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TALON LPE

2019 ANNUAL GROUNDWATER MONITORING REPORT

C.S. CAYLOR
LEA COUNTY, NEW MEXICO
SRS #2002—10250
NMOCD REF. # AP-052

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

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January 29, 2019

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TALON/LPE PROJECT NO. 700376.049.04

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NMOCD - New Mexico Oil Conservation Division

TABLE OF CONTENTS

APPENDICES

Appendix A Figures

Appendix B Tables and Charts

Appendix C Laboratory Analytical Data Reports and Chain of Custody Documentation

1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The C.S. Caylor Site (site) is located approximately seven (7) miles southeast of Lovington in Unit Letter B, Section 6, Township 17 South and Range 37 East in Lea County, New Mexico, on property owned by Robert C. Rice. There are no residences, groundwater supply wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from an EOTT Energy (EOTT) steel pipeline on September 19, 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 70 barrels (bbls) of crude oil were released. During site reconnaissance, it was observed that the ground surface beyond the current spill area had apparently been impacted by a prior spill or spills; however, the source(s) and date(s) of the spill(s) are unknown. Based on available information, no crude oil was initially recovered at the release site.

The site is situated in a physiogeographic area that is on the extreme south-western portion of the Southern High Plains, as it grades into the Edwards Plateau to the south and southeast and the Chihuahuan Desert of the Trans-Pecos Region to the southwest.

The topography proximal to the site is typical of the Southern High Plains, essentially flat with shallow depressions, or playa lakes, dotting the landscape. The prominent surface features on the Southern High Plains are the approximately 19,250 ephemeral playa lakes; however the density of the playa lakes diminishes toward the southern extent of the Southern High Plains. During periods of rainfall, the playas accumulate sheet runoff from watershed areas ranging in size from less than one square mile to several square miles. Only a small portion of drainage from rainfall occurs by streams. Playa lakes that collect storm water runoff can act as a recharge mechanism for groundwater.

The average elevation of the site area is approximately 3,810-feet above mean sea level with a slight slope to the southeast. The regional slope of the land surface in the Southern High Plains is approximately 100 feet per mile in a southeasterly direction.

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 Environmental Plus, Inc. (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 calcification 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 Epoch.

1.3 Previous Environmental Investigations

A total of 39 groundwater monitor wells (21 original monitor wells and 18 replacement wells) have been installed 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 October 2002 and was subsequently plugged in September 2008 due to the well being dry. Groundwater monitor wells MW-2 through MW-5 were installed from May to June 2004, and MW-6 through MW-10 were installed in October 2004. Groundwater monitor wells MW-11 through MW-17 were installed in February 2006, and MW-18 was installed in March 2008. Replacement monitor well MW-1A was installed in September 2008.

During 2011, four (4) replacement monitor wells were drilled at the site (MW-2A, MW-7A, MW-8A, and MW-12A). Groundwater levels at the site have declined an average of 13.5 feet since groundwater measurements were first obtained in 2002. Groundwater had not been detected in monitor well MW-7 since the gauging event on September 21, 2010, or in monitor well MW-8 since the gauging event on June 10, 2009; therefore, monitor wells MW-7 and MW-8 were plugged, and replacement monitor wells MW-7A and MW-8A were installed on April 19 - 20, 2011.

During the gauging event on March 23, 2011, the total depth (TD) of monitor well MW-2 was 88 feet below top of casing (btoc), it contained approximately five (5) feet of phase-separated hydrocarbons (PSH), and groundwater was not detected. The TD of monitor well MW-12 was 90 feet btoc. Gauging indicated approximately five (5) feet of PSH, and groundwater at TD. Since the fluid column of the wells was inadequate to install pumps, replacement monitor wells MW-2A and MW-12A were drilled on April 28, 2011. MW-2 and MW-12 were not plugged.

During 2012, four (4) replacement monitor wells were drilled at the site (MW-9A, MW-10A, MW-13A, and MW-14A) due to declining groundwater levels. The previously existing wells (MW-9, MW-10, MW-13, and MW-14) were plugged.

During 2013, five (5) replacement monitor wells were drilled at the site (MW-3A, MW-4A, MW-6A, MW-11A, and MW-18A) due to declining groundwater levels. The previously existing wells (MW-3, MW-4, MW-6, MW-11, and MW-18) were plugged.

During 2016, four (4) replacement monitor wells (MW-5A, MW-15A, MW-16A, and MW-17A) were drilled. Three (3) additional wells (MW-19, MW-20, and MW-21) were also drilled due to declining groundwater levels, to aid in PSH recovery, and to delineate the dissolved phase plume. The groundwater monitoring wells MW-2, MW-5, MW-12, MW-15, MW-16, and MW-17 were plugged.

PSH recovery operations have been performed at the site since September 2002. A summary of the historical groundwater and PSH gauging is provided in Table 1. Approximately 2337.71 bbls of crude oil have been recovered from the site as of December, 31, 2019. Approximately 350.11 bbls of crude were recovered in 2019.

Twelve (12) MDPE events were conducted on January 2019, February 2019, March 2019, April 2019, May 2019, June 2019, July 2019, August 2019, September 2019, October 2019, November 2019, and December 2019. A total of 282.65 barrels of PSH were recovered during the past 4 quarters consisting of 205.08 bbls of liquid PSH and 77.57 bbls of vapor.

During 2019, the groundwater recovery system extracted approximately 67.46 bbls of PSH and 4,820 bbls of groundwater.

1.4 Regulatory Framework

Groundwater analytical data collected from this site was 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

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 in order to 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 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

Talon conducted four (4) groundwater monitoring events at the site during the year 2019. The events occurred on March 21, June 13, September 18, and December 8, 2019.

During the March 2019 groundwater monitoring event, all recovery/monitor wells were gauged. Fourteen (14) monitor wells (MW-6A, MW-8A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, and MW-19) were not sampled due to the presence of PSH. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the June 2019 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-10A, MW-12A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-1A, MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, and MW-19) were not sampled due to the presence of PSH. MW-11A was not sampled because the well was purged dry and did not recover. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the September 2019 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. MW-1A was not sampled due to the well being dry. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the December 2019 groundwater monitoring event, all recovery/monitor wells were gauged. Thirteen (13) monitor wells (MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21) were purged and sampled. Seven (7) monitor wells (MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, MW-12A, and MW-19) were not sampled due to the presence of PSH. MW-1A was not sampled due to the well being dry. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

2.2 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all accessible monitor wells were measured with an oil/water interface probe to determine static water levels and to determine the thickness of PSH accumulation, if present. The data collected from the measurements was used to construct groundwater gradient maps and PSH thickness maps. The gauging results collected during the four (4) events are incorporated in Table 1, Appendix B – Summary of Historical Fluid Level Measurements.

Subsequent to gauging, all monitor wells that were not impacted with PSH 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 deposited into the onsite recovery tank, and subsequently transferred to the Apollo SWD.

Groundwater samples were collected from all monitor wells not impacted with PSH using dedicated disposable polyethylene bailers. The groundwater samples were contained in appropriately preserved, laboratory supplied sample vials. The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to Xenco Laboratories, Inc. Laboratory in Midland, Texas for testing. The groundwater samples collected during the all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. Groundwater samples collected from MW-9A, MW-15A, MW-16A, MW-17A, MW-18A, and MW-20 in March 2019 were also analyzed for polycyclic aromatic hydrocarbons (PAH) by EPA method 8270.

2.3 Phase Separated Hydrocarbon Recovery

PSH recovery methods have been employed at the site since 2002, initially by hand bailing, followed in March of 2003 with a portable gasoline powered eductor recovery system.

In November 2007, an automated skimmer recovery system was installed at the site. The skimmer assembly consists of bladder pumps combined with 24” traveling float specific gravity skimmer attachments. In July of 2009, a pneumatic total fluids pump was added to monitor well MW-1A, and in January of 2010, two (2) pneumatic total fluids pumps were added to monitor wells MW-2 and MW-3.

Currently there are six (6) total fluid pumps operating in monitoring wells MW-2A, MW-3A, MW-4A, MW-5A, MW-7A, and MW-19. The PSH and recovered groundwater is pumped into a frac tank on site. As the tank level fills a high-level head pressure switch activates a fluid transfer pump. When the pump is engaged the recovered fluids are transferred to a 4-inch HDPE line that is shared with the recovered fluids from Moore to Jal#1 and Moore to Jal #2 groundwater recovery systems. A 5-HP transfer pump then drives the fluids to the Apollo Salt Water Disposal (SWD) system for disposal.

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

- 1st Quarter – 20.16 bbls crude oil and 726 bbls of groundwater
- 2nd Quarter – 19.2 bbls crude oil and 1,008 bbls of groundwater
- 3rd Quarter – 17.4 bbls crude oil and 2,221 bbls of groundwater
- 4th Quarter – 10.7 bbls of crude oil and 865 bbls of groundwater

In addition to the recovery system, twelve (12) dual phase extraction (MDPE) events, in which liquid and vapor PSH were recovered, was conducted on site in 2019. The MDPE event recovery totals are as follows:

- January 15, 2019 – 8.85 bbls vapor, 3.33 bbls liquid
- February 12, 2019 – 6.76 bbls vapor, 30.95 bbls liquid
- March 12, 2019 – 9.58 bbls vapor, 34.67 bbls liquid
- April 17, 2019 – 6.90 bbls vapor, 42.7 bbls liquid
- May 15, 2019 – 7.57 bbls vapor, 6.72 bbls liquid
- June 6, 2019 – 6.98 bbls vapor, 6.65 bbls liquid
- July 24, 2019 – 3.33 bbls vapor, 25.32 bbls liquid
- August 15, 2019 – 10.78 bbls vapor, 12.08 bbls liquid
- September 10, 2019 – 2.98 bbls vapor, 4.26 bbls liquid
- October 23, 2019 – 5.54 bbls vapor, 7.2 bbls liquid
- November 6, 2019 – 6.1 bbls vapor, 24.3 bbls liquid
- December 18, 2019 – 2.2 bbls vapor, 6.9 bbls liquid

A total of approximately 350.11 bbls of crude oil were recovered in 2019 and an estimated 2,337.71 bbls of PSH have been recovered at the subject site to date.

3 GROUNDWATER MONITORING RESULTS

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Data in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C. The following sections summarize the results of the four (4) groundwater monitoring events at the site.

3.1 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 the 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, encompassing all or part of 31 counties in Texas and six (6) counties in New Mexico.

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 Ogallala Aquifer is generally unconfined, and the poteniometric surface mimics the topography with the regional flow direction from the northwest to the southeast. The mean regional gradient is 15 feet per mile, and the typical groundwater velocity averages seven (7) inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically ranged from 80 to 97 feet below ground surface, and the groundwater flow direction is to the southeast at an average of five (5) feet per mile. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet. The variable thickness is due to the irregularly eroded Triassic surface that underlies it.

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.

3.2 Groundwater Gradient and Flow Direction

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

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.

The potentiometric surface maps constructed for each of the four (4) groundwater monitoring events indicate that the groundwater flow direction is to southeast at an average gradient of 0.0012 feet/foot. Groundwater levels at the subject site have decreased approximately 0.71 feet for the year 2019.

3.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thickness of PSH during the four (4) groundwater monitoring events. The following summarizes the status of the PSH thicknesses observed during the four (4) groundwater monitoring events conducted in 2019.

- During the March 2019 event, PSH was observed in seven (7) monitor wells: MW-1A through MW-5A, MW-7A, and MW-19. PSH thickness ranged from 0.33 feet to 8.12 feet.
- During the June 2019 event, PSH was observed in seven (7) monitor wells: MW-1A, through MW-5A, MW-7A, and MW-19. PSH thickness ranged from 0.01 feet to 6.85 feet.
- During the September 2019 event, PSH was observed in seven (7) monitor wells: MW-2A through MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 0.04 feet to 5.86 feet.
- During the December 2019 event, PSH was observed in seven (7) monitor wells: MW-2A through MW-5A, MW-7A, MW-12A, and MW-19. PSH thickness ranged from 0.35 feet to 6.46 feet.

3.4 Groundwater Analytical Results

During the March 2019 event, groundwater samples were collected from fourteen (14) monitor wells: MW-6A, MW-8A through MW-18A, MW-20, and MW-21. Groundwater samples were not collected from seven (7) monitor wells, due to the presence of PSH (MW-1A through MW-5A, MW-7A, and MW-19). Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory method detection limit (MDL) in monitor well MW-10A and MW-21 to 23.5 mg/L in MW-12A. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-6A, MW-8A, MW-9A, MW-11A through MW-18A, and MW-20.
- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-9A, MW-10A, MW-20, and MW-21 to 0.106 mg/L in MW-12A. 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 monitor wells MW-9A, MW-10A, and MW-21 to 1.22 mg/L in MW-12A. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12A.

- Xylene concentrations ranged from less than the laboratory MDL in monitor wells MW-9A, MW-10A and MW-21 to 1.09 mg/L in MW-12A. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-12A.

- Naphthalene concentrations ranged from less than the laboratory MDL in MW-9A and MW-20 to 0.000308 mg/L in MW-18A. Naphthalene concentrations did not exceed the NMWQCC groundwater standard of 0.030 mg/L.

- Benzo (a) pyrene concentrations were less than the laboratory MDL in all wells MW-9A, MW-15A through MW-18A, and MW-20. Benzo (a) pyrene concentrations did not exceed the NMWQCC groundwater standard of 0.007 mg/L.

- PAH constituents were not detected in MW-17A and MW-20A for the past two consecutive years. Therefore, these wells will be dropped from future PAH sampling events.

During the June 2019 event, groundwater samples were collected from thirteen (13) monitor wells: MW-6A, MW-8A through MW-10A, MW-12A through MW-18A, MW-20, and MW-21. Groundwater samples were not collected from seven (7) monitor wells due to the presence of PSH (MW-1A through MW-5A, MW-7A, and MW-19). MW-11A was not sampled 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 monitor wells MW-10A, MW-13A, MW-16A through MW-18A, and MW-21 to 19.2 mg/L in MW-12A. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-8A, MW-9A, MW-12A, MW-14A, and MW-20.

- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-9A, MW-10A, MW-13A, MW-15A, MW-16A, MW-18A, and MW-21 to 0.115 mg/L in MW-12A. 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 monitor wells MW-6A, MW-8A, MW-10A, MW-13A, MW-15A through MW-18A, and MW-21 to 0.815 mg/L in MW-12A. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12A.

- Xylene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-9A, MW-10A, MW-13A through MW18A, MW-20, and MW-21 to 0.715 mg/L in MW-12A. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-12A.

During the September 2019 event, groundwater samples were collected from thirteen (13) monitor wells: MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Groundwater samples were not collected from seven (7) monitor wells due to the presence of PSH (MW-2A through MW-5A, MW-7A, MW-12A, and MW-19). MW-1A was not sampled due to the well being dry. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in monitor wells MW-10A, MW-11A, MW-13A through MW-18A, and MW-21 to 0.353 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-8A, MW-9A, and MW-20.
- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-9A through MW-11A, MW-13A through MW-18A, and MW-21 to 0.00919 in MW-8A. 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 monitor wells MW-6A, MW-8A, MW-10A, MW-11A, MW-13A through MW-18A, and MW-21 to 0.0283 mg/L in MW-20. 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 monitor wells MW-6A, MW-9A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21 to 0.00491 mg/L in MW-8A. 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 thirteen (13) monitor wells: MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Groundwater samples were not collected from seven (7) monitor wells, due to the presence of PSH (MW-2A through MW-5A, MW-7A, MW-12A, and MW-19). MW-1A was not sampled due to the well being dry. Laboratory analytical results of the groundwater samples indicate the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in monitor wells MW-11A, MW-13A, and MW-14A to 0.102 mg/L in MW-20. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well MW-20.

- Toluene concentrations ranged from less than the laboratory MDL in monitor wells MW-6A, MW-10A, MW-11A, MW-13A, MW-14A, and MW-16A to 0.000650 mg/L in MW-20. 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 were less than the laboratory MDL in all sampled monitor wells MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. 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 were less than the laboratory MDL in all sampled monitor wells MW-6A, MW-8A through MW-11A, MW-13A through MW-18A, MW-20, and MW-21. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the monitor wells sampled during the quarter.

The laboratory analytical results are summarized in Table 2. Summary of Historical Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C.

It is noted that groundwater monitoring well MW-21 was inadvertently installed in a legacy drilling pit. Therefore, MW-21 will be removed from future sampling events as analytical results may not be indicative of the subject Plains release.

Newly installed monitor wells are monitored for PAH at least (2) consecutive years after regulated PAH constituents are below NMQCC standards. Similarly, monitor wells that formerly contained PSH, follow the same regimen. PAH samples were collected from monitor wells MW-9A, MW-15A, MW-16A, MW-17A, MW-18A, and MW-20 in March 2019. The results of the PAH analyses are summarized in Table 3 – Summary of Historical Groundwater Analytical Results, in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the C. S. Caylor site and Section 4.2 provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction is to the southeast at an average gradient of 0.0012 ft/ft.
- Generally, PSH thickness fluctuated to some degree in all impacted monitor wells. PSH thickness has decreased in MW-2A from 8.12' to 6.46'.
- The PSH recovery system and MDPE removed a cumulative total of 350.11 bbls of crude oil from the site during 2019.
- Groundwater monitoring well MW-21 was inadvertently installed in a legacy drilling pit. Therefore, MW-21 will be removed from future sampling events as analytical results may not be indicative of the subject Plains release.

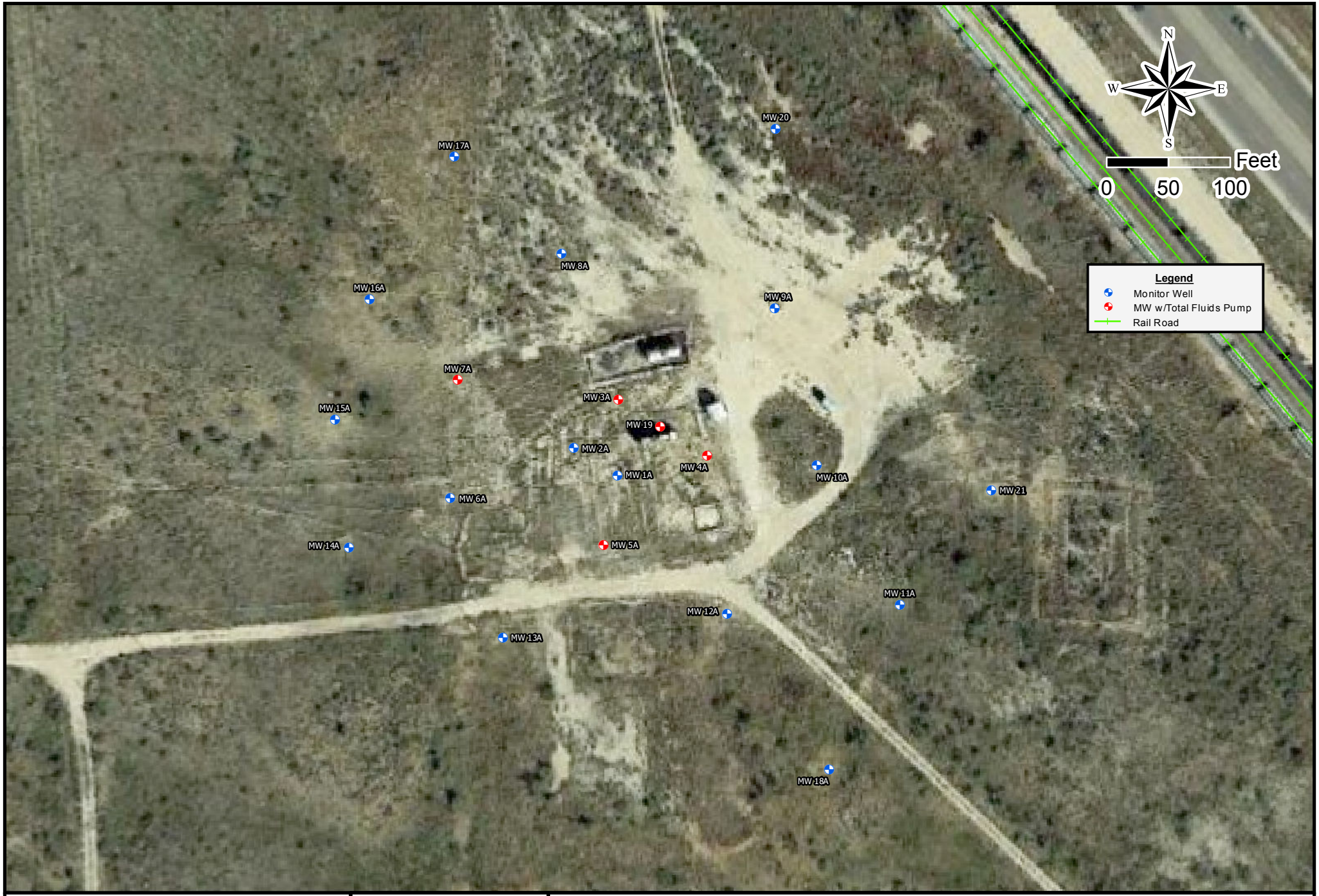
4.2 Recommendations

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

- Continue the use of MDPE events at this location to maximize PSH recovery.
- Continue quarterly groundwater monitoring events in accordance with NMOCD.
- Continue to sample PAH during the first quarter of 2020.
- Remove MW-21 from future sampling events as it was inadvertently installed in a legacy drilling pit. The results may not be representative of the subject Plains release.

APPENDIX A

Figures



TALON LPE

Drafted: 10/5/2018
1 in = 100 ft
Drafted By: IJM

C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 1 - Site Plan

TALON LPE	Date: 3/16/2020 1 in = 100 ft Drafted By: JAI	C.S. Caylor SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382) Lea County, New Mexico Figure 2a - Groundwater Gradient Map (03/21/2019)

TALON LPE

Date: 7/12/2019
1 in = 100 ft
Drafted By: IJM

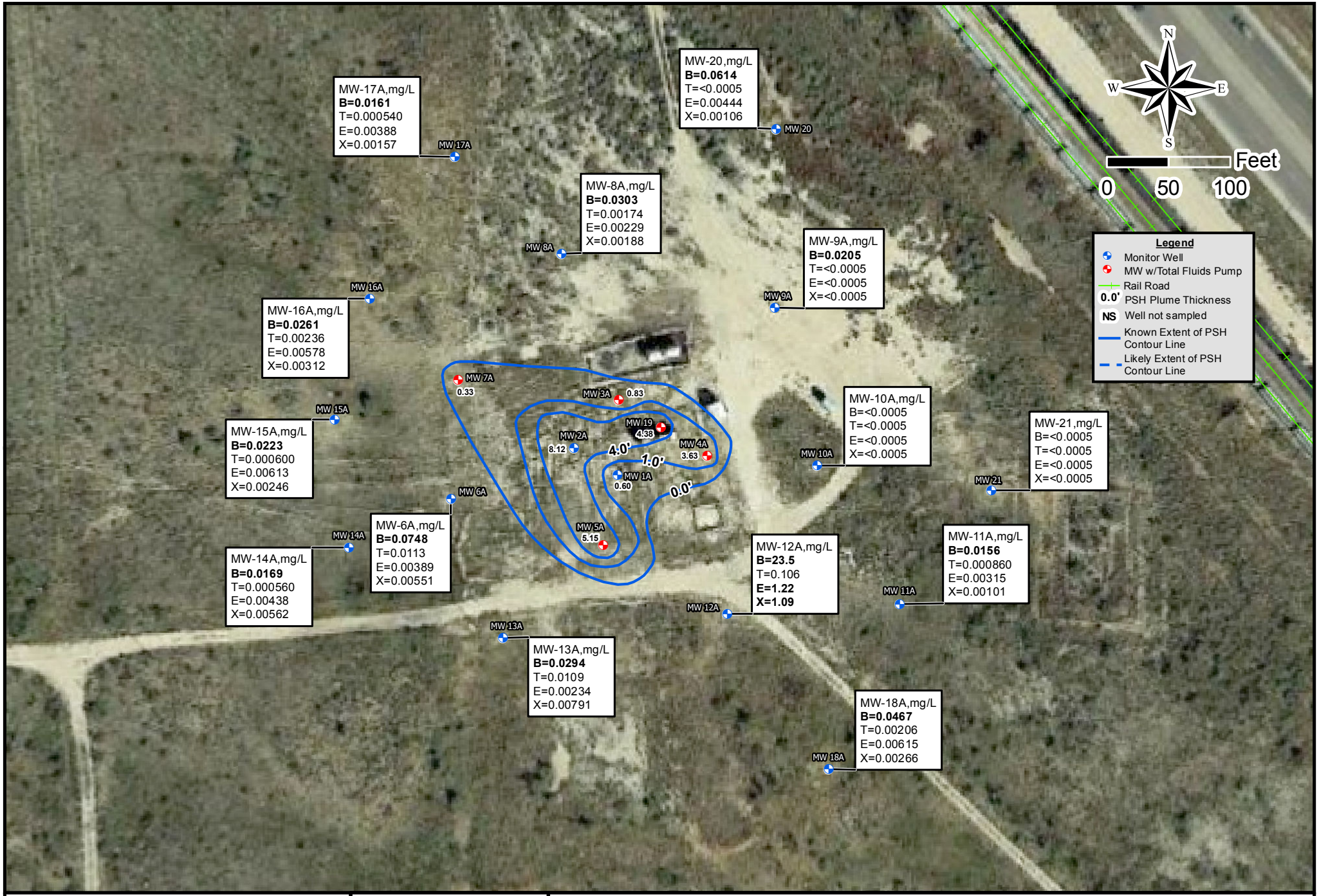
C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2b - Groundwater Gradient Map (06/13/2019)

TALON LPE

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

C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2c - Groundwater Gradient Map (09/18/2019)

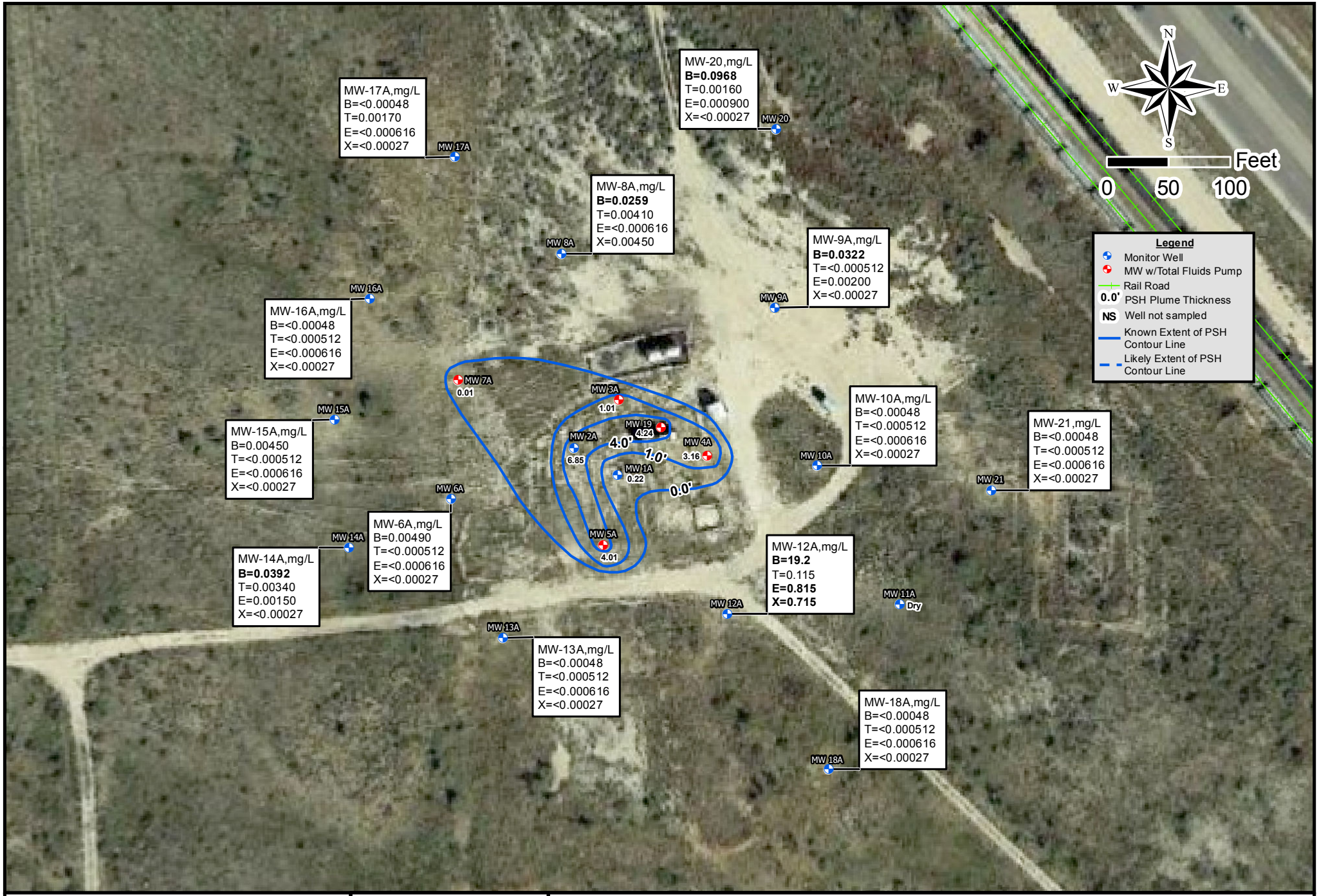
TALON LPE	Date: 1/25/2020 1 in = 100 ft Drafted By: JAI	C.S. Caylor SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382) Lea County, New Mexico Figure 2d - Groundwater Gradient Map (12/08/2019)



TALON LPE

Date: 3/16/2020
1 in = 100 ft
Drafted By: JAI

C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3a - PSH Thickness & Groundwater Concentration Map (03/21-23/2019)



TALON LPE

Date: 3/16/2020
1 in = 100 ft
Drafted By: JAI

C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3b - PSH Thickness & Groundwater Concentration Map (06/17-18/2019)

TALON LPE

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

C.S. Caylor
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3c - PSH Thickness & Groundwater Concentration Map (09/18-19/2019)

TALON LPE

Date: 1/25/2020

1 in = 100 ft

Drafted By: JAI

C.S. Caylor

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 3d - PSH Thickness & Groundwater Concentration Map (12/10-11/2019)

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 Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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-1A 4"	3810.14	76.199997	96.199997	03/21/2016	95.96	91.70	4.26	3717.74
				06/16/2016	92.78	92.08	0.7	3717.94
				09/13/2016	95.83	92.98	2.85	3716.69
				11/29/2016	95.88	92.91	2.97	3716.74
				03/13/2017	95.85	92.90	2.95	3716.75
				06/07/2017	96.00	93.18	2.82	3716.49
				09/18/2017	95.61	94.01	1.6	3715.87
				12/13/2017	95.85	93.90	1.95	3715.92
				03/23/2018	95.87	93.91	1.96	3715.91
				06/13/2018	95.90	94.60	1.3	3715.33
				09/25/2018	96.01	95.60	0.41	3714.47
				12/12/2018	95.92	95.45	0.47	3714.61
				03/21/2019	95.91	95.31	0.6	3714.73
				06/13/2019	95.87	95.65	0.22	3714.45
				09/18/2019	DR	-	-	-
				12/08/2019	DR	-	-	-
MW-2 4"	3807.38	68.099998	88.099998	06/16/2016	PA	-	-	-
MW-2A 4"	3810.14	79	109	03/21/2016	NL	-	-	-
				06/16/2016	NL	-	-	-
				09/13/2016	NL	-	-	-
				11/29/2016	98.81	92.77	6.04	3716.37
				03/13/2017	98.75	92.77	5.98	3716.38
				06/07/2017	DR	-	-	-
				09/18/2017	99.54	93.83	5.71	3715.37
				12/13/2017	100.05	93.80	6.25	3715.31
				03/23/2018	102.20	93.79	8.41	3714.96
				06/13/2018	102.20	94.48	7.72	3714.39
				09/25/2018	100.80	95.35	5.45	3713.89
				12/12/2018	100.80	95.30	5.5	3713.93
				03/21/2019	103.27	95.15	8.12	3713.65
				06/13/2019	102.35	95.50	6.85	3713.51
				09/18/2019	102.25	96.46	5.79	3712.72
				12/08/2019	102.56	96.10	6.46	3712.97
MW-3A 4"	3810.47	83	113	03/21/2016	NL	-	-	-
				06/16/2016	93.85	93.38	0.47	3717.01
				09/13/2016	95.07	94.18	0.89	3716.14
				11/29/2016	94.20	-	-	3716.27
				03/13/2017	94.31	94.25	0.06	3716.21
				06/07/2017	94.90	94.56	0.34	3715.85
				09/18/2017	95.58	95.42	0.16	3715.02
				12/13/2017	95.45	93.80	1.65	3716.40
				03/23/2018	95.68	95.22	0.46	3715.17
				06/13/2018	96.35	96.00	0.35	3714.41
				09/25/2018	97.36	97.02	0.34	3713.39
				12/12/2018	97.30	96.70	0.6	3713.67
				03/21/2019	97.14	96.31	0.83	3714.02
				06/13/2019	97.92	96.91	1.01	3713.39
				09/18/2019	98.57	97.74	0.83	3712.59
				12/08/2019	98.75	97.20	1.55	3713.01

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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 4"	3810.45	75	105	03/21/2016	97.85	92.30	5.55	3717.23
				06/16/2016	97.55	92.85	4.7	3716.82
				09/13/2016	98.57	93.66	4.91	3715.98
				11/29/2016	98.35	93.45	4.9	3716.19
				03/13/2017	98.60	93.50	5.1	3716.11
				06/07/2017	99.10	93.80	5.3	3715.78
				09/18/2017	100.56	94.55	6.01	3714.91
				12/13/2017	100.01	95.24	4.77	3714.42
				03/23/2018	99.55	94.54	5.01	3715.08
				06/13/2018	98.69	95.68	3.01	3714.27
				09/25/2018	101.11	96.48	4.63	3713.21
				12/12/2018	101.30	96.10	5.2	3713.49
				03/21/2019	99.61	95.98	3.63	3713.87
				06/13/2019	99.72	96.56	3.16	3713.37
				09/18/2019	101.31	97.23	4.08	3712.55
				12/08/2019	101.25	96.75	4.5	3712.96
MW-5 4"	3809.29	73.400002	93.400002	03/21/2016	93.05	90.85	2.2	3718.08
				06/16/2016	PA	-	-	-
MW-5A 4"	3809.3	75	109	06/16/2016	92.58	92.50	0.08	3716.79
				09/13/2016	98.33	92.32	6.01	3715.99
				11/29/2016	96.89	92.36	4.53	3716.19
				03/13/2017	97.96	92.23	5.73	3716.12
				06/07/2017	98.10	92.56	5.54	3715.83
				09/18/2017	99.72	93.33	6.39	3714.92
				12/13/2017	98.80	93.30	5.5	3715.09
				03/23/2018	99.02	93.26	5.76	3715.09
				06/13/2018	100.25	93.95	6.3	3714.31
				09/25/2018	101.70	94.28	7.42	3713.80
				12/12/2018	101.15	94.70	6.45	3713.54
				03/21/2019	99.66	94.51	5.15	3713.94
				06/13/2019	98.95	94.94	4.01	3713.70
				09/18/2019	101.86	96.00	5.86	3712.33
				12/08/2019	100.20	95.67	4.53	3712.88
MW-6A 4"	3809.04	83	114	03/21/2016	92.61	-	-	3716.43
				06/16/2016	93.04	-	-	3716.00
				09/13/2016	93.88	-	-	3715.16
				11/29/2016	93.72	-	-	3715.32
				03/13/2017	93.46	-	-	3715.58
				06/07/2017	94.12	-	-	3714.92
				09/18/2017	94.99	-	-	3714.05
				12/13/2017	94.87	-	-	3714.17
				03/23/2018	94.85	-	-	3714.19
				06/13/2018	95.55	-	-	3713.49
				09/25/2018	96.56	-	-	3712.48
				12/12/2018	96.56	-	-	3712.48
				03/21/2019	96.05	-	-	3712.99
				06/13/2019	96.60	-	-	3712.44
				09/18/2019	97.52	-	-	3711.52
				12/08/2019	97.05	-	-	3711.99

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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-7A 4"	3810.63	71	101	03/21/2016	96.71	92.60	4.11	3717.35
				06/16/2016	97.30	92.74	4.56	3717.14
				09/13/2016	94.95	94.00	0.95	3716.47
				11/29/2016	94.35	94.27	0.08	3716.35
				03/13/2017	96.40	93.90	2.5	3716.32
				06/07/2017	94.69	94.60	0.09	3716.02
				09/18/2017	95.55	95.40	0.15	3715.21
				12/13/2017	95.92	95.20	0.72	3715.31
				03/23/2018	96.94	94.97	1.97	3715.33
				06/13/2018	96.30	96.02	0.28	3714.56
				09/24/2018	97.38	97.01	0.37	3713.56
				12/12/2018	97.10	96.85	0.25	3713.74
				03/21/2019	96.88	96.55	0.33	3714.03
				06/13/2019	96.90	96.89	0.01	3713.74
				09/18/2019	99.70	97.12	2.58	3713.08
				12/08/2019	99.78	96.90	2.88	3713.25
MW-8A 4"	3810.73	73	103	03/21/2016	93.26	-	-	3717.47
				06/16/2016	93.55	-	-	3717.18
				09/13/2016	94.35	-	-	3716.38
				11/29/2016	94.27	-	-	3716.46
				03/13/2017	94.02	-	-	3716.71
				06/07/2017	94.67	-	-	3716.06
				09/18/2017	95.45	-	-	3715.28
				12/13/2017	95.40	-	-	3715.33
				03/23/2018	95.38	-	-	3715.35
				06/13/2018	96.06	-	-	3714.67
				09/25/2018	97.05	-	-	3713.68
				12/12/2018	96.91	-	-	3713.82
				03/21/2019	96.65	-	-	3714.08
				06/13/2019	97.12	-	-	3713.61
				09/18/2019	97.96	-	-	3712.77
				12/08/2019	97.60	-	-	3713.13
MW-9A 2"	3810.73	77	107	03/21/2016	93.63	-	-	3717.10
				06/16/2016	94.00	-	-	3716.73
				09/13/2016	94.81	-	-	3715.92
				11/29/2016	94.68	-	-	3716.05
				03/13/2017	94.40	-	-	3716.33
				06/07/2017	95.08	-	-	3715.65
				09/18/2017	95.91	-	-	3714.82
				12/13/2017	95.77	-	-	3714.96
				03/23/2018	95.77	-	-	3714.96
				06/13/2018	96.48	-	-	3714.25
				09/25/2018	97.54	-	-	3713.19
				12/12/2018	94.86	-	-	3715.87
				03/21/2019	97.01	-	-	3713.72
				06/13/2019	97.55	-	-	3713.18
				09/18/2019	98.48	-	-	3712.25
				12/08/2019	97.95	-	-	3712.78

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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-10A 2"	3810.41	84	114	03/21/2016	93.24	-	-	3717.17
				06/16/2016	93.68	-	-	3716.73
				09/13/2016	94.55	-	-	3715.86
				11/29/2016	94.26	-	-	3716.15
				03/13/2017	94.00	-	-	3716.41
				06/07/2017	94.72	-	-	3715.69
				09/18/2017	95.64	-	-	3714.77
				12/13/2017	95.35	-	-	3715.06
				03/23/2018	95.45	-	-	3714.96
				06/13/2018	96.16	-	-	3714.25
				09/25/2018	97.30	-	-	3713.11
				12/12/2018	96.93	-	-	3713.48
				03/21/2019	96.59	-	-	3713.82
				06/13/2019	97.20	-	-	3713.21
				09/18/2019	98.21	-	-	3712.20
				12/08/2019	97.56	-	-	3712.85
MW-11A 2"	3808.99	83	113	03/21/2016	91.93	-	-	3717.06
				06/16/2016	92.45	-	-	3716.54
				09/13/2016	93.35	-	-	3715.64
				11/29/2016	93.03	-	-	3715.96
				03/13/2017	92.71	-	-	3716.28
				06/07/2017	93.49	-	-	3715.50
				09/18/2017	94.49	-	-	3714.50
				12/13/2017	94.12	-	-	3714.87
				03/23/2018	94.21	-	-	3714.78
				06/13/2018	94.96	-	-	3714.03
				09/25/2018	96.91	-	-	3712.08
				12/12/2018	95.03	-	-	3713.96
				03/21/2019	95.27	-	-	3713.72
				06/13/2019	96.00	-	-	3712.99
				09/18/2019	97.05	-	-	3711.94
				12/08/2019	96.27	-	-	3712.72
MW-12 2"	3809.81	70.800003	90.800003	06/16/2016	PA	-	-	-
MW-12A 4"	3808.98	79	109	03/21/2016	91.90	-	-	3717.08
				06/16/2016	92.02	-	-	3716.96
				09/13/2016	93.25	-	-	3715.73
				11/29/2016	92.98	-	-	3716.00
				03/13/2017	92.70	-	-	3716.28
				06/07/2017	93.40	-	-	3715.58
				09/18/2017	94.38	-	-	3714.60
				12/13/2017	94.09	-	-	3714.89
				03/23/2018	94.50	-	-	3714.48
				06/13/2018	94.85	-	-	3714.13
				09/25/2018	96.09	-	-	3712.89
				12/12/2018	95.61	-	-	3713.37
				03/21/2019	95.25	-	-	3713.73
				06/13/2019	95.94	-	-	3713.04
				09/18/2019	96.99	96.95	0.04	3712.02
				12/08/2019	96.55	96.20	0.35	3712.72

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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-13A 4"	3809.49	78	108	03/21/2016	92.28	-	-	3717.21
				06/16/2016	92.72	-	-	3716.77
				09/13/2016	93.60	-	-	3715.89
				11/29/2016	93.37	-	-	3716.12
				03/13/2017	93.07	-	-	3716.42
				06/07/2017	93.76	-	-	3715.73
				09/18/2017	94.68	-	-	3714.81
				12/13/2017	94.48	-	-	3715.01
				03/23/2018	94.50	-	-	3714.99
				06/13/2018	95.20	-	-	3714.29
				09/25/2018	96.38	-	-	3713.11
				12/12/2018	96.00	-	-	3713.49
				03/21/2019	95.62	-	-	3713.87
				06/13/2019	96.27	-	-	3713.22
				09/18/2019	97.26	-	-	3712.23
				12/08/2019	96.68	-	-	3712.81
MW-14A 2"	3809.93	84	114	03/21/2016	92.51	-	-	3717.42
				06/16/2016	92.97	-	-	3716.96
				09/13/2016	93.78	-	-	3716.15
				11/29/2016	93.66	-	-	3716.27
				03/13/2017	93.35	-	-	3716.58
				06/07/2017	94.02	-	-	3715.91
				09/18/2017	94.87	-	-	3715.06
				12/13/2017	94.77	-	-	3715.16
				03/23/2018	94.77	-	-	3715.16
				06/13/2018	95.46	-	-	3714.47
				09/25/2018	96.52	-	-	3713.41
				12/12/2018	97.23	-	-	3712.70
				03/21/2019	95.98	-	-	3713.95
				06/13/2019	96.44	-	-	3713.49
				09/18/2019	97.42	-	-	3712.51
				12/08/2019	96.96	-	-	3712.97
MW-15 2"	3810.93	72.199997	92.199997	03/21/2016	DR	-	-	-
				06/16/2016	PA	-	-	-
MW-15A 2"	3810.76	75	120	07/12/2016	93.79	-	-	3716.97
				09/13/2016	94.40	-	-	3716.36
				11/29/2016	94.30	-	-	3716.46
				03/13/2017	94.05	-	-	3716.71
				06/07/2017	94.68	-	-	3716.08
				09/18/2017	95.48	-	-	3715.28
				12/13/2017	95.44	-	-	3715.32
				03/23/2018	95.41	-	-	3715.35
				06/13/2018	96.10	-	-	3714.66
				09/25/2018	97.04	-	-	3713.72
				12/12/2018	97.00	-	-	3713.76
				03/21/2019	96.66	-	-	3714.10
				06/13/2019	97.13	-	-	3713.63
				09/18/2019	98.03	-	-	3712.73
				12/08/2019	97.65	-	-	3713.11

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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	3812.23	71.199997	91.199997	03/21/2016	DR	-	-	-
2"				06/16/2016	PA	-	-	-
MW-16A	3811.72	75	120	07/12/2016	94.61	-	-	3717.11
2"				09/13/2016	95.22	-	-	3716.50
				11/29/2016	95.20	-	-	3716.52
				03/13/2017	94.93	-	-	3716.79
				06/07/2017	95.54	-	-	3716.18
				09/18/2017	96.30	-	-	3715.42
				12/13/2017	96.31	-	-	3715.41
				03/23/2018	96.27	-	-	3715.45
				06/13/2018	96.96	-	-	3714.76
				09/25/2018	97.88	-	-	3713.84
				12/12/2018	97.80	-	-	3713.92
				03/21/2019	97.54	-	-	3714.18
				06/13/2019	97.97	-	-	3713.75
				09/18/2019	98.85	-	-	3712.87
				12/08/2019	98.50	-	-	3713.22
MW-17	3810.57	71	92.699997	03/21/2016	DR	-	-	-
2"				06/16/2016	PA	-	-	-
MW-17A	3810.63	75	120	07/12/2016	93.40	-	-	3717.23
2"				09/13/2016	94.00	-	-	3716.63
				11/29/2016	94.32	-	-	3716.31
				03/13/2017	93.76	-	-	3716.87
				06/07/2017	93.33	-	-	3717.30
				09/18/2017	95.08	-	-	3715.55
				12/13/2017	95.01	-	-	3715.62
				03/23/2018	95.04	-	-	3715.59
				06/13/2018	95.71	-	-	3714.92
				09/25/2018	96.68	-	-	3713.95
				12/12/2018	96.66	-	-	3713.97
				03/21/2019	96.39	-	-	3714.24
				06/13/2019	96.77	-	-	3713.86
				09/18/2019	97.62	-	-	3713.01
				12/08/2019	97.31	-	-	3713.32
MW-18A	3809.46	84	114	03/21/2016	92.56	-	-	3716.90
2"				06/16/2016	93.08	-	-	3716.38
				09/13/2016	93.98	-	-	3715.48
				11/29/2016	93.58	-	-	3715.88
				03/13/2017	93.28	-	-	3716.18
				06/07/2017	94.08	-	-	3715.38
				09/18/2017	95.14	-	-	3714.32
				12/13/2017	94.70	-	-	3714.76
				03/23/2018	94.81	-	-	3714.65
				06/13/2018	95.54	-	-	3713.92
				09/25/2018	96.91	-	-	3712.55
				12/12/2018	96.25	-	-	3713.21
				03/21/2019	95.84	-	-	3713.62
				06/13/2019	96.61	-	-	3712.85
				09/18/2019	97.72	-	-	3711.74
				12/08/2019	96.86	-	-	3712.60

Table 1 - Groundwater Gauging and NAPL Thickness - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

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	3811.05	75	120	06/16/2016	94.18	-	-	3716.87
4"				09/13/2016	99.15	94.23	4.92	3716.01
				11/29/2016	97.58	94.31	3.27	3716.20
				03/13/2017	99.20	94.05	5.15	3716.15
				06/07/2017	97.61	94.76	2.85	3715.82
				09/18/2017	101.00	95.11	5.89	3714.97
				12/13/2017	99.30	95.24	4.06	3715.14
				03/23/2018	98.08	95.49	2.59	3715.13
				06/13/2018	100.97	95.96	5.01	3714.26
				09/25/2018	100.01	97.31	2.7	3713.29
				12/12/2018	98.90	97.30	1.6	3713.49
				03/21/2019	100.81	96.43	4.38	3713.90
				06/13/2019	101.23	96.99	4.24	3713.36
				09/18/2019	102.49	97.92	4.57	3712.38
				12/08/2019	101.33	97.48	3.85	3712.93
MW-20	3810	75	114	07/12/2016	92.95	-	-	3717.05
2"				09/13/2016	93.57	-	-	3716.43
				11/29/2016	93.54	-	-	3716.46
				03/13/2017	93.27	-	-	3716.73
				06/07/2017	93.89	-	-	3716.11
				09/18/2017	94.68	-	-	3715.32
				12/13/2017	94.63	-	-	3715.37
				03/23/2018	94.58	-	-	3715.42
				06/13/2018	95.27	-	-	3714.73
				09/25/2018	96.02	-	-	3713.98
				12/12/2018	96.21	-	-	3713.79
				03/21/2019	95.87	-	-	3714.13
				06/13/2019	96.31	-	-	3713.69
				09/18/2019	97.19	-	-	3712.81
				12/08/2019	96.78	-	-	3713.22
MW-21	3809.06	75	109	07/12/2016	92.65	-	-	3716.41
2"				09/13/2016	93.25	-	-	3715.81
				11/29/2016	93.00	-	-	3716.06
				03/13/2017	92.68	-	-	3716.38
				06/07/2017	93.45	-	-	3715.61
				09/18/2017	94.41	-	-	3714.65
				12/13/2017	94.06	-	-	3715.00
				03/23/2018	94.15	-	-	3714.91
				06/13/2018	94.87	-	-	3714.19
				09/25/2018	95.94	-	-	3713.12
				12/12/2018	95.60	-	-	3713.46
				03/21/2019	95.27	-	-	3713.79
				06/13/2019	95.91	-	-	3713.15
				09/18/2019	96.97	-	-	3712.09
				12/08/2019	96.23	-	-	3712.83

Specific Gravity = 0.835

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
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
NMOCD - Groundwater		0.01	0.75	0.75	0.62	
MW-6A	03/22/2016	**0.0693**	0.00910	0.000400 J	0.00500	
	06/16/2016	0.00130	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00140	<0.000621	<0.000763	<0.000256	
	11/29/2016	**0.0148**	<0.00100	<0.000657	<0.000642	
	03/14/2017	**0.0241**	0.00205	<0.000657	<0.000630	0.0262
	06/07/2017	**0.652**	0.0551	0.0304	0.0354	0.773
	09/19/2017	**0.235 X**	0.0231	0.00911	0.00926	0.276
	12/19/2017	**0.0699**	0.00436	0.00227	0.00517	0.0817
	03/27/2018	<0.000408	0.000750 J	<0.000657	<0.000630	0.000750 J
	06/13/2018	**0.0329**	0.00300	0.00110	0.000800 J	0.0378
	09/28/2018	**0.0522**	0.00423	<0.000657	0.00201	0.0584
	12/12/2018	**0.163**	0.0139	0.0090	0.0147	0.201
	03/22/2019	**0.0748**	0.0113	0.00389	0.00551	0.0955
	06/18/2019	0.00490	<0.000512	<0.000616	<0.00027	0.00490
	09/19/2019	0.00329	<0.002	<0.002	<0.002	0.00329
	12/10/2019	0.000620	<0.000367	<0.000657	<0.000630	0.000620
MW-8A	03/22/2016	**0.0799**	0.0304	0.00380	0.0138	
	06/16/2016	0.00950	0.00210	<0.000763	0.00110	
	09/13/2016	**0.0171**	0.00250	<0.000763	0.00140	
	11/29/2016	**0.0190**	0.00464	<0.000657	<0.000642	
	03/14/2017	**0.0220**	0.00785	0.00221	0.00462	0.0367
	06/07/2017	**0.0281**	0.00902	0.00165 J	0.00465	0.0434
	09/19/2017	**0.0398**	0.00721	0.000980 J	0.00324	0.0512
	12/19/2017	**0.0162**	0.00517	0.000690 J	0.00266	0.0247
	03/27/2018	0.00332	0.00187 J	<0.000657	0.000720 J	0.00591
	06/13/2018	0.00300	<0.000512	<0.000616	<0.000270	0.00300
	09/28/2018	**0.0363**	0.00535	<0.000657	0.00296	0.0446
	12/12/2018	**0.0135**	0.003	0.001 J	0.0022	0.0197
	03/23/2019	**0.0303**	0.00174	0.00229	0.00188	0.0362
	06/17/2019	**0.0259**	0.00410	<0.000616	0.00450	0.0345
	09/19/2019	**0.0519**	0.00919	<0.002	0.00491	0.0660
	12/10/2019	0.00226	0.000380	<0.000657	<0.000630	0.00264
MW-9A	03/22/2016	**0.147**	0.000700 J	0.00590	0.00170	
	06/16/2016	**0.0400**	<0.000621	0.00160	0.000300 J	
	09/13/2016	**0.0382**	<0.00329	<0.00404	<0.00136	
	11/29/2016	**0.106**	0.00332	0.00406	0.00244	
	03/14/2017	**0.381**	<0.000367	0.0186	0.00401	0.404
	06/07/2017	**0.394**	0.00412	0.0123	0.00456	0.415
	09/19/2017	**0.253**	0.00110 J	0.00623	0.00164 J	0.262
	12/19/2017	**0.0404**	<0.000367	0.000800 J	0.00115 J	0.0424
	03/27/2018	**0.0168**	0.00117 J	<0.000657	<0.000630	0.0180
	06/13/2018	0.00710	<0.000512	<0.000616	<0.000270	0.00710
	09/28/2018	**0.0160**	<0.000367	<0.000657	<0.000630	0.0160
	12/12/2018	**0.0607**	<0.000512	0.0018	0.0005 J	0.0630
	03/23/2019	**0.0205**	<0.0005	<0.0005	<0.0005	0.0205
	06/18/2019	**0.0322**	<0.000512	0.00200	<0.00027	0.0342
	09/18/2019	**0.276**	<0.002	0.00849	<0.002	0.284
	12/10/2019	0.00517	0.000540	<0.000657	<0.000630	0.00571
MW-10A	03/22/2016	**0.0227**	0.00650	<0.000238	0.00540	
	06/16/2016	0.00160	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00200	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	**0.0144**	0.00338	<0.000657	0.00373	0.0215
	06/07/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.000850 J	<0.000367	<0.000657	<0.000630	0.000850 J
	06/13/2018	**0.0129**	<0.000512	<0.000616	<0.000270	0.0129
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.0018	<0.000512	<0.000616	<0.00027	0.0018
	03/22/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/18/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.000550	<0.000367	<0.000657	<0.000630	0.000550

Table 2 - Groundwater Analytical Data - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-11A	03/22/2016	0.000400 J	0.000500 J	<0.000238	0.000800 J	
	06/16/2016	0.00200	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	**0.0159**	0.00110 J	<0.000657	<0.000642	0.0170
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	0.00432	<0.000367	<0.000657	<0.000630	0.00432
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	**0.0156**	0.000860	0.00315	0.00101	0.0206
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
MW-12A	03/22/2016	**4.46**	0.0159 J	0.195	0.233	
	09/13/2016	**5.70**	<0.0329	0.208	0.179	
	11/29/2016	**12.8**	<0.0500	0.539	0.327	
	03/14/2017	**11.8**	<0.0367	0.539	<0.0630	12.3
	06/07/2017	**26.4**	<0.100	**0.985**	0.473	27.9
	09/19/2017	**16.2 D**	0.0427	0.597 D	0.253	17.1
	12/19/2017	**5.34 D**	0.0260	0.217	0.123	5.71
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2018	**6.35**	<0.0512	0.260	<0.0270	6.61
	09/28/2018	**19.7 D**	0.159	0.65 D	0.289	20.8
	12/12/2018	**12.2**	0.045 J	0.475	0.39	13.1
	03/22/2019	**23.5**	0.106	**1.22**	**1.09**	25.9
	06/17/2019	**19.2**	0.115	**0.815**	**0.715**	20.8
MW-13A	03/22/2016	0.000700 J	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00210	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	0.0064	0.0006 J	<0.000616	<0.00027	0.007
	03/22/2019	**0.0294**	0.0109	0.00234	0.00791	0.0506
	06/18/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
MW-14A	03/22/2016	<0.000223	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00370	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.000860 J	0.00127 J	<0.000657	0.00197 J	0.00410
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00166 J	<0.000367	<0.000657	<0.000630	0.00166 J
	06/13/2018	0.00120	<0.000512	<0.000616	<0.000270	0.00120
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	**0.0169**	0.000560	0.00438	0.00562	0.0275
	06/17/2019	**0.0392**	0.00340	0.00150	<0.00027	0.0441
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367

Table 2 - Groundwater Analytical Data - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-15A	07/12/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00130	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.000770 J	<0.00100	<0.000657	<0.000642	0.000770 J
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00253	0.000770 J	<0.000657	<0.000630	0.00330
	06/13/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	**0.264**	0.0081	0.0177	0.0114	0.301
	03/23/2019	**0.0223**	0.000600	0.00613	0.00246	0.0315
	06/18/2019	0.00450	<0.000512	<0.000616	<0.00027	0.00450
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.000930	0.000380	<0.000657	<0.000630	0.00131
MW-16A	07/12/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.00319	<0.000367	<0.000657	<0.000630	0.00319
	06/07/2017	0.000840 J	<0.00100	<0.000657	<0.000642	0.000840 J
	09/19/2017	<0.000408	<0.00100	<0.000657	<0.000630	<0.000408
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00182 J	0.000740 J	<0.000657	<0.000630	0.00256
	06/13/2018	0.00100 J	<0.000512	<0.000616	<0.000270	0.00100 J
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	**0.13**	0.0041	0.0111	0.0068	0.152
	03/23/2019	**0.0261**	0.00236	0.00578	0.00312	0.0374
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.00227	<0.000367	<0.000657	<0.000630	0.00227
MW-17A	07/12/2016	0.000800 J	<0.000621	<0.000763	<0.000256	
	09/13/2016	<0.000504	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	0.00224	<0.000367	<0.000657	<0.000630	0.00224
	06/07/2017	0.000440 J	<0.00100	<0.000657	<0.000642	0.000440 J
	09/19/2017	0.00117 J	<0.00100	<0.000657	<0.000630	0.00117 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00185 JXF	0.000600 J	<0.000657	<0.000630	0.00245
	06/13/2018	0.00180	<0.000512	<0.000616	<0.000270	0.00180
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	**0.0161**	0.000540	0.00388	0.00157	0.0221
	06/17/2019	<0.00048	0.00170	<0.000616	<0.00027	0.00170
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/10/2019	0.000680	0.000530	<0.000657	<0.000630	0.00121
MW-18A	03/22/2016	0.00150	<0.000238	<0.000238	<0.000243	
	06/16/2016	0.00190	<0.000621	<0.000763	<0.000256	
	09/13/2016	0.00120	<0.000621	<0.000763	<0.000256	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.00142 J	<0.00100	<0.000657	<0.000642	0.00142 J
	09/19/2017	0.00114 J	<0.00100	<0.000657	<0.000630	0.00114 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00171 J	<0.000367	<0.000657	<0.000630	0.00171 J
	06/13/2018	**0.0620**	0.00100 J	0.00540	0.00130	0.0697
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/23/2019	**0.0467**	0.00206	0.00615	0.00266	0.0576
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.00116	0.000370	<0.000657	<0.000630	0.00153

Table 2 - Groundwater Analytical Data - Historical
CS Caylor
Lea County, NM
SRS#: 2002-10250

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-20	07/12/2016	**0.0364**	0.00851	0.000840 J	0.04491	
	09/13/2016	**0.382**	0.0478	0.00590	0.00630	
	11/29/2016	**0.244**	0.0262	0.00378	0.00620	
	03/14/2017	**0.306**	0.0177	<0.000657	<0.000630	0.324
	06/07/2017	**0.0449**	0.00532	<0.000657	<0.000642	0.0502
	09/19/2017	**1.89 D**	0.221	0.0252	0.0223	2.16
	12/19/2017	**0.275**	0.00877	0.0163	0.00765	0.308
	03/27/2018	**0.0896**	0.00241	0.00594	0.00103 J	0.0990
	06/13/2018	**0.496**	<0.00256	0.00650	<0.00135	0.503
	09/28/2018	**0.0455**	<0.000367	0.00333	0.00277	0.0516
	12/12/2018	**0.155**	0.0032	0.0086	0.002	0.169
	03/23/2019	**0.0614**	<0.0005	0.00444	0.00106	0.0669
	06/18/2019	**0.0968**	0.00160	0.000900	<0.00027	0.0993
	09/19/2019	**0.353**	0.00435	0.0283	<0.002	0.386
	12/10/2019	**0.102**	0.000650	<0.000657	<0.000630	0.103
MW-21	07/12/2016	<0.340	<0.350	<0.260	<0.480	
	09/13/2016	**0.136**	0.00890	0.0134	0.0168	
	11/29/2016	<0.000408	<0.00100	<0.000657	<0.000642	
	03/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/07/2017	0.00649	<0.00100	<0.000657	<0.000642	0.00649
	09/19/2017	0.00156 J	<0.00100	<0.000657	<0.000630	0.00156 J
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/27/2018	0.00138 J	<0.000367	<0.000657	<0.000630	0.00138 J
	06/13/2018	**0.0233**	<0.000512	0.00400	0.000800 J	0.0281
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/12/2018	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	03/22/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/17/2019	<0.00048	<0.000512	<0.000616	<0.00027	<0.00027
	09/19/2019	<0.002	<0.002	<0.002	<0.002	<0.002
	12/11/2019	0.000890	0.000500	<0.000657	<0.000630	0.00139

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

Analyte concentration exceeds the standard for:
NMOCD - Groundwater

Table 3 - Groundwater Analytical Data - Historical - PAH Supplement
CS Caylor
Lea County, NEW MEXICO
SRS#: 2002-10250

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-6A	11/29/2016	<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
MW-9A	11/29/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000104	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250
	03/27/2018	<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	0.000475	0.000168 J	<0.000108
	03/23/2019	<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-12A	03/22/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	0.000492	<0.0000638	<0.0000788	<0.0000537	0.00165	0.000335	<0.0000415
	11/29/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.00233	<0.0000250	0.000921	<0.0000250	0.021 D	0.00107	<0.0000250
MW-15A	07/12/2016	<0.0000350	<0.0000612	<0.0000338	<0.0000759	<0.0000440	<0.0000748	<0.0000546	<0.0000591	<0.0000854	<0.0000592	<0.0000639	<0.0000672	<0.0000830	<0.0000565	<0.0000691	<0.0000543	<0.0000437
	03/27/2018	<0.000109	<0.000109	<0.000109	0.000229	0.000175 J	0.000213	0.000195	0.000146 J	0.000214	0.000143 J	<0.000109	0.000191	<0.000109	0.000155 J	<0.000109	<0.000109	0.000202
	03/23/2019	<0.0000042	<0.0000075	<0.0000077	<0.0000065	<0.0000097	<0.0000093	<0.0000081	<0.0000079	<0.0000090	<0.0000050	<0.0000054	<0.0000091	<0.0000056	<0.0000050	0.0000873	<0.0000056	<0.0000094
MW-16A	07/12/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	<0.0000607	<0.0000638	<0.0000788	<0.0000537	<0.0000656	<0.0000516	<0.0000415
	03/27/2018	<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
	03/23/2019	<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	0.000276	<0.0000055	<0.0000092
MW-17A	07/12/2016	<0.0000330	<0.0000578	<0.0000319	<0.0000717	<0.0000416	<0.0000706	<0.0000516	<0.0000558	<0.0000807	<0.0000559	<0.0000604	<0.0000635	<0.0000784	<0.0000534	<0.0000653	<0.0000513	<0.0000413
	03/27/2018	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107	<0.000107
	03/23/2019	<0.0000040	<0.0000072	<0.0000075	<0.0000063	<0.0000095	<0.0000090	<0.0000079	<0.0000077	<0.0000087	<0.0000049	<0.0000052	<0.0000089	<0.0000054	<0.0000049	0.0000284	<0.0000055	<0.0000091
MW-18A	03/22/2016	<0.0000332	<0.0000581	<0.0000321	<0.0000721	<0.0000418	<0.0000710	<0.0000519	<0.0000561	<0.0000811	<0.0000562	0.000200	<0.0000638	<0.0000788	<0.0000537	<0.0000656	<0.0000516	<0.0000415
	03/27/2018	<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	0.000301	<0.000109
	03/23/2019	<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	0.000308	0.0000268	<0.0000093
MW-20	07/12/2016	<0.000921	<0.000911	<0.000902	<0.000843	<0.00114	<0.00123	<0.00105	<0.000706	<0.000823	<0.00105	<0.000813	<0.000745	<0.000853	<0.00110	<0.000843	<0.000960	<0.000931
	03/27/2018	<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
	03/23/2019	<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-21	07/12/2016	<0.000931	<0.000921	<0.000911	<0.000851	<0.00115	<0.00125	0.00134 J	<0.000713	<0.000832	<0.00106	<0.000822	<0.000752	<0.000861	<0.00111	<0.000851	<0.000970	<0.000940

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 618906

for

Talon/LPE Co.

Project Manager: David Adkins

CS Caylor

700376 049 04

04.03.2019

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)

04.03.2019

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

Reference: XENCO Report No(s): **618906**
CS Caylor
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) 618906. 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. 618906 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 618906

Talon/LPE Co., Amarillo, TX

CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW10A	W	03.22.2019 13:20		618906-001
MW21	W	03.22.2019 15:10		618906-002
MW11A	W	03.23.2019 09:00		618906-003
MW18A	W	03.23.2019 08:25		618906-004
MW12A	W	03.22.2019 14:30		618906-005
MW13A	W	03.22.2019 15:25		618906-006
MW14A	W	03.23.2019 13:20		618906-007
MW6A	W	03.22.2019 16:35		618906-008
MW15A	W	03.23.2019 12:50		618906-009
MW16A	W	03.23.2019 11:30		618906-010
MW17A	W	03.23.2019 10:50		618906-011
MW8A	W	03.23.2019 10:20		618906-012
MW20	W	03.23.2019 09:35		618906-013
MW9A	W	03.23.2019 13:55		618906-014

CASE NARRATIVE

Client Name: Talon/LPE Co.

Project Name: CS Caylor

Project ID:	*700376 049 04*	Report Date:	*04.03.2019*
Work Order Number(s):	*618906*	Date Received:	*03.26.2019*

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
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **MW10A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-001 Date Collected: 03.22.2019 13:20 Date Received: 03.26.2019 11:30

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084133 Date Prep: 03.30.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674791

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.31.2019 10:45	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.31.2019 10:45	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.31.2019 10:45	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.31.2019 10:45	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.31.2019 10:45	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.31.2019 10:45	U	
Total BTEX		<0.000500		0.000500	mg/L	03.31.2019 10:45	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	99	63 - 144	%		
Toluene-D8	101	80 - 117	%		

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

Lab Sample Id: 618906-002 Date Collected: 03.22.2019 15:10 Date Received: 03.26.2019 11:30

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084133 Date Prep: 03.30.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674791

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.31.2019 11:08	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.31.2019 11:08	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.31.2019 11:08	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.31.2019 11:08	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.31.2019 11:08	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.31.2019 11:08	U	
Total BTEX		<0.000500		0.000500	mg/L	03.31.2019 11:08	U	

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

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX

CS Caylor

Sample Id: **MW11A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-003 Date Collected: 03.23.2019 09:00 Date Received: 03.26.2019 11:30

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084133 Date Prep: 03.30.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674791

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0156**	0.00100	0.000500	mg/L	03.31.2019 10:22		1
Toluene	108-88-3	**0.000860**	0.00100	0.000500	mg/L	03.31.2019 10:22	J	1
Ethylbenzene	100-41-4	**0.00315**	0.00100	0.000500	mg/L	03.31.2019 10:22		1
m,p-Xylenes	179601-23-1	**0.00101**	0.00200	0.00100	mg/L	03.31.2019 10:22	J	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.31.2019 10:22	U	1
Total Xylenes	1330-20-7	**0.00101**		0.000500	mg/L	03.31.2019 10:22		
Total BTEX		**0.0206**		0.000500	mg/L	03.31.2019 10:22		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	99	75 - 131	%		
1,2-Dichloroethane-D4	100	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **MW18A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-004 Date Collected: 03.23.2019 08:25 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:00

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 11:55	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.29.2019 11:55	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.29.2019 11:55	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.29.2019 11:55	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.29.2019 11:55	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.29.2019 11:55	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000505	0.00000804	mg/L	03.29.2019 11:55	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.29.2019 11:55	U	1
Chrysene	218-01-9	<0.00000890	0.0000505	0.00000889	mg/L	03.29.2019 11:55	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 11:55	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000505	0.00000536	mg/L	03.29.2019 11:55	U	1
Fluoranthene	206-44-0	<0.00000910	0.0000505	0.00000905	mg/L	03.29.2019 11:55	U	1
Fluorene	86-73-7	<0.00000550	0.0000505	0.00000551	mg/L	03.29.2019 11:55	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.29.2019 11:55	U	1
Naphthalene	91-20-3	**0.000308**	0.000505	0.00000455	mg/L	03.29.2019 11:55	J	1
Phenanthrene	85-01-8	**0.0000268**	0.0000505	0.00000556	mg/L	03.29.2019 11:55	J	1
Pyrene	129-00-0	<0.00000930	0.0000505	0.00000929	mg/L	03.29.2019 11:55	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	99	41 - 128	%		
2-Fluorobiphenyl	87	55 - 135	%		
Terphenyl-D14	91	54 - 131	%		

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618906

Talon/LPE Co., Amarillo, TX

CS Caylor

Sample Id: **MW18A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-004 Date Collected: 03.23.2019 08:25 Date Received: 03.26.2019 11:30

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084133 Date Prep: 03.30.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674791

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0467**	0.00100	0.000500	mg/L	03.31.2019 11:31		1
Toluene	108-88-3	**0.00206**	0.00100	0.000500	mg/L	03.31.2019 11:31		1
Ethylbenzene	100-41-4	**0.00615**	0.00100	0.000500	mg/L	03.31.2019 11:31		1
m,p-Xylenes	179601-23-1	**0.00193**	0.00200	0.00100	mg/L	03.31.2019 11:31	J	1
o-Xylene	95-47-6	**0.000730**	0.00100	0.000500	mg/L	03.31.2019 11:31	J	1
Total Xylenes	1330-20-7	**0.00266**		0.000500	mg/L	03.31.2019 11:31		
Total BTEX		**0.0576**		0.000500	mg/L	03.31.2019 11:31		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	98	75 - 131	%		
1,2-Dichloroethane-D4	100	63 - 144	%		
Toluene-D8	102	80 - 117	%		

Sample Id: **MW12A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-005 Date Collected: 03.22.2019 14:30 Date Received: 03.26.2019 11:30

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	**23.5**	0.200	0.100	mg/L	04.02.2019 17:19	D	200
Toluene	108-88-3	**0.106**	0.0100	0.00500	mg/L	04.02.2019 17:01		10
Ethylbenzene	100-41-4	**1.22**	0.0100	0.00500	mg/L	04.02.2019 17:01		10
m,p-Xylenes	179601-23-1	**0.790**	0.0200	0.0100	mg/L	04.02.2019 17:01		10
o-Xylene	95-47-6	**0.300**	0.0100	0.00500	mg/L	04.02.2019 17:01		10
Total Xylenes	1330-20-7	**1.09**		0.00500	mg/L	04.02.2019 17:01		
Total BTEX		**25.9**		0.00500	mg/L	04.02.2019 17:19		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	100	75 - 131	%		
1,2-Dichloroethane-D4	75	63 - 144	%		
Toluene-D8	86	80 - 117	%		

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618906

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Sample Id: **MW13A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-006 Date Collected: 03.22.2019 15:25 Date Received: 03.26.2019 11:30

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	**0.0294**	0.00100	0.000500	mg/L	04.02.2019 18:46		1
Toluene	108-88-3	**0.0109**	0.00100	0.000500	mg/L	04.02.2019 18:46		1
Ethylbenzene	100-41-4	**0.00234**	0.00100	0.000500	mg/L	04.02.2019 18:46		1
m,p-Xylenes	179601-23-1	**0.00521**	0.00200	0.00100	mg/L	04.02.2019 18:46		1
o-Xylene	95-47-6	**0.00270**	0.00100	0.000500	mg/L	04.02.2019 18:46		1
Total Xylenes	1330-20-7	**0.00791**		0.000500	mg/L	04.02.2019 18:46		
Total BTEX		**0.0506**		0.000500	mg/L	04.02.2019 18:46		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	99	75 - 131	%		
1,2-Dichloroethane-D4	94	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Sample Id: **MW14A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-007 Date Collected: 03.23.2019 13:20 Date Received: 03.26.2019 11:30

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	**0.0169**	0.00100	0.000500	mg/L	04.02.2019 19:04		1
Toluene	108-88-3	**0.000560**	0.00100	0.000500	mg/L	04.02.2019 19:04	J	1
Ethylbenzene	100-41-4	**0.00438**	0.00100	0.000500	mg/L	04.02.2019 19:04		1
m,p-Xylenes	179601-23-1	**0.00386**	0.00200	0.00100	mg/L	04.02.2019 19:04		1
o-Xylene	95-47-6	**0.00176**	0.00100	0.000500	mg/L	04.02.2019 19:04		1
Total Xylenes	1330-20-7	**0.00562**		0.000500	mg/L	04.02.2019 19:04		
Total BTEX		**0.0275**		0.000500	mg/L	04.02.2019 19:04		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	96	63 - 144	%		
Toluene-D8	98	80 - 117	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW6A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-008 Date Collected: 03.22.2019 16:35 Date Received: 03.26.2019 11:30

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	**0.0748**	0.00100	0.000500	mg/L	04.02.2019 19:22		1
Toluene	108-88-3	**0.0113**	0.00100	0.000500	mg/L	04.02.2019 19:22		1
Ethylbenzene	100-41-4	**0.00389**	0.00100	0.000500	mg/L	04.02.2019 19:22		1
m,p-Xylenes	179601-23-1	**0.00354**	0.00200	0.00100	mg/L	04.02.2019 19:22		1
o-Xylene	95-47-6	**0.00197**	0.00100	0.000500	mg/L	04.02.2019 19:22		1
Total Xylenes	1330-20-7	**0.00551**		0.000500	mg/L	04.02.2019 19:22		
Total BTEX		**0.0955**		0.000500	mg/L	04.02.2019 19:22		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	97	63 - 144	%		
Toluene-D8	107	80 - 117	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW15A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-009 Date Collected: 03.23.2019 12:50 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:03

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 12:13	U	1
Acenaphthylene	208-96-8	<0.00000750	0.0000510	0.00000746	mg/L	03.29.2019 12:13	U	1
Anthracene	120-12-7	<0.00000770	0.0000510	0.00000773	mg/L	03.29.2019 12:13	U	1
Benzo(a)anthracene	56-55-3	<0.00000650	0.0000510	0.00000645	mg/L	03.29.2019 12:13	U	1
Benzo(a)pyrene	50-32-8	<0.00000980	0.0000510	0.00000975	mg/L	03.29.2019 12:13	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000930	0.0000510	0.00000926	mg/L	03.29.2019 12:13	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000810	0.0000510	0.00000813	mg/L	03.29.2019 12:13	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000800	0.0000510	0.00000795	mg/L	03.29.2019 12:13	U	1
Chrysene	218-01-9	<0.00000900	0.0000510	0.00000898	mg/L	03.29.2019 12:13	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000510	0.0000510	0.00000505	mg/L	03.29.2019 12:13	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000510	0.00000541	mg/L	03.29.2019 12:13	U	1
Fluoranthene	206-44-0	<0.00000920	0.0000510	0.00000915	mg/L	03.29.2019 12:13	U	1
Fluorene	86-73-7	<0.00000560	0.0000510	0.00000557	mg/L	03.29.2019 12:13	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000510	0.0000510	0.00000505	mg/L	03.29.2019 12:13	U	1
Naphthalene	91-20-3	**0.0000873**	0.000510	0.00000460	mg/L	03.29.2019 12:13	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000510	0.00000562	mg/L	03.29.2019 12:13	U	1
Pyrene	129-00-0	<0.00000940	0.0000510	0.00000939	mg/L	03.29.2019 12:13	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	86	41 - 128	%		
2-Fluorobiphenyl	86	55 - 135	%		
Terphenyl-D14	96	54 - 131	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW15A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-009 Date Collected: 03.23.2019 12:50 Date Received: 03.26.2019 11:30

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	**0.0223**	0.00100	0.000500	mg/L	04.02.2019 19:40		1
Toluene	108-88-3	**0.000600**	0.00100	0.000500	mg/L	04.02.2019 19:40	J	1
Ethylbenzene	100-41-4	**0.00613**	0.00100	0.000500	mg/L	04.02.2019 19:40		1
m,p-Xylenes	179601-23-1	**0.00188**	0.00200	0.00100	mg/L	04.02.2019 19:40	J	1
o-Xylene	95-47-6	**0.000580**	0.00100	0.000500	mg/L	04.02.2019 19:40	J	1
Total Xylenes	1330-20-7	**0.00246**		0.000500	mg/L	04.02.2019 19:40		
Total BTEX		**0.0315**		0.000500	mg/L	04.02.2019 19:40		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	99	75 - 131	%		
1,2-Dichloroethane-D4	94	63 - 144	%		
Toluene-D8	104	80 - 117	%		

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618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **MW16A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-010 Date Collected: 03.23.2019 11:30 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:06

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 12:31	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 12:31	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 12:31	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 12:31	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 12:31	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 12:31	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 12:31	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 12:31	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 12:31	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 12:31	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 12:31	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 12:31	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 12:31	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 12:31	U	1
Naphthalene	91-20-3	**0.000276**	0.000500	0.00000451	mg/L	03.29.2019 12:31	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 12:31	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 12:31	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	87	41 - 128	%		
2-Fluorobiphenyl	80	55 - 135	%		
Terphenyl-D14	87	54 - 131	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW16A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-010 Date Collected: 03.23.2019 11:30 Date Received: 03.26.2019 11:30

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	**0.0261**	0.00100	0.000500	mg/L	04.02.2019 19:58		1
Toluene	108-88-3	**0.00236**	0.00100	0.000500	mg/L	04.02.2019 19:58		1
Ethylbenzene	100-41-4	**0.00578**	0.00100	0.000500	mg/L	04.02.2019 19:58		1
m,p-Xylenes	179601-23-1	**0.00230**	0.00200	0.00100	mg/L	04.02.2019 19:58		1
o-Xylene	95-47-6	**0.000820**	0.00100	0.000500	mg/L	04.02.2019 19:58	J	1
Total Xylenes	1330-20-7	**0.00312**		0.000500	mg/L	04.02.2019 19:58		
Total BTEX		**0.0374**		0.000500	mg/L	04.02.2019 19:58		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	93	63 - 144	%		
Toluene-D8	95	80 - 117	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW17A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-011 Date Collected: 03.23.2019 10:50 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:09

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

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000400	0.0000495	0.00000404	mg/L	03.29.2019 12:49	U	1
Acenaphthylene	208-96-8	<0.00000720	0.0000495	0.00000723	mg/L	03.29.2019 12:49	U	1
Anthracene	120-12-7	<0.00000750	0.0000495	0.00000750	mg/L	03.29.2019 12:49	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000495	0.00000626	mg/L	03.29.2019 12:49	U	1
Benzo(a)pyrene	50-32-8	<0.00000950	0.0000495	0.00000946	mg/L	03.29.2019 12:49	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000900	0.0000495	0.00000898	mg/L	03.29.2019 12:49	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000790	0.0000495	0.00000788	mg/L	03.29.2019 12:49	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000770	0.0000495	0.00000772	mg/L	03.29.2019 12:49	U	1
Chrysene	218-01-9	<0.00000870	0.0000495	0.00000872	mg/L	03.29.2019 12:49	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000490	0.0000495	0.00000490	mg/L	03.29.2019 12:49	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000495	0.00000525	mg/L	03.29.2019 12:49	U	1
Fluoranthene	206-44-0	<0.00000890	0.0000495	0.00000888	mg/L	03.29.2019 12:49	U	1
Fluorene	86-73-7	<0.00000540	0.0000495	0.00000540	mg/L	03.29.2019 12:49	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000490	0.0000495	0.00000490	mg/L	03.29.2019 12:49	U	1
Naphthalene	91-20-3	**0.0000284**	0.000495	0.00000446	mg/L	03.29.2019 12:49	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000495	0.00000545	mg/L	03.29.2019 12:49	U	1
Pyrene	129-00-0	<0.00000910	0.0000495	0.00000911	mg/L	03.29.2019 12:49	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	96	41 - 128	%		
2-Fluorobiphenyl	89	55 - 135	%		
Terphenyl-D14	109	54 - 131	%		

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618906

Talon/LPE Co., Amarillo, TX
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Sample Id: **MW17A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-011 Date Collected: 03.23.2019 10:50 Date Received: 03.26.2019 11:30

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	**0.0161**	0.00100	0.000500	mg/L	04.02.2019 20:16		1
Toluene	108-88-3	**0.000540**	0.00100	0.000500	mg/L	04.02.2019 20:16	J	1
Ethylbenzene	100-41-4	**0.00388**	0.00100	0.000500	mg/L	04.02.2019 20:16		1
m,p-Xylenes	179601-23-1	**0.00157**	0.00200	0.00100	mg/L	04.02.2019 20:16	J	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 20:16	U	1
Total Xylenes	1330-20-7	**0.00157**		0.000500	mg/L	04.02.2019 20:16		
Total BTEX		**0.0221**		0.000500	mg/L	04.02.2019 20:16		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	102	75 - 131	%		
1,2-Dichloroethane-D4	99	63 - 144	%		
Toluene-D8	102	80 - 117	%		

Sample Id: **MW8A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-012 Date Collected: 03.23.2019 10:20 Date Received: 03.26.2019 11:30

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	**0.0303**	0.00100	0.000500	mg/L	04.02.2019 20:34		1
Toluene	108-88-3	**0.00174**	0.00100	0.000500	mg/L	04.02.2019 20:34		1
Ethylbenzene	100-41-4	**0.00229**	0.00100	0.000500	mg/L	04.02.2019 20:34		1
m,p-Xylenes	179601-23-1	**0.00119**	0.00200	0.00100	mg/L	04.02.2019 20:34	J	1
o-Xylene	95-47-6	**0.000690**	0.00100	0.000500	mg/L	04.02.2019 20:34	J	1
Total Xylenes	1330-20-7	**0.00188**		0.000500	mg/L	04.02.2019 20:34		
Total BTEX		**0.0362**		0.000500	mg/L	04.02.2019 20:34		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	102	75 - 131	%		
1,2-Dichloroethane-D4	94	63 - 144	%		
Toluene-D8	104	80 - 117	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

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

Lab Sample Id: 618906-013 Date Collected: 03.23.2019 09:35 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:12

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 13:07	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 13:07	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 13:07	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 13:07	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 13:07	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 13:07	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 13:07	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 13:07	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 13:07	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 13:07	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 13:07	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 13:07	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 13:07	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 13:07	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.29.2019 13:07	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 13:07	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 13:07	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	103	41 - 128	%		
2-Fluorobiphenyl	101	55 - 135	%		
Terphenyl-D14	101	54 - 131	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id:	**MW20**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	618906-013	Date Collected:	03.23.2019 09:35	Date Received:	03.26.2019 11:30
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	**0.0614**	0.00100	0.000500	mg/L	04.02.2019 20:52		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 20:52	U	1
Ethylbenzene	100-41-4	**0.00444**	0.00100	0.000500	mg/L	04.02.2019 20:52		1
m,p-Xylenes	179601-23-1	**0.00106**	0.00200	0.00100	mg/L	04.02.2019 20:52	J	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 20:52	U	1
Total Xylenes	1330-20-7	**0.00106**		0.000500	mg/L	04.02.2019 20:52		
Total BTEX		**0.0669**		0.000500	mg/L	04.02.2019 20:52		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	101	75 - 131	%		
1,2-Dichloroethane-D4	100	63 - 144	%		
Toluene-D8	96	80 - 117	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **MW9A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-014 Date Collected: 03.23.2019 13:55 Date Received: 03.26.2019 11:30

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 14:15

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 13:25	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.29.2019 13:25	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.29.2019 13:25	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.29.2019 13:25	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.29.2019 13:25	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.29.2019 13:25	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.29.2019 13:25	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.29.2019 13:25	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.29.2019 13:25	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 13:25	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.29.2019 13:25	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.29.2019 13:25	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.29.2019 13:25	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.29.2019 13:25	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.29.2019 13:25	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.29.2019 13:25	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.29.2019 13:25	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	91	41 - 128	%		
2-Fluorobiphenyl	93	55 - 135	%		
Terphenyl-D14	80	54 - 131	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **MW9A** Matrix: Water Sample Depth:

Lab Sample Id: 618906-014 Date Collected: 03.23.2019 13:55 Date Received: 03.26.2019 11:30

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	**0.0205**	0.00100	0.000500	mg/L	04.02.2019 21:10		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:10	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:10	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	04.02.2019 21:10	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	04.02.2019 21:10	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	04.02.2019 21:10	U	
Total BTEX		**0.0205**		0.000500	mg/L	04.02.2019 21:10		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	96	75 - 131	%		
1,2-Dichloroethane-D4	112	63 - 144	%		
Toluene-D8	96	80 - 117	%		

Certificate of Analytical Results
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

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
618906

Talon/LPE Co., Amarillo, TX
CS Caylor

Sample Id: **7674791-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674791-1-BLK Date Collected: Date Received:

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3084133 Date Prep: 03.30.2019 17:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674791

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.31.2019 07:19	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.31.2019 07:19	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.31.2019 07:19	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.31.2019 07:19	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.31.2019 07:19	U	1

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

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	%		

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: CS Caylor

Work Orders : 618906 **Project ID:** 700376 049 04

Lab Batch #: 3084133 **Sample:** 7674791-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.31.2019 05:28 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0479	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0503	0.0500	101	63-144	
Toluene-D8	0.0516	0.0500	103	80-117	

Lab Batch #: 3084133 **Sample:** 7674791-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.31.2019 05:50 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0487	0.0500	97	75-131	
1,2-Dichloroethane-D4	0.0476	0.0500	95	63-144	
Toluene-D8	0.0514	0.0500	103	80-117	

Lab Batch #: 3084133 **Sample:** 618785-001 S / MS **Batch:** 1 **Matrix:** Storm Water

Units: mg/L **Date Analyzed:** 03.31.2019 06:13 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0473	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0492	0.0500	98	63-144	
Toluene-D8	0.0505	0.0500	101	80-117	

Lab Batch #: 3084133 **Sample:** 7674791-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.31.2019 07:19 **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	0.0500	0.0500	100	63-144	
Toluene-D8	0.0499	0.0500	100	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: CS Caylor

Work Orders : 618906 **Project ID:** 700376 049 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: CS Caylor

Work Orders : 618906 **Project ID:** 700376 049 04

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: CS Caylor

Work Order #: 618906 **Project ID:** 700376 049 04

Analyst: KRP **Date Prepared:** 03.30.2019 **Date Analyzed:** 03.31.2019

Lab Batch ID: 3084133 **Sample:** 7674791-1-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	0.0488	98	0.0500	0.0485	97	1	66-142	20	
Toluene	<0.000500	0.0500	0.0527	105	0.0500	0.0527	105	0	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0530	106	0.0500	0.0526	105	1	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.106	106	0.100	0.105	105	1	75-125	20	
o-Xylene	<0.000500	0.0500	0.0543	109	0.0500	0.0537	107	1	75-125	20	

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	

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: CS Caylor

Work Order #: 618906 **Project ID:** 700376 049 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: CS Caylor

Work Order #: 618906

Lab Batch #: 3084133 **Project ID:** 700376 049 04

Date Analyzed: 03.31.2019 **Date Prepared:** 03.30.2019 **Analyst:** KRP

QC- Sample ID: 618785-001 S **Batch #:** 1 **Matrix:** Storm 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	0.0475	95	66-142	
Toluene	<0.000500	0.0500	0.0508	102	59-139	
Ethylbenzene	<0.000500	0.0500	0.0503	101	75-125	
m,p-Xylenes	<0.00100	0.100	0.102	102	75-125	
o-Xylene	<0.000500	0.0500	0.0518	104	75-125	

Lab Batch #: 3084281

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	

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

Chain of Custody

Work Order No: 6189006

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

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 # 2002-10250
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:	C5 Taylor	Turn Around	
Project Number:	700376 049 04	Routine	☒
P.O. Number:	SRS# 2002-10250	Rush:	
Sampler's Name:	Bill Riggs	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	-1.1 / -1.2	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:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH
MW 10A		3-22-19	120pm			X	
MW 21		3-22-19	310pm			X	
MW 11A		3-23-19	9 AM			X	
MW 18A		3-23-19	825AM			X	X
MW 12A		3-22-19	230pm			X	
MW 13A		3-22-19	325pm			X	
MW 14A		3-23-19	120pm			X	
MW 6A		3-22-19	435pm			X	
MW 15A		3-23-19	1250pm			X	X
MW 16A		3-23-19	1130pm			X	X

Work Order Notes

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

Sample Comments

Email analytical 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

4705 25204679

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Bill Riggs	Brittany Cox	3-25-19 925AM	2 Brittany Cox		3-26-19 1130
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 6189006

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 # 2002-10250
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:	CS Taylor	Turn Around	
Project Number:	700376.049.04	Routine	☒
P.O. Number:	SRS # 2002-10250	Rush:	
Sampler's Name:	Bill Riggs	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	-1.1/-1.2	Thermometer ID		
Received Intact:	(Yes) No	R8		
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
MW17A		3-23-19	1050 AM			X	X
MW8A		3-23-19	1020 AM			X	
MW20		3-23-19	935 AM			X	X
MW9A		3-23-19	1:55 pm			X	X

ANALYSIS REQUEST

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

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. 470525204679

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Bill Riggs	Brittany Cox	3-25-19 925 AM	2 Brittany Cox		3.26.19 1130
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

ORIGIN ID:HOBA (575) 392-7550
**
MAIL SERVICES ETC, LLC
4008 N GRIMES
HOBBS, NM 88240
UNITED STATES US

SHIP DATE: 25MAR19
ACTWGT: 65.00 LB MAN
CAD: 0909328/CAFE3211
DIMS: 22x16x14 IN

BILL RECIPIENT

TO XENCO LABORATORIES
FEDEX EXPRESS SHIP CENTER
FEDEX SHIP CENTER
3600 COUNTY RD 1276 S
MIDLAND TX 79711
(432) 563-1800

REF:
INV:
PO:
DEPT:

FedEx Express

TRK# 4705 2520 4679
0201

TUE - 26 MAR HOLD
PRIORITY OVERNIGHT
HLD
MAFA
LBB
TX-US

41 MAFA

551C1/46D3/104C

Inter-Office Shipment

IOS Number : 125238

Date/Time:	03.26.2019 12:24	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.:	774805641012	E-Mail:	wendy.walfoort@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
618906-001	W	MW10A	03.22.2019 13:20	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/05/19	WEW	BZ BZME EBZ XYLENE	
618906-002	W	MW21	03.22.2019 15:10	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/05/19	WEW	BZ BZME EBZ XYLENE	
618906-003	W	MW11A	03.23.2019 09:00	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-004	W	MW18A	03.23.2019 08:25	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 08:25**	WEW	ACNP ACNPY ANTH BZ	
618906-004	W	MW18A	03.23.2019 08:25	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-005	W	MW12A	03.22.2019 14:30	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/05/19	WEW	BZ BZME EBZ XYLENE	
618906-006	W	MW13A	03.22.2019 15:25	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/05/19	WEW	BZ BZME EBZ XYLENE	
618906-007	W	MW14A	03.23.2019 13:20	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-008	W	MW6A	03.22.2019 16:35	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/05/19	WEW	BZ BZME EBZ XYLENE	
618906-009	W	MW15A	03.23.2019 12:50	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 12:50**	WEW	ACNP ACNPY ANTH BZ	
618906-009	W	MW15A	03.23.2019 12:50	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-010	W	MW16A	03.23.2019 11:30	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-010	W	MW16A	03.23.2019 11:30	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 11:30**	WEW	ACNP ACNPY ANTH BZ	
618906-011	W	MW17A	03.23.2019 10:50	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-011	W	MW17A	03.23.2019 10:50	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 10:50**	WEW	ACNP ACNPY ANTH BZ	
618906-012	W	MW8A	03.23.2019 10:20	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-013	W	MW20	03.23.2019 09:35	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-013	W	MW20	03.23.2019 09:35	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 09:35**	WEW	ACNP ACNPY ANTH BZ	
618906-014	W	MW9A	03.23.2019 13:55	SW8260BTX	BTEX by SW 8260B	04.01.2019	04/06/19	WEW	BZ BZME EBZ XYLENE	
618906-014	W	MW9A	03.23.2019 13:55	SIM_PAH_D	PAHs by 8270D SIM	04.01.2019	**03/30/19 13:55**	WEW	ACNP ACNPY ANTH BZ	

Inter-Office Shipment

IOS Number : 125238

Date/Time:	03.26.2019 12:24	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.:	774805641012	E-Mail:	wendy.walfoort@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: 
Katie Lowe

Date Relinquished: 03.26.2019

Received By: 
Monica Shakhshir

Date Received: 03.27.2019 09:05

Cooler Temperature: 3.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 125238

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:** 03/26/2019 12:24 PM

Received By: Monica Shakhshir **Date Received:** 03/27/2019 09:05 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.4	
#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: 03/27/2019
Monica Shakhshir

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon/LPE Co.

Date/ Time Received: 03/26/2019 11:30:00 AM

Work Order #: 618906

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)?	-1.2	
#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: 03/26/2019

Checklist reviewed by: Wendy Walfoort Date: 03/26/2019

Wendy Walfoort

Analytical Report 628321

for

Talon LPE-Artesia

Project Manager: David Adkins

C.S.Caylor

700376.049.04

27-JUN-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

27-JUN-19

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

Reference: XENCO Report No(s): **628321**
C.S.Caylor
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) 628321. 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. 628321 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 628321

Talon LPE-Artesia, Artesia, NM

C.S.Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-10A	W	06-17-19 11:00		628321-001
MW-8A	W	06-17-19 11:10		628321-002
MW-17A	W	06-17-19 11:35		628321-003
MW-21	W	06-17-19 11:45		628321-004
MW-16A	W	06-17-19 12:15		628321-005
MW-18A	W	06-17-19 12:50		628321-006
MW-12A	W	06-17-19 14:40		628321-007
MW-14A	W	06-17-19 15:20		628321-008
MW-20	W	06-18-19 10:50		628321-009
MW-9A	W	06-18-19 11:40		628321-010
MW-15A	W	06-18-19 12:20		628321-011
MW-6A	W	06-18-19 13:40		628321-012
MW-13A	W	06-18-19 15:15		628321-013

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
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

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

Lab Sample Id: 628321-001 Date Collected: 06.17.19 11.00 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 16:58	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 16:58	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 16:58	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 16:58	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 16:58	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 16:58	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 16:58	U	

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

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

Lab Sample Id: 628321-002 Date Collected: 06.17.19 11.10 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0259**	0.00100	0.000480	mg/L	06.26.19 17:25		1
Toluene	108-88-3	**0.00410**	0.00100	0.000512	mg/L	06.26.19 17:25		1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 17:25	U	1
m_p-Xylenes	179601-23-1	**0.00270**	0.00200	0.000454	mg/L	06.26.19 17:25		1
o-Xylene	95-47-6	**0.00180**	0.00100	0.000270	mg/L	06.26.19 17:25		1
Xylenes, Total	1330-20-7	**0.00450**		0.000270	mg/L	06.26.19 17:25		
Total BTEX		**0.0345**		0.000270	mg/L	06.26.19 17:25		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	85	66 - 120	%		
4-Bromofluorobenzene	89	67 - 120	%		

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

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

Lab Sample Id: 628321-003 Date Collected: 06.17.19 11.35 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 17:52	U	1
Toluene	108-88-3	**0.00170**	0.00100	0.000512	mg/L	06.26.19 17:52		1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 17:52	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 17:52	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 17:52	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 17:52	U	
Total BTEX		**0.00170**		0.000270	mg/L	06.26.19 17:52		

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

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

Lab Sample Id: 628321-004 Date Collected: 06.17.19 11.45 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 18:19	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 18:19	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 18:19	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 18:19	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 18:19	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 18:19	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 18:19	U	

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

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

Sample Id: **MW-16A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628321-005 Date Collected: 06.17.19 12.15 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 18:46	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 18:46	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 18:46	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 18:46	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 18:46	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 18:46	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 18:46	U	

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

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

Lab Sample Id: 628321-006 Date Collected: 06.17.19 12.50 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 20:33	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 20:33	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 20:33	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 20:33	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 20:33	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 20:33	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 20:33	U	

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

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

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

Lab Sample Id: 628321-007 Date Collected: 06.17.19 14.40 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**19.2**	0.0500	0.0240	mg/L	06.26.19 21:00		50
Toluene	108-88-3	**0.115**	0.0500	0.0256	mg/L	06.26.19 21:00		50
Ethylbenzene	100-41-4	**0.815**	0.0500	0.0308	mg/L	06.26.19 21:00		50
m_p-Xylenes	179601-23-1	**0.510**	0.100	0.0227	mg/L	06.26.19 21:00		50
o-Xylene	95-47-6	**0.205**	0.0500	0.0135	mg/L	06.26.19 21:00		50
Xylenes, Total	1330-20-7	**0.715**		0.0135	mg/L	06.26.19 21:00		
Total BTEX		**20.8**		0.0135	mg/L	06.26.19 21:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	105	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Sample Id: **MW-14A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628321-008 Date Collected: 06.17.19 15.20 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0392**	0.00100	0.000480	mg/L	06.26.19 21:27		1
Toluene	108-88-3	**0.00340**	0.00100	0.000512	mg/L	06.26.19 21:27		1
Ethylbenzene	100-41-4	**0.00150**	0.00100	0.000616	mg/L	06.26.19 21:27		1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 21:27	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 21:27	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 21:27	U	
Total BTEX		**0.0441**		0.000270	mg/L	06.26.19 21:27		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	88	66 - 120	%		
4-Bromofluorobenzene	92	67 - 120	%		

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

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

Lab Sample Id: 628321-009 Date Collected: 06.18.19 10.50 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0968**	0.00100	0.000480	mg/L	06.26.19 21:54		1
Toluene	108-88-3	**0.00160**	0.00100	0.000512	mg/L	06.26.19 21:54		1
Ethylbenzene	100-41-4	**0.000900**	0.00100	0.000616	mg/L	06.26.19 21:54	J	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 21:54	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 21:54	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 21:54	U	
Total BTEX		**0.0993**		0.000270	mg/L	06.26.19 21:54		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	84	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

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

Lab Sample Id: 628321-010 Date Collected: 06.18.19 11.40 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0322**	0.00100	0.000480	mg/L	06.26.19 22:20		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 22:20	U	1
Ethylbenzene	100-41-4	**0.00200**	0.00100	0.000616	mg/L	06.26.19 22:20		1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 22:20	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 22:20	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 22:20	U	
Total BTEX		**0.0342**		0.000270	mg/L	06.26.19 22:20		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	87	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

Sample Id: **MW-15A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 628321-011 Date Collected: 06.18.19 12.20 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00450**	0.00100	0.000480	mg/L	06.26.19 22:47		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 22:47	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 22:47	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 22:47	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 22:47	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 22:47	U	
Total BTEX		**0.00450**		0.000270	mg/L	06.26.19 22:47		

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

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

Lab Sample Id: 628321-012 Date Collected: 06.18.19 13.40 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00490**	0.00100	0.000480	mg/L	06.26.19 23:14		1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 23:14	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 23:14	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 23:14	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 23:14	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 23:14	U	
Total BTEX		**0.00490**		0.000270	mg/L	06.26.19 23:14		

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

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

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

Lab Sample Id: 628321-013 Date Collected: 06.18.19 15.15 Date Received: 06.19.19 08.30

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 23:41	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 23:41	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 23:41	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 23:41	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 23:41	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 23:41	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 23:41	U	

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

Certificate of Analytical Results
628321
Talon LPE-Artesia, Artesia, NM
C.S.Caylor

Sample Id: **7680748-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7680748-1-BLK Date Collected: Date Received:

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

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3093701 Date Prep: 06.25.19 12.00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7680748

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	06.26.19 12:55	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	06.26.19 12:55	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	06.26.19 12:55	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	06.26.19 12:55	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	06.26.19 12:55	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	06.26.19 12:55	U	
Total BTEX		<0.000270		0.000270	mg/L	06.26.19 12:55	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	96	66 - 120	%		
4-Bromofluorobenzene	95	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: C.S.Caylor

Work Orders : 628321,

Project ID: 700376.049.04

Lab Batch #: 3093701 **Sample:** 7680748-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/26/19 11:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0894	0.100	89	66-120	
4-Bromofluorobenzene	0.0961	0.100	96	67-120	

Lab Batch #: 3093701 **Sample:** 7680748-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/26/19 11:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0914	0.100	91	66-120	
4-Bromofluorobenzene	0.0931	0.100	93	67-120	

Lab Batch #: 3093701 **Sample:** 7680748-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/26/19 12:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0956	0.100	96	66-120	
4-Bromofluorobenzene	0.0953	0.100	95	67-120	

Lab Batch #: 3093701 **Sample:** 628224-003 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/26/19 13:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0881	0.100	88	66-120	
4-Bromofluorobenzene	0.0951	0.100	95	67-120	

Lab Batch #: 3093701 **Sample:** 628224-003 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/26/19 14:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0882	0.100	88	66-120	
4-Bromofluorobenzene	0.0929	0.100	93	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.

BS / BSD Recoveries

Project Name: C.S.Caylor

Work Order #: 628321 **Project ID:** 700376.049.04

Analyst: MIT **Date Prepared:** 06/25/2019 **Date Analyzed:** 06/26/2019

Lab Batch ID: 3093701 **Sample:** 7680748-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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	0.104	104	0.100	0.103	103	1	74-120	20	
Toluene	<0.000512	0.100	0.101	101	0.100	0.0971	97	4	74-120	20	
Ethylbenzene	<0.000616	0.100	0.101	101	0.100	0.0980	98	3	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.202	101	0.200	0.196	98	3	73-120	25	
o-Xylene	<0.000270	0.100	0.101	101	0.100	0.0982	98	3	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: C.S.Caylor

Work Order # : 628321 **Project ID:** 700376.049.04

Lab Batch ID: 3093701 **QC- Sample ID:** 628224-003 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 06/26/2019 **Date Prepared:** 06/25/2019 **Analyst:** MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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	0.105	105	0.100	0.104	104	1	15-147	25	
Toluene	<0.000512	0.100	0.0980	98	0.100	0.0983	98	0	11-147	25	
Ethylbenzene	<0.000616	0.100	0.0999	100	0.100	0.0997	100	0	10-149	25	
m_p-Xylenes	<0.000454	0.200	0.199	100	0.200	0.199	100	0	62-124	25	
o-Xylene	<0.000270	0.100	0.101	101	0.100	0.100	100	1	62-124	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

Work Order No: 628321

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

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:	C.S. CAYLOR	Turn Around	
Project Number:	700376.049.04	Routine	☒
P.O. Number:	SRS # 2002-10250	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.8	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	(Yes) No N/A	Total Containers:	39	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	Work Order Notes / Sample Comments
MW-10A	GW	6-17-19	11:00am	N/A	3	X	EMAIL ANALYTICALS TO CAMILLE BRYANT
MW-8A		6-17-19	11:10am				
MW-17A			11:35am				
MW-21			11:45am				
MW-16A			12:15pm				
MW-18A			12:50pm				
MW-12A			2:40pm				
MW-14A		6-17-19	3:20pm				
MW-20		6-18-19	10:50am				
MW-9A		6-18-19	11:40am	N/A			

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/19/19 08:30	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 628321

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:	C.S. CAYLOR	Turn Around	
Project Number:	700376.049.04	Routine	☒
P.O. Number:	SRS # 2002-10250	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

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:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	Sample Comments
MW-15A	GW	6-18-19	12:20	N/A	3	X	EMAIL ANALYTICALS
MW-6A	"	"	1:40	"		"	TO
MW-13A	"	"	3:15	"		"	CAMILLE BRYANT
				N/A			

ANALYSIS REQUEST

Work Order Notes

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		06/19/19 08:30	2		
3			4		
5			6		

Inter-Office Shipment

IOS Number **41772**

Date/Time: 06/24/19 16:29
Lab# From: **Carlsbad**
Lab# To: **Lubbock**

Created by: Jessica Kramer
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
628321-001	W	MW-10A	06/17/19 11:00	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 11:00	JKR	BR4FBZ BZ BZME EBZ T	
628321-002	W	MW-8A	06/17/19 11:10	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 11:10	JKR	BR4FBZ BZ BZME EBZ T	
628321-003	W	MW-17A	06/17/19 11:35	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 11:35	JKR	BR4FBZ BZ BZME EBZ T	
628321-004	W	MW-21	06/17/19 11:45	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 11:45	JKR	BR4FBZ BZ BZME EBZ T	
628321-005	W	MW-16A	06/17/19 12:15	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 12:15	JKR	BR4FBZ BZ BZME EBZ T	
628321-006	W	MW-18A	06/17/19 12:50	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 12:50	JKR	BR4FBZ BZ BZME EBZ T	
628321-007	W	MW-12A	06/17/19 14:40	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 14:40	JKR	BR4FBZ BZ BZME EBZ T	
628321-008	W	MW-14A	06/17/19 15:20	SW8021B	BTEX by EPA 8021B	06/25/19	07/01/19 15:20	JKR	BR4FBZ BZ BZME EBZ T	
628321-009	W	MW-20	06/18/19 10:50	SW8021B	BTEX by EPA 8021B	06/25/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ T	
628321-010	W	MW-9A	06/18/19 11:40	SW8021B	BTEX by EPA 8021B	06/25/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ T	
628321-011	W	MW-15A	06/18/19 12:20	SW8021B	BTEX by EPA 8021B	06/25/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ T	
628321-012	W	MW-6A	06/18/19 13:40	SW8021B	BTEX by EPA 8021B	06/25/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ T	
628321-013	W	MW-13A	06/18/19 15:15	SW8021B	BTEX by EPA 8021B	06/25/19	07/02/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: Jessica Kramer
Jessica Kramer

Date Relinquished: 06/24/2019

Received By: _____

Date Received: _____

Cooler Temperature: _____

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 06/19/2019 08:30:00 AM

Work Order #: 628321

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)?	1.8	
#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**	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: Martha Castro Date: 06/19/2019

Checklist reviewed by: Jessica Kramer Date: 06/19/2019

Jessica Kramer

Certificate of Analysis Summary 637513

Talon LPE-Artesia, Artesia, NM

Project Name: C.S. Caylor

Project Id: 700376-049-04
Contact: David Adkins
Project Location:

Date Received in Lab: Fri Sep-20-19 08:53 am
Report Date: 27-SEP-19
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	637513-001		637513-002		637513-003		637513-004		637513-005		637513-006	
	Field Id:	MW-10A		MW-9A		MW-13A		MW-14A		MW-6A		MW-11A	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Sep-18-19 13:20		Sep-18-19 14:20		Sep-19-19 11:30		Sep-19-19 12:05		Sep-19-19 13:30		Sep-19-19 13:50	
BTEX by EPA 8021B SUB: T104704400-18-18	*Extracted:*	Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00	
	Analyzed:	Sep-24-19 11:24		Sep-24-19 11:45		Sep-25-19 12:05		Sep-25-19 12:25		Sep-25-19 12:45		Sep-25-19 02:04	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		<0.00200	0.00200	0.276 D	0.0500	<0.00200	0.00200	<0.00200	0.00200	0.00329	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	0.00849	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m_p-Xylenes		<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Xylenes, Total		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	0.284	0.00200	<0.00200	0.00200	<0.00200	0.00200	0.00329	0.00200	<0.00200	0.00200

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 637513

Talon LPE-Artesia, Artesia, NM

Project Name: C.S. Caylor

Project Id: 700376-049-04
Contact: David Adkins
Project Location:

Date Received in Lab: Fri Sep-20-19 08:53 am
Report Date: 27-SEP-19
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	637513-007		637513-008		637513-009		637513-010		637513-011		637513-012	
	Field Id:	MW-8A		MW-21		MW-17A		MW-18A		MW-16A		MW-15A	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Sep-19-19 14:10		Sep-19-19 14:30		Sep-19-19 15:15		Sep-19-19 15:30		Sep-19-19 15:45		Sep-19-19 16:20	
BTEX by EPA 8021B SUB: T104704400-18-18	*Extracted:*	Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00		Sep-24-19 11:00	
	Analyzed:	Sep-25-19 02:24		Sep-25-19 02:44		Sep-25-19 03:04		Sep-25-19 03:24		Sep-25-19 03:44		Sep-25-19 04:04	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		0.0519	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		0.00919	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m_p-Xylenes		0.00491	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Xylenes, Total		0.00491	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		0.0660	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 637513

Talon LPE-Artesia, Artesia, NM

Project Name: C.S. Caylor

Project Id: 700376-049-04
Contact: David Adkins
Project Location:

Date Received in Lab: Fri Sep-20-19 08:53 am
Report Date: 27-SEP-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	637513-013					
	Field Id:	MW-20					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	Sep-19-19 16:50					
BTEX by EPA 8021B **SUB: T104704400-18-18**	***Extracted:***	Sep-24-19 11:00					
	Analyzed:	Sep-25-19 04:25					
	Units/RL:	mg/L	RL				
Benzene		0.353 D	0.100				
Toluene		0.00435	0.00200				
Ethylbenzene		0.0283	0.00200				
m_p-Xylenes		<0.00400	0.00400				
o-Xylene		<0.00200	0.00200				
Xylenes, Total		<0.00200	0.00200				
Total BTEX		0.386	0.00200				

Jessica Kramer
Project Assistant

Analytical Report 637513

for

Talon LPE-Artesia

Project Manager: David Adkins

C.S. Caylor

700376-049-04

27-SEP-19

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 (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-21), 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)

27-SEP-19

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

Reference: XENCO Report No(s): **637513**
C.S. Caylor
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) 637513. 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. 637513 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 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-10A	W	09-18-19 13:20		637513-001
MW-9A	W	09-18-19 14:20		637513-002
MW-13A	W	09-19-19 11:30		637513-003
MW-14A	W	09-19-19 12:05		637513-004
MW-6A	W	09-19-19 13:30		637513-005
MW-11A	W	09-19-19 13:50		637513-006
MW-8A	W	09-19-19 14:10		637513-007
MW-21	W	09-19-19 14:30		637513-008
MW-17A	W	09-19-19 15:15		637513-009
MW-18A	W	09-19-19 15:30		637513-010
MW-16A	W	09-19-19 15:45		637513-011
MW-15A	W	09-19-19 16:20		637513-012
MW-20	W	09-19-19 16:50		637513-013

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3102356 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7686788-1-BLK,637513-001 S,637513-001 SD,637513-004,637513-013,637513-006,637513-007,637513-008,637513-009,637513-010,637513-011,637513-012,637513-003,637513-002,637513-001,637513-005.

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-10A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-001	Date Collected:	09.18.19 13.20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.24.19 11.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.24.19 11.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.24.19 11.24	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.24.19 11.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.24.19 11.24	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.24.19 11.24	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.24.19 11.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.24.19 11.24	
4-Bromofluorobenzene	460-00-4	135	%	70-130	09.24.19 11.24	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-9A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-002	Date Collected:	09.18.19 14.20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.276**	0.0500	mg/L	09.26.19 06.30	D	25
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.24.19 11.45	U	1
Ethylbenzene	100-41-4	**0.00849**	0.00200	mg/L	09.24.19 11.45		1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.24.19 11.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.24.19 11.45	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.24.19 11.45	U	1
Total BTEX		**0.284**	0.00200	mg/L	09.26.19 06.30		25

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.24.19 11.45	
4-Bromofluorobenzene	460-00-4	133	%	70-130	09.24.19 11.45	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-13A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-003	Date Collected:	09.19.19 11.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 12.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 12.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 12.05	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 12.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 12.05	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 12.05	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 12.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.25.19 12.05	
4-Bromofluorobenzene	460-00-4	139	%	70-130	09.25.19 12.05	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-14A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-004	Date Collected:	09.19.19 12.05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 12.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 12.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 12.25	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 12.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 12.25	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 12.25	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 12.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	09.25.19 12.25	
4-Bromofluorobenzene	460-00-4	135	%	70-130	09.25.19 12.25	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-6A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-005	Date Collected:	09.19.19 13.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00329**	0.00200	mg/L	09.25.19 12.45		1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 12.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 12.45	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 12.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 12.45	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 12.45	U	1
Total BTEX		**0.00329**	0.00200	mg/L	09.25.19 12.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.25.19 12.45	
4-Bromofluorobenzene	460-00-4	140	%	70-130	09.25.19 12.45	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-11A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-006	Date Collected:	09.19.19 13.50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 02.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 02.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 02.04	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 02.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 02.04	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 02.04	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 02.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	09.25.19 02.04	
4-Bromofluorobenzene	460-00-4	131	%	70-130	09.25.19 02.04	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-8A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-007	Date Collected:	09.19.19 14.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0519**	0.00200	mg/L	09.25.19 02.24		1
Toluene	108-88-3	**0.00919**	0.00200	mg/L	09.25.19 02.24		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 02.24	U	1
m_p-Xylenes	179601-23-1	**0.00491**	0.00400	mg/L	09.25.19 02.24		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 02.24	U	1
Xylenes, Total	1330-20-7	**0.00491**	0.00200	mg/L	09.25.19 02.24		1
Total BTEX		**0.0660**	0.00200	mg/L	09.25.19 02.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.25.19 02.24	
4-Bromofluorobenzene	460-00-4	135	%	70-130	09.25.19 02.24	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-21**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-008	Date Collected:	09.19.19 14.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 02.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 02.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 02.44	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 02.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 02.44	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 02.44	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 02.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	09.25.19 02.44	
4-Bromofluorobenzene	460-00-4	140	%	70-130	09.25.19 02.44	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-17A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-009	Date Collected:	09.19.19 15.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 03.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 03.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 03.04	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 03.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 03.04	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 03.04	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 03.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.25.19 03.04	
4-Bromofluorobenzene	460-00-4	140	%	70-130	09.25.19 03.04	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-18A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-010	Date Collected:	09.19.19 15.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 03.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 03.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 03.24	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 03.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 03.24	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 03.24	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 03.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	09.25.19 03.24	
4-Bromofluorobenzene	460-00-4	134	%	70-130	09.25.19 03.24	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-16A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-011	Date Collected:	09.19.19 15.45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 03.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 03.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 03.44	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 03.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 03.44	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 03.44	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 03.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.25.19 03.44	
4-Bromofluorobenzene	460-00-4	133	%	70-130	09.25.19 03.44	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-15A**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-012	Date Collected:	09.19.19 16.20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	09.25.19 04.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/L	09.25.19 04.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	09.25.19 04.04	U	1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 04.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 04.04	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 04.04	U	1
Total BTEX		<0.00200	0.00200	mg/L	09.25.19 04.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	09.25.19 04.04	
4-Bromofluorobenzene	460-00-4	133	%	70-130	09.25.19 04.04	**

Certificate of Analytical Results 637513

Talon LPE-Artesia, Artesia, NM

C.S. Caylor

Sample Id:	**MW-20**	Matrix:	Ground Water	Date Received:	09.20.19 08.53
Lab Sample Id:	637513-013	Date Collected:	09.19.19 16.50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.24.19 11.00		
Seq Number:	3102356			SUB:	T104704400-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.353**	0.100	mg/L	09.26.19 06.51	D	50
Toluene	108-88-3	**0.00435**	0.00200	mg/L	09.25.19 04.25		1
Ethylbenzene	100-41-4	**0.0283**	0.00200	mg/L	09.25.19 04.25		1
m_p-Xylenes	179601-23-1	<0.00400	0.00400	mg/L	09.25.19 04.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	09.25.19 04.25	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/L	09.25.19 04.25	U	1
Total BTEX		**0.386**	0.00200	mg/L	09.26.19 06.51		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.25.19 04.25	
4-Bromofluorobenzene	460-00-4	134	%	70-130	09.25.19 04.25	**

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

QC Summary 637513

Talon LPE-Artesia

C.S. Caylor

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3102356 Matrix: Water Date Prep: 09.24.19

MB Sample Id: 7686788-1-BLK LCS Sample Id: 7686788-1-BKS LCSD Sample Id: 7686788-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0998	100	0.101	101	70-130	1	25	mg/L	09.24.19 07:44	
Toluene	<0.00200	0.100	0.0965	97	0.0986	99	70-130	2	25	mg/L	09.24.19 07:44	
Ethylbenzene	<0.00200	0.100	0.114	114	0.115	115	70-130	1	25	mg/L	09.24.19 07:44	
m_p-Xylenes	<0.00400	0.200	0.238	119	0.241	121	70-130	1	25	mg/L	09.24.19 07:44	
o-Xylene	<0.00200	0.100	0.113	113	0.118	118	70-130	4	25	mg/L	09.24.19 07:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		89		91		70-130	%	09.24.19 07:44
4-Bromofluorobenzene	140	**	126		130		70-130	%	09.24.19 07:44

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3102356 Matrix: Ground Water Date Prep: 09.24.19

Parent Sample Id: 637513-001 MS Sample Id: 637513-001 S MSD Sample Id: 637513-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.0981	98	70-130	9	25	mg/L	09.24.19 08:24	
Toluene	<0.00200	0.100	0.104	104	0.0953	95	70-130	9	25	mg/L	09.24.19 08:24	
Ethylbenzene	<0.00200	0.100	0.124	124	0.110	110	70-130	12	25	mg/L	09.24.19 08:24	
m_p-Xylenes	<0.00400	0.200	0.259	130	0.230	115	70-130	12	25	mg/L	09.24.19 08:24	
o-Xylene	<0.00200	0.100	0.127	127	0.114	114	70-130	11	25	mg/L	09.24.19 08:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		90		70-130	%	09.24.19 08:24
4-Bromofluorobenzene	142	**	135	**	70-130	%	09.24.19 08:24

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Chain of Custody

Work Order No: 637513

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:	
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:	C.S. CAYLOR	Turn Around	
Project Number:	700 376.049.04	Routine	☒
P.O. Number:	2002-10250	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.2	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	13

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	Sample Comments
MW-10A	GW	9/18/19	1:20pm	N/A	3	V	EMAIL ANALYTICALS
MW-9A		9/18/19	2:10pm				TO
MW-13A		9/19/19	11:30am				CAMILLE BRYANT
MW-14A			12:05pm				
MW-6A			1:30pm				
MW-11A			1:50pm				
MW-8A			2:10pm				
MW-21			2:30pm				
MW-17A			3:15pm				
MW-18A	↓	↓	3:30pm		↓	↓	

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/20/19 08:53	2		
3			4		
5			6		

Chain of Custody

Work Order No: 637913

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 ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	C. S. CAYLOR	Turn Around	
Project Number:	700 376.049.04	Routine	☒
P.O. Number:	2002-10250	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.2	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:	3	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH
MW-16A	GW	9/19/19	3:45pm	N/A	3	✓	
MW-15A	↓	↓	4:20pm		↓	↓	
MW-20	↓	↓	4:50pm		↓	↓	

ANALYSIS REQUEST

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		9/20/19 0853	2		
3			4		
5			6		

Inter-Office Shipment

IOS Number **48552**

Date/Time: 09/20/19 13:41
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
637513-001	W	MW-10A	09/18/19 13:20	SW8021B	BTEX by EPA 8021B	09/26/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-002	W	MW-9A	09/18/19 14:20	SW8021B	BTEX by EPA 8021B	09/26/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-003	W	MW-13A	09/19/19 11:30	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-004	W	MW-14A	09/19/19 12:05	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-005	W	MW-6A	09/19/19 13:30	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-006	W	MW-11A	09/19/19 13:50	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-007	W	MW-8A	09/19/19 14:10	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-008	W	MW-21	09/19/19 14:30	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-009	W	MW-17A	09/19/19 15:15	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-010	W	MW-18A	09/19/19 15:30	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-011	W	MW-16A	09/19/19 15:45	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-012	W	MW-15A	09/19/19 16:20	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	
637513-013	W	MW-20	09/19/19 16:50	SW8021B	BTEX by EPA 8021B	09/26/19	10/03/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 09/20/2019

Received By: 
Jessica Kramer

Date Received: 09/21/2019 00:00

Cooler Temperature: 2.1

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48552

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

Sent By: Elizabeth McClellan **Date Sent:** 09/20/2019 01:41 PM

Received By: Jessica Kramer **Date Received:** 09/21/2019 12:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.1	
#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?	**Yes**	
#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: Jessica Kramer Date: 09/21/2019

Jessica Kramer

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09/20/2019 08:53:00 AM

Work Order #: 637513

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)?	.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**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	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: 09/23/2019

Checklist reviewed by: Jessica Kramer Date: 09/23/2019

Jessica Kramer

Analytical Report 645975

for

Talon LPE-Artesia

Project Manager: David Adkins

CS Caylor

700376 049 04

12.16.2019

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)

12.16.2019

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

Reference: XENCO Report No(s): **645975**
CS Caylor
Project Address: Lovington, New Mexico

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) 645975. 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. 645975 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 645975

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW 9A	W	12.10.2019 09:10		645975-001
MW 20	W	12.10.2019 09:45		645975-002
MW 8A	W	12.10.2019 10:50		645975-003
MW 17A	W	12.10.2019 11:24		645975-004
MW 16A	W	12.10.2019 13:08		645975-005
MW 15A	W	12.10.2019 13:40		645975-006
MW 6A	W	12.10.2019 14:26		645975-007
MW 14A	W	12.10.2019 15:05		645975-008
MW 13A	W	12.11.2019 10:15		645975-009
MW 18A	W	12.11.2019 10:44		645975-010
MW 11A	W	12.11.2019 11:15		645975-011
MW 21	W	12.11.2019 11:40		645975-012
MW 10A	W	12.11.2019 09:20		645975-013

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: CS Caylor

Project ID: *700376 049 04*
Work Order Number(s): *645975*

Report Date: *12.16.2019*
Date Received: *12.11.2019*

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

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645975
Talon LPE-Artesia, Artesia, NM
CS Caylor

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

Lab Sample Id: 645975-001 Date Collected: 12.10.2019 09:10 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00517**	0.00200	0.000408	mg/L	12.14.2019 03:25		1
Toluene	108-88-3	**0.000540**	0.00200	0.000367	mg/L	12.14.2019 03:25	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 03:25	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 03:25	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 03:25	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 03:25	U	
Total BTEX		**0.00571**		0.000367	mg/L	12.14.2019 03:25		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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

Lab Sample Id: 645975-002 Date Collected: 12.10.2019 09:45 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.102**	0.00200	0.000408	mg/L	12.14.2019 03:45		1
Toluene	108-88-3	**0.000650**	0.00200	0.000367	mg/L	12.14.2019 03:45	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 03:45	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 03:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 03:45	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 03:45	U	
Total BTEX		**0.103**		0.000367	mg/L	12.14.2019 03:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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645975
Talon LPE-Artesia, Artesia, NM
CS Caylor

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

Lab Sample Id: 645975-003 Date Collected: 12.10.2019 10:50 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00226**	0.00200	0.000408	mg/L	12.14.2019 04:05		1
Toluene	108-88-3	**0.000380**	0.00200	0.000367	mg/L	12.14.2019 04:05	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 04:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 04:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 04:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 04:05	U	
Total BTEX		**0.00264**		0.000367	mg/L	12.14.2019 04:05		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		

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

Lab Sample Id: 645975-004 Date Collected: 12.10.2019 11:24 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000680**	0.00200	0.000408	mg/L	12.14.2019 04:25	J	1
Toluene	108-88-3	**0.000530**	0.00200	0.000367	mg/L	12.14.2019 04:25	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 04:25	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 04:25	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 04:25	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 04:25	U	
Total BTEX		**0.00121**		0.000367	mg/L	12.14.2019 04:25	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		

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645975
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Sample Id: **MW 16A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 645975-005 Date Collected: 12.10.2019 13:08 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00227**	0.00200	0.000408	mg/L	12.14.2019 04:45		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 04:45	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 04:45	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 04:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 04:45	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 04:45	U	
Total BTEX		**0.00227**		0.000367	mg/L	12.14.2019 04:45		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

Sample Id: **MW 15A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 645975-006 Date Collected: 12.10.2019 13:40 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000930**	0.00200	0.000408	mg/L	12.14.2019 05:05	J	1
Toluene	108-88-3	**0.000380**	0.00200	0.000367	mg/L	12.14.2019 05:05	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 05:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 05:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 05:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 05:05	U	
Total BTEX		**0.00131**		0.000367	mg/L	12.14.2019 05:05	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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645975
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Sample Id: **MW 6A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 645975-007 Date Collected: 12.10.2019 14:26 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000620**	0.00200	0.000408	mg/L	12.14.2019 05:26	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 05:26	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 05:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 05:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 05:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 05:26	U	
Total BTEX		**0.000620**		0.000367	mg/L	12.14.2019 05:26	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		

Sample Id: **MW 14A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 645975-008 Date Collected: 12.10.2019 15:05 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.14.2019 05:46	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 05:46	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 05:46	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 05:46	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 05:46	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 05:46	U	
Total BTEX		<0.000367		0.000367	mg/L	12.14.2019 05:46	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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645975
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Sample Id: **MW 13A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 645975-009 Date Collected: 12.11.2019 10:15 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.14.2019 06:06	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 06:06	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 06:06	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 06:06	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 06:06	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 06:06	U	
Total BTEX		<0.000367		0.000367	mg/L	12.14.2019 06:06	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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

Lab Sample Id: 645975-010 Date Collected: 12.11.2019 10:44 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00116**	0.00200	0.000408	mg/L	12.14.2019 06:26	J	1
Toluene	108-88-3	**0.000370**	0.00200	0.000367	mg/L	12.14.2019 06:26	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 06:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 06:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 06:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 06:26	U	
Total BTEX		**0.00153**		0.000367	mg/L	12.14.2019 06:26	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

Certificate of Analytical Results
645975
Talon LPE-Artesia, Artesia, NM
CS Caylor

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

Lab Sample Id: 645975-011 Date Collected: 12.11.2019 11:15 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.14.2019 07:45	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 07:45	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 07:45	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 07:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 07:45	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 07:45	U	
Total BTEX		<0.000367		0.000367	mg/L	12.14.2019 07:45	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	88	70 - 130	%		
4-Bromofluorobenzene	98	70 - 130	%		

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

Lab Sample Id: 645975-012 Date Collected: 12.11.2019 11:40 Date Received: 12.11.2019 14:59

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110541 Date Prep: 12.13.2019 15:15

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692420

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000890**	0.00200	0.000408	mg/L	12.14.2019 08:05	J	1
Toluene	108-88-3	**0.000500**	0.00200	0.000367	mg/L	12.14.2019 08:05	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 08:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 08:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 08:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 08:05	U	
Total BTEX		**0.00139**		0.000367	mg/L	12.14.2019 08:05	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	89	70 - 130	%		
4-Bromofluorobenzene	99	70 - 130	%		

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645975

Talon LPE-Artesia, Artesia, NM

CS Caylor

Sample Id:	**MW 10A**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	645975-013	Date Collected:	12.11.2019 09:20	Date Received:	12.11.2019 14:59
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3110541	Date Prep:	12.13.2019 15:15		
Subcontractor:	SUB: T104704400-19-19	Prep seq:	7692420		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000550**	0.00200	0.000408	mg/L	12.14.2019 08:25	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 08:25	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 08:25	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 08:25	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 08:25	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.14.2019 08:25	U	
Total BTEX		**0.000550**		0.000367	mg/L	12.14.2019 08:25	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

Certificate of Analytical Results
645975

Talon LPE-Artesia, Artesia, NM
CS Caylor

Sample Id:	**7692420-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7692420-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3110541	Date Prep:	12.13.2019 15:15		
Subcontractor:	SUB: T104704400-19-19	Prep seq:	7692420		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.14.2019 03:05	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.14.2019 03:05	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.14.2019 03:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.14.2019 03:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.14.2019 03:05	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	89	70 - 130	%		
4-Bromofluorobenzene	98	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: CS Caylor

Work Orders : 645975 **Project ID:** 700376 049 04

Lab Batch #: 3110541 **Sample:** 7692420-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.14.2019 01:25 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0312	0.0300	104	70-130	

Lab Batch #: 3110541 **Sample:** 7692420-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.14.2019 01:45 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0327	0.0300	109	70-130	

Lab Batch #: 3110541 **Sample:** 645975-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.14.2019 02:05 **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	0.0338	0.0300	113	70-130	

Lab Batch #: 3110541 **Sample:** 645975-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.14.2019 02:25 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3110541 **Sample:** 7692420-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.14.2019 03:05 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	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: CS Caylor

Work Order #: 645975 **Project ID:** 700376 049 04

Analyst: KTL **Date Prepared:** 12.13.2019 **Date Analyzed:** 12.14.2019

Lab Batch ID: 3110541 **Sample:** 7692420-1-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	0.104	104	0.100	0.0999	100	4	70-130	25	
Toluene	<0.000367	0.100	0.0982	98	0.100	0.0945	95	4	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0938	94	0.100	0.0905	91	4	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.188	94	0.200	0.182	91	3	70-130	25	
o-Xylene	<0.000642	0.100	0.0938	94	0.100	0.0929	93	1	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: CS Caylor

Work Order # : 645975 **Project ID:** 700376 049 04

Lab Batch ID: 3110541 **QC- Sample ID:** 645975-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 12.14.2019 **Date Prepared:** 12.13.2019 **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	0.00517	0.100	0.111	106	0.100	0.112	107	1	70-130	25	
Toluene	0.000540	0.100	0.100	99	0.100	0.100	99	0	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0972	97	0.100	0.0985	99	1	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.197	99	0.200	0.199	100	1	70-130	25	
o-Xylene	<0.000642	0.100	0.0995	100	0.100	0.101	101	1	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 Crasbad, 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: U45975

www.xenco.com Page 1 of 2

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:	SRS # 2002-10250
Phone:	575 441 4835	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:	CS CAYLOR	Turn Around	
Project Number:	700376 049 04	Routine	☒
Project Location	LOVINGTON NEW MEXICO	Rush:	
Sampler's Name:	BILL RIGGS	Due Date:	
PO #:	SRS #2002-10250	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	4.0	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:	39

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX	Sample Comments
	MW 9A	GW	12-10-19	9:10AM	—	3		X	EMAIL ANALYTICALS TO: CAMILLE BRYANT
	MW 20	GW	12-10-19	9:45AM	—	3		X	
	MW 8A	GW	12-10-19	10:50AM	—	3		X	
	MW 17A	GW	12-10-19	11:24AM	—	3		X	
	MW 16A	GW	12-10-19	1:08 pm	—	3		X	
	MW 15A	GW	12-10-19	1:40 pm	—	3		X	
	MW 6A	GW	12-10-19	2:26pm	—	3		X	
	MW 14A	GW	12-10-19	305pm	—	3		X	
	MW 13A	GW	12-11-19	10:15AM	—	3		X	
	MW 18A	GW	12-11-19	10:44 AM	—	3		X	

ANALYSIS REQUEST

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

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		12/11/19 14:59	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

Final 1.000

Page 17 of 21

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

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Work Order No: 645975

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 NEW MEXICO 88210	**City, State ZIP:**	SRS # 2002-10250
Phone:	575 441 4835	**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:	C S TAYLOR	**Turn Around**	
Project Number:	700376 049 04	Routine ☒	
Project Location	LOVINGTON NEW MEXICO	Rush:	
Sampler's Name:	BILL RIGGS	Due Date:	
PO #:	SRS # 2002-10250	**Quote #:**	

SAMPLE RECEIPT

Temp Blank:	Yes No	**Wet Ice:**	Yes ~~No~~
Temperature (°C):		**Thermometer ID**	
Received Intact:	Yes No	See pet	
Cooler Custody Seals:	Yes ~~No~~ N/A	**Correction Factor:**	
Sample Custody Seals:	Yes No N/A	**Total Containers:**	

ANALYSIS REQUEST

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	BTEX	Sample Comments
	MW 11A	GW	12-11-19	11:15 AM	—	3		X	EMAIL ANALYTICALS TO: CAMILLE BRYANT
	MW 21	GW	12-11-19	11:40 AM	—	3		X	
	MW 10A	GW	12-11-19	9:20 AM	—	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		12.11.19 14:59	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Final 1.000

Inter-Office Shipment

IOS Number **54195**

Date/Time: 12/12/19 11:51
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
645975-001	W	MW 9A	12/10/19 09:10	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-002	W	MW 20	12/10/19 09:45	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-003	W	MW 8A	12/10/19 10:50	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-004	W	MW 17A	12/10/19 11:24	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-005	W	MW 16A	12/10/19 13:08	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-006	W	MW 15A	12/10/19 13:40	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-007	W	MW 6A	12/10/19 14:26	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-008	W	MW 14A	12/10/19 15:05	SW8021B	BTEX by EPA 8021	12/17/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-009	W	MW 13A	12/11/19 10:15	SW8021B	BTEX by EPA 8021	12/17/19	12/25/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-010	W	MW 18A	12/11/19 10:44	SW8021B	BTEX by EPA 8021	12/17/19	12/25/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-011	W	MW 11A	12/11/19 11:15	SW8021B	BTEX by EPA 8021	12/17/19	12/25/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-012	W	MW 21	12/11/19 11:40	SW8021B	BTEX by EPA 8021	12/17/19	12/25/19	JKR	BR4FBZ BZ BZME EBZ T	
645975-013	W	MW 10A	12/11/19 09:20	SW8021B	BTEX by EPA 8021	12/17/19	12/25/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 12/12/2019

Received By: _____

Date Received: _____

Cooler Temperature: _____

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 54195

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

Sent By: Elizabeth McClellan **Date Sent:** 12/12/2019 11:51 AM

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: 12/11/2019 02:59:00 PM

Work Order #: 645975

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?	**Yes**	

*** 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: 12/11/2019

Checklist reviewed by: Jessica Kramer Date: 12/12/2019