM
Moore to Jal 2

Sample Id:	**7686303-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7686303-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3101776	Date Prep:	09.17.19 11.00		
Subcontractor:	SUB: T104704400-18-16	Prep seq:	7686303		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.17.19 08:51	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.17.19 08:51	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.17.19 08:51	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.17.19 08:51	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.17.19 08:51	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.17.19 08:51	U	
Total BTEX		<0.000367		0.000367	mg/L	09.17.19 08:51	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	113	70 - 130	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal 2

Work Orders : 636938, **Project ID:** 70037604504

Lab Batch #: 3101776 **Sample:** 7686303-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/17/19 07:11

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0361	0.0300	120	70-130	

Lab Batch #: 3101776 **Sample:** 7686303-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/17/19 07:31

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0363	0.0300	121	70-130	

Lab Batch #: 3101776 **Sample:** 636938-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 09/17/19 07:52

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0380	0.0300	127	70-130	

Lab Batch #: 3101776 **Sample:** 636938-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 09/17/19 08:12

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0372	0.0300	124	70-130	

Lab Batch #: 3101776 **Sample:** 7686303-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09/17/19 08:51

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Moore to Jal 2

Work Order #: 636938 **Project ID:** 70037604504

Analyst: KTL **Date Prepared:** 09/17/2019 **Date Analyzed:** 09/17/2019

Lab Batch ID: 3101776 **Sample:** 7686303-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0968	97	0.100	0.0952	95	2	70-130	25	
Toluene	<0.000367	0.100	0.0946	95	0.100	0.0933	93	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.110	110	0.100	0.110	110	0	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.225	113	0.200	0.225	113	0	70-130	25	
o-Xylene	<0.000642	0.100	0.110	110	0.100	0.112	112	2	70-130	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Moore to Jal 2

Work Order # : 636938 **Project ID:** 70037604504

Lab Batch ID: 3101776 **QC- Sample ID:** 636938-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 09/17/2019 **Date Prepared:** 09/17/2019 **Analyst:** KTL

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.105	105	0.100	0.100	100	5	70-130	25	
Toluene	<0.000367	0.100	0.101	101	0.100	0.100	100	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.121	121	0.100	0.118	118	3	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.250	125	0.200	0.242	121	3	70-130	25	
o-Xylene	<0.000642	0.100	0.121	121	0.100	0.118	118	3	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasibad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: U36938

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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS All AMERICAN
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 TEXAS ST.	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA N.M 88210	City, State ZIP:	
Phone:	575 441 4835	Email:	DADKINS@TALON LPE.COM

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TO JAL 2	Turn Around	
Project Number:	700376 045 04	Routine	☒
Project Location		Rush:	
Sampler's Name:	BILL RIGGS	Due Date:	
PO #:	~~SAS # 2102~~	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.0	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	(Yes) No N/A	Total Containers:	48

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX
	MW17	GW	9-14-19	11:25AM		3	
	MW18		9-14-19	10:50AM		3	
	MW19		9-14-19	10:15 AM		3	
	MW21		9-15-19	1:55 pm		3	
	MW20		9-15-19	1:20 pm		3	
	MW10		9-14-19	12:07 pm		3	
	~~MW~~ MW5		9-14-19	1:20 pm		3	
	MW9		9-15-19	9:40AM		3	
	MW7		9-14-19	2:10pm		3	
	MW3A	GW	9-15-19	9AM		3	

ANALYSIS REQUEST

Preservative Codes
MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments
EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Bill Riggs	Courtney	9/16/19 08:00	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Final 1.000

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Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com

Work Order No: 636938

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 TEXAS ST	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575 441 4835	Email:	DADKINS@TALONLPE

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TO JAL 2	Turn Around	
Project Number:	700376 045 04	Routine	☒
Project Location		Rush:	
Sampler's Name:	Bill Riggs	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT

Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):		Thermometer ID	
Received Intact:	Yes No	See Temp	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST: BTEX	Sample Comments
	MW8	GW	9-14-19	3:15 pm		3		X	EMAIL ANALYTICALS TO CAMILLE BRYANT
	MW13	↑	9-14-19	2:45 pm		3		X	
	MW4A		9-15-19	10:50AM		3		X	
	MW6		9 15 19	11:20AM		3		X	
	MW12		9-15-19	12pm		3		X	
	MW 11	↓	9-15-19	12:40pm		3		X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Bill Riggs	Courtney	9/16/19 08:00	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number **48032**

Date/Time: 09/16/19 12:19
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
636938-001	W	MW17	09/14/19 11:25	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-002	W	MW18	09/14/19 10:25	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-003	W	MW19	09/14/19 10:15	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-004	W	MW21	09/15/19 13:55	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-005	W	MW20	09/15/19 13:20	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-006	W	MW10	09/14/19 12:07	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-007	W	MW5	09/14/19 13:20	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-008	W	MW9	09/15/19 09:40	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-009	W	MW7	09/14/19 14:40	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-010	W	MW3A	09/15/19 09:00	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-011	W	MW8	09/14/19 15:15	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-012	W	MW13	09/14/19 14:45	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-013	W	MW4A	09/15/19 10:50	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-014	W	MW6	09/15/19 11:20	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-015	W	MW12	09/15/19 12:00	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-016	W	MW11	09/15/19 12:40	SW8021B	BTEX by EPA 8021	09/20/19	09/29/19	JKR	BR4FBZ BZ BZME EBZ T	
636938-017	W	MW22	09/14/19 08:50	SW8021B	BTEX by EPA 8021	09/20/19	09/28/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 09/16/2019

Received By: _____

Date Received: _____

Cooler Temperature: _____

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48032

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

Sent By: Elizabeth McClellan **Date Sent:** 09/16/2019 12:19 PM

Received By: **Date Received:**

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		
#2 *Shipping container in good condition?	___	
#3 *Samples received with appropriate temperature?	___	
#4 *Custody Seals intact on shipping container/ cooler?	___	
#5 *Custody Seals Signed and dated for Containers/coolers	___	
#6 *IOS present?	___	
#7 Any missing/extra samples?	___	
#8 IOS agrees with sample label(s)/matrix?	___	
#9 Sample matrix/ properties agree with IOS?	___	
#10 Samples in proper container/ bottle?	___	
#11 Samples properly preserved?	___	
#12 Sample container(s) intact?	___	
#13 Sufficient sample amount for indicated test(s)?	___	
#14 All samples received within hold time?	___	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

_____

Checklist reviewed by: Date: _____

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09/16/2019 08:00:00 AM

Work Order #: 636938

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 09/16/2019

Checklist reviewed by: Jessica Kramer Date: 09/17/2019

Analytical Report 647201

for

Talon LPE-Artesia

Project Manager: David Adkins

Moore to Jal #2 (MTJ #2)

700376.045.04

12.31.2019

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

12.31.2019

Project Manager: **David Adkins**
Talon LPE-Artesia
408 West Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **647201**
Moore to Jal #2 (MTJ #2)
Project Address: Lea County

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647201. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647201 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 647201

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-4A	W	12.17.2019 10:00		647201-001
MW-3A	W	12.17.2019 11:35		647201-002
MW-8	W	12.17.2019 12:15		647201-003
MW-7	W	12.17.2019 13:25		647201-004
MW-13	W	12.17.2019 14:15		647201-005
MW-12	W	12.17.2019 15:05		647201-006
MW-20	W	12.18.2019 09:50		647201-007
MW-21	W	12.18.2019 10:40		647201-008
MW-23	W	12.18.2019 11:25		647201-009
MW-22	W	12.18.2019 11:50		647201-010
MW-11	W	12.18.2019 12:55		647201-011
MW-10	W	12.18.2019 13:50		647201-012
MW-19	W	12.19.2019 09:15		647201-013
MW-18	W	12.19.2019 10:05		647201-014
MW-17	W	12.19.2019 10:50		647201-015
MW-6	W	12.19.2019 11:55		647201-016
MW-5	W	12.19.2019 12:45		647201-017
MW-9	W	12.19.2019 11:35		647201-018

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Moore to Jal #2 (MTJ #2)

Project ID:	*700376.045.04*	Report Date:	*12.31.2019*
Work Order Number(s):	*647201*	Date Received:	*12.19.2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
647201

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-4A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-001 Date Collected: 12.17.2019 10:00 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 18:39	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 18:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 18:39	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 18:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 18:39	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 18:39	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 18:39	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	89	70 - 130	%		

Sample Id: **MW-3A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-002 Date Collected: 12.17.2019 11:35 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 19:00	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 19:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 19:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 19:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 19:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 19:00	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 19:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	86	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ #2)

Sample Id: **MW-8** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-003 Date Collected: 12.17.2019 12:15 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 19:20	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 19:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 19:20	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 19:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 19:20	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 19:20	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 19:20	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	89	70 - 130	%		

Sample Id: **MW-7** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-004 Date Collected: 12.17.2019 13:25 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 19:40	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 19:40	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 19:40	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 19:40	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 19:40	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 19:40	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 19:40	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	89	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-13** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-005 Date Collected: 12.17.2019 14:15 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 20:00	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 20:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 20:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 20:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 20:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 20:00	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 20:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	88	70 - 130	%		

Sample Id: **MW-12** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-006 Date Collected: 12.17.2019 15:05 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 20:20	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 20:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 20:20	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 20:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 20:20	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 20:20	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 20:20	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-20** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-007 Date Collected: 12.18.2019 09:50 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 20:40	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 20:40	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 20:40	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 20:40	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 20:40	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 20:40	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 20:40	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

Sample Id: **MW-21** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-008 Date Collected: 12.18.2019 10:40 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 21:00	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 21:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 21:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 21:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 21:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 21:00	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 21:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	90	70 - 130	%		

Certificate of Analytical Results
647201

Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-23** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-009 Date Collected: 12.18.2019 11:25 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 21:21	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 21:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 21:21	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 21:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 21:21	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 21:21	U	
Total BTEX		<0.000367		0.000367	mg/L	12.29.2019 21:21	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

Sample Id: **MW-22** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-010 Date Collected: 12.18.2019 11:50 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00155**	0.00200	0.000408	mg/L	12.29.2019 21:41	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 21:41	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 21:41	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 21:41	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 21:41	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 21:41	U	
Total BTEX		**0.00155**		0.000367	mg/L	12.29.2019 21:41	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	109	70 - 130	%		
4-Bromofluorobenzene	90	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-11** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-011 Date Collected: 12.18.2019 12:55 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00105**	0.00200	0.000408	mg/L	12.29.2019 23:00	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 23:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 23:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 23:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 23:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 23:00	U	
Total BTEX		**0.00105**		0.000367	mg/L	12.29.2019 23:00	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	78	70 - 130	%		

Sample Id: **MW-10** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-012 Date Collected: 12.18.2019 13:50 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000780**	0.00200	0.000408	mg/L	12.29.2019 23:20	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 23:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 23:20	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 23:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 23:20	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 23:20	U	
Total BTEX		**0.000780**		0.000367	mg/L	12.29.2019 23:20	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	85	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Moore to Jal #2 (MTJ #2)

Sample Id: **MW-19** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-013 Date Collected: 12.19.2019 09:15 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000990**	0.00200	0.000408	mg/L	12.29.2019 23:40	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 23:40	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 23:40	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 23:40	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 23:40	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.29.2019 23:40	U	
Total BTEX		**0.000990**		0.000367	mg/L	12.29.2019 23:40	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	102	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

Sample Id: **MW-18** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-014 Date Collected: 12.19.2019 10:05 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000880**	0.00200	0.000408	mg/L	12.30.2019 00:00	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.30.2019 00:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.30.2019 00:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.30.2019 00:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.30.2019 00:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.30.2019 00:00	U	
Total BTEX		**0.000880**		0.000367	mg/L	12.30.2019 00:00	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-17** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-015 Date Collected: 12.19.2019 10:50 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000740**	0.00200	0.000408	mg/L	12.30.2019 00:20	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.30.2019 00:20	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.30.2019 00:20	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.30.2019 00:20	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.30.2019 00:20	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.30.2019 00:20	U	
Total BTEX		**0.000740**		0.000367	mg/L	12.30.2019 00:20	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	85	70 - 130	%		

Sample Id: **MW-6** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-016 Date Collected: 12.19.2019 11:55 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.119**	0.00200	0.000408	mg/L	12.30.2019 00:40		1
Toluene	108-88-3	**0.000670**	0.00200	0.000367	mg/L	12.30.2019 00:40	J	1
Ethylbenzene	100-41-4	**0.00226**	0.00200	0.000657	mg/L	12.30.2019 00:40		1
m_p-Xylenes	179601-23-1	**0.00239**	0.00400	0.000630	mg/L	12.30.2019 00:40	J	1
o-Xylene	95-47-6	**0.00307**	0.00200	0.000642	mg/L	12.30.2019 00:40		1
Xylenes, Total	1330-20-7	**0.00546**		0.000630	mg/L	12.30.2019 00:40		
Total BTEX		**0.127**		0.000367	mg/L	12.30.2019 00:40		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	111	70 - 130	%		
4-Bromofluorobenzene	85	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id: **MW-5** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-017 Date Collected: 12.19.2019 12:45 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00391**	0.00200	0.000408	mg/L	12.30.2019 01:00		1
Toluene	108-88-3	**0.00110**	0.00200	0.000367	mg/L	12.30.2019 01:00	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.30.2019 01:00	U	1
m_p-Xylenes	179601-23-1	**0.000690**	0.00400	0.000630	mg/L	12.30.2019 01:00	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.30.2019 01:00	U	1
Xylenes, Total	1330-20-7	**0.000690**		0.000630	mg/L	12.30.2019 01:00	J	
Total BTEX		**0.00570**		0.000367	mg/L	12.30.2019 01:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	107	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

Sample Id: **MW-9** Matrix: Ground Water Sample Depth:

Lab Sample Id: 647201-018 Date Collected: 12.19.2019 11:35 Date Received: 12.19.2019 15:44

Analytical Method: BTEX by EPA 8021 Prep Method: 5030B

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3111952 Date Prep: 12.27.2019 13:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7693385

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.224**	0.00200	0.000408	mg/L	12.30.2019 01:20		1
Toluene	108-88-3	**0.00580**	0.00200	0.000367	mg/L	12.30.2019 01:20		1
Ethylbenzene	100-41-4	**0.0616**	0.00200	0.000657	mg/L	12.30.2019 01:20		1
m_p-Xylenes	179601-23-1	**0.0889**	0.00400	0.000630	mg/L	12.30.2019 01:20		1
o-Xylene	95-47-6	**0.0495**	0.00200	0.000642	mg/L	12.30.2019 01:20		1
Xylenes, Total	1330-20-7	**0.138**		0.000630	mg/L	12.30.2019 01:20		
Total BTEX		**0.430**		0.000367	mg/L	12.30.2019 01:20		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	115	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

Certificate of Analytical Results
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Talon LPE-Artesia, Artesia, NM

Moore to Jal #2 (MTJ #2)

Sample Id:	**7693385-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7693385-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3111952	Date Prep:	12.27.2019 13:15		
Subcontractor:	SUB: T104704400-19-19	Prep seq:	7693385		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.29.2019 18:19	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.29.2019 18:19	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.29.2019 18:19	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.29.2019 18:19	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.29.2019 18:19	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	81	70 - 130	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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

Form 2 - Surrogate Recoveries

Project Name: Moore to Jal #2 (MTJ #2)

Work Orders : 647201 **Project ID:** 700376.045.04

Lab Batch #: 3111952 **Sample:** 7693385-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.29.2019 16:20 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	70-130	
4-Bromofluorobenzene	0.0254	0.0300	85	70-130	

Lab Batch #: 3111952 **Sample:** 7693385-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.29.2019 16:40 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3111952 **Sample:** 647201-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.29.2019 17:01 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0270	0.0300	90	70-130	

Lab Batch #: 3111952 **Sample:** 647201-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.29.2019 17:21 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0281	0.0300	94	70-130	

Lab Batch #: 3111952 **Sample:** 7693385-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.29.2019 18:19 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	70-130	
4-Bromofluorobenzene	0.0243	0.0300	81	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Moore to Jal #2 (MTJ #2)

Work Order #: 647201 **Project ID:** 700376.045.04

Analyst: KTL **Date Prepared:** 12.27.2019 **Date Analyzed:** 12.29.2019

Lab Batch ID: 3111952 **Sample:** 7693385-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0916	92	0.100	0.0882	88	4	70-130	25	
Toluene	<0.000367	0.100	0.0878	88	0.100	0.0896	90	2	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0907	91	0.100	0.0943	94	4	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.185	93	0.200	0.195	98	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0929	93	0.100	0.0992	99	7	70-130	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Moore to Jal #2 (MTJ #2)

Work Order # : 647201 **Project ID:** 700376.045.04

Lab Batch ID: 3111952 **QC- Sample ID:** 647201-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 12.29.2019 **Date Prepared:** 12.27.2019 **Analyst:** KTL

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0858	86	0.100	0.0811	81	6	70-130	25	
Toluene	<0.000367	0.100	0.0784	78	0.100	0.0760	76	3	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0746	75	0.100	0.0731	73	2	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.152	76	0.200	0.149	75	2	70-130	25	
o-Xylene	<0.000642	0.100	0.0792	79	0.100	0.0780	78	2	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200*|(C-F) / (C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A) / E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 647201

www.xenco.com Page 1 of 2

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON	Company Name:	PIPELINE
Address:	408 W. TEXAS AVE.	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	dadkins@taloneps.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TO JAL #2 (MTJ#2)	Turn Around	
Project Number:	700376.045.04	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2002-10273	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.2	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.7
Sample Custody Seals:	Yes (No) N/A	Total Containers:	54

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX
	MW-4A	GW	12-17-19	10:00am	N/A	3	✓
	MW-3A			11:35am			
	MW-8			12:15pm			
	MW-7			1:25pm			
	MW-13			2:15pm			
	MW-12		12-17-19	3:05pm			
	MW-20		12-18-19	9:50am			
	MW-21			10:40am			
	MW-23			11:25am			
	MW-22	GW	12-18-19	11:50am	N/A	3	✓

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/19/19 15:44	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Final 1.000

Chain of Custody

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Work Order No: 647201

www.xenco.com Page 2 of 2

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON	Company Name:	PIPELINE
Address:	408 W. TEXAS AVE.	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	dadkins@talonlpe.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	MOORE TO JAL #2 (MTJ #2)	Turn Around	
Project Number:	700376.045.04	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2002-10273	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):		Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX
	MW-11	GW	12-18-19	12:55pm	N/A	3		✓
	MW-10		12-18-19	1:50pm				
	MW-19		12-19-19	9:15am				
	MW-18			10:05am				
	MW-17			10:50am				
	MW-6			11:55am				
	MW-5			12:45pm				
	MW-9	GW	12-19-19	1:35pm	N/A	3		✓

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Michael Collier		12/19/19 15:44	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Final 1.000

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Inter-Office Shipment

IOS Number **54850**

Date/Time: 12/20/19 11:47
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 777316276660

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
647201-001	W	MW-4A	12/17/19 10:00	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-002	W	MW-3A	12/17/19 11:35	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-003	W	MW-8	12/17/19 12:15	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-004	W	MW-7	12/17/19 13:25	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-005	W	MW-13	12/17/19 14:15	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-006	W	MW-12	12/17/19 15:05	SW8021B	BTEX by EPA 8021	12/26/19	12/31/19	JKR	BR4FBZ BZ BZME EBZ T	
647201-007	W	MW-20	12/18/19 09:50	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-008	W	MW-21	12/18/19 10:40	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-009	W	MW-23	12/18/19 11:25	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-010	W	MW-22	12/18/19 11:50	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-011	W	MW-11	12/18/19 12:55	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-012	W	MW-10	12/18/19 13:50	SW8021B	BTEX by EPA 8021	12/26/19	01/01/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-013	W	MW-19	12/19/19 09:15	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-014	W	MW-18	12/19/19 10:05	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-015	W	MW-17	12/19/19 10:50	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-016	W	MW-6	12/19/19 11:55	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-017	W	MW-5	12/19/19 12:45	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	
647201-018	W	MW-9	12/19/19 11:35	SW8021B	BTEX by EPA 8021	12/26/19	01/02/20	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 12/20/2019

Received By: 
Brianna Teel

Date Received: 12/23/2019 07:23

Cooler Temperature: 0.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 54850

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

Sent By: Elizabeth McClellan **Date Sent:** 12/20/2019 11:47 AM

Received By: Brianna Teel **Date Received:** 12/23/2019 07:23 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 12/23/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 12.19.2019 03.44.00 PM

Work Order #: 647201

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	One vial from the set of three submitted for sample 007 was broken upon delivery.
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland.
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 12.20.2019

Checklist reviewed by: Jessica Kramer Date: 12.20.2019