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TALON LPE

2019 ANNUAL GROUNDWATER MONITORING REPORT

KIMBROUGH SWEET 8”
LEA COUNTY, NEW MEXICO
SRS #2000—10757
NMOCD REF. # AP-0029

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

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January 29, 2020

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TALON/LPE PROJECT NO. 700376.050.11

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NMSLO – New Mexico State Land Office

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The Kimbrough Sweet 8" (site) is located approximately seven (7) miles northwest of Hobbs, New Mexico in Unit G, Section 3, Township 18 South, and Range 37 East. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from the 8-inch steel pipeline on October 25, 2000. At the time of the release, the pipeline was owned by EOTT Energy Pipeline. 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 60 barrels (bbls) of crude oil were released and impacted approximately 15,613 feet of surface area. Approximately 22 bbls of crude oil was recovered during initial remediation activities.

The site is situated within a physiographic region 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 3,720-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 that 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 contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone which has undergone calichification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern

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

1.3 Previous Environmental Investigations

Currently, a total of 17 groundwater monitor 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 wells MW-1, MW-2, MW-3, and MW-4 were installed in January 2002. Groundwater monitor wells MW-5, MW-7, MW-8, and MW-9 were installed in July 2004, and monitor wells MW-6, MW-10, and MW-11 were installed in December 2004. Monitor wells MW-12 and MW-13 were installed on March 11, 2009 and monitor wells MW-14 and MW-15 were installed in January of 2011. Replacement monitor well MW-1A and monitor wells MW-16, MW-17, and MW-18 were installed in November of 2013. Monitor Well MW-1 was plugged and abandoned.

Phase-separated hydrocarbon (PSH) recovery operations have been performed at the site since January 2002, initially by hand bailing. In 2007, an automated skimmer recovery system was installed at the site. In March of 2011, solar panels were installed at the site and two (2) 12-volt (12V) total fluid pumps were installed in monitor wells MW-5 and MW-6. In November of 2011, additional 12V-powered total fluids pumps were installed in monitor wells MW-2 and MW-11. In October 2012, an internal combustion engine (ICE) system for running pumps and vapor extraction was installed on site. There were five (5) total fluids pumps, powered by an ICE unit, in monitor wells MW-5, MW-6, MW-7, MW-8, MW-11, and two (2) solar powered electric pumps in MW-2, and MW-9 at that time. The engine for the ICE unit failed in May 2016. Operation of the ICE unit was discontinued that time.

Beginning in June 2016, Mobile Dual-Phase Extraction (MDPE) events began and are currently conducted on a monthly basis. No other types of PSH recovery are being carried out at this site.

In August of 2018, six wells (MW-2, MW-4, MW-7, MW-8, MW-10, and MW-11) were plugged and abandoned due to decreasing groundwater levels. Five replacement wells were installed (MW-2A, MW-7A, MW-8A, MW-11A, and MW-19), and one well (MW-1A) was repaired due to vandalism.

Twelve (12) MDPE events were conducted on a monthly basis beginning in January 2019 and ending in December of 2019.

Approximately 565.52 bbls of combined liquid and vapor PSH has been recovered to date consisting of approximately 239.71 bbls of vapor phase and 325.81 bbls of liquid phase PSH.

1.4 Regulatory Framework

Groundwater analytical data from this site was evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards.

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

The following sections provide summaries of the groundwater monitoring activities conducted at the site as well as analytical results from each groundwater sampling event of 2019. Analytical results for the four (4) sampling events are summarized in Table 2 and Table 3 in Appendix B, and Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chains of custody documentation are included in Appendix C.

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during 2019. The primary function of groundwater monitoring is to measure the depths to fluids 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.

2.1 Groundwater Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2019 on March 14, June 11, September 23, and December 9. During all of the groundwater monitoring events, the depths to fluids were measured in all of the monitoring wells using an oil/water interface probe.

During the March 2019 groundwater monitoring event all monitor wells were gauged. Thirteen (13) monitor wells (MW-2A, MW-3, MW-7A, MW-8A, MW-11A, and MW-12 through MW-19) were purged and sampled. Three (3) monitor wells (MW-5, MW-6, and MW-9) were not sampled due to the presence of PSH. Monitor well MW-1A was not purged or sampled due to blockage. Details of the gauging, purging, and sample collection activities are presented in Section 2.2 below.

During the June 2019 groundwater monitoring event all monitor wells were gauged. Eleven (11) monitor wells (MW-2A, MW-7A, MW-8A, and MW-12 through MW-19) were purged and sampled. Three (3) monitor wells (MW-6, MW-9, and MW-11A) were not sampled due to the presence of PSH. Three (3) monitor wells (MW-1A, MW-3, and MW-5) were purged dry with no recovery; therefore, were not sampled. Details of the gauging, purging, and sample collection activities are presented in Section 2.2 below.

During the September 2019 groundwater monitoring event all monitor wells were gauged. Eleven (11) monitor wells (MW-1A, MW-7A, MW-8A, and MW-12 through MW-19) were purged and sampled. Five (5) monitor wells (MW-2A, MW-5, MW-6, MW-9, and MW-11A) were not sampled due to the presence of PSH. Monitor well MW-3 was purged dry without recovery; therefore, was not sampled.

During the December 2019 groundwater monitoring event all monitor wells were gauged. Eleven (11) monitor wells (MW-1A, MW-7A, MW-8A, and MW-12 through MW-19) were purged and sampled. Five (5) monitor wells (MW-2A, MW-5, MW-6, MW-9, and MW-11A) were not sampled due to the presence of PSH. Monitor well MW-3 was purged dry without recovery; therefore, it was not sampled.

2.2 Groundwater Gauging, Purging, and Sample Collection Procedures

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

Subsequent to gauging, all monitor wells not impacted with PSH were purged a minimum of three (3) casing volumes using a 12-volt, submersible pump equipped with vinyl tubing. The purge pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was contained in on-site 55-gallon drums. The purge water is then placed into the on site holding tank for subsequent disposal at Gandy Marley via vacuum truck.

Groundwater samples were collected from all monitor wells using disposable polyethylene bailers. Each groundwater sample was contained in laboratory supplied sample containers with the appropriate preservative required for the analysis requested.

The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to Xenco Laboratory in Midland, Texas for analyses. The groundwater samples collected during all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. Groundwater sampled collected from MW-2A, MW-7A, MW-8A, MW-11A, MW-12, MW-16 through MW-19 in March 2019 were also analyzed for polycyclic aromatic hydrocarbons (PAH) by EPA method 8270.

2.3 Phase Separated Hydrocarbon Recovery

PSH recovery has been conducted at the site since 2002, initially by hand bailing. In 2007, an automated skimmer recovery system was installed at the site. In March of 2011, solar panels were installed at the site and two (2) 12-volt (12V) total fluid pumps were installed in monitor wells MW-5 and MW-6. In November of 2011, additional 12V-powered total fluids pumps were installed in monitor wells MW-2 and MW-11. In October 2012, an ICE system for running pumps and vapor extraction was installed on site.

The system utilized five (5) pneumatic total fluid pumps in monitor wells MW-5, MW-6, MW-7, MW-8, and MW-11 and two (2) 12V total fluids pumps in MW-2 and MW-9 to recover PSH and to inhibit migration of the PSH plume. The ICE assembly consists of pneumatic total fluid pumps combined with vapor suction. Since there is no electricity at the site; the ICE system was powered by propane and vapors from listed wells. The 12V total fluids pumps operate off 12V batteries, which are charged by solar panels.

Fluid recovered by the pumps was retained in two (2) polyethylene tanks, a 3,000-gallon and a 2,500-gallon that was added in 2011. The tanks are coupled together and are equipped with high-level shut-off switches to prevent overflow. In addition, the tanks are located within a secondary recovery compound that is equipped with a polyethylene liner. The ICE system discontinued operation in May 2016.

Currently there are no fluid pumps in use at this site. One 2,500-gallon polyethylene tank is currently in use. MDPE events are conducted monthly. This system utilizes vapor pulled by vacuum combined with propane to power an internal combustion engine, which also powers a compressor and the blower used to create vacuum for vapor recovery. Compressed air from the system drives pneumatic pumps placed in the various wells containing PSH. Fluid recovered by the pumps is retained in the onsite poly tank. Recovered groundwater and PSH is removed from the poly tanks and transported to an NMOCD approved disposal facility, Gandy Marley, via vacuum truck at the end of the MDPE events.

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

- 1st Quarter – 11.29 bbls PSH and 37.6 bbls of groundwater
- 2nd Quarter – 12.13 bbls PSH and 44.66 bbls of groundwater
- 3rd Quarter – 9.99 bbls PSH and 30.9 bbls of groundwater
- 4th Quarter – 10.36 bbls PSH and 92.7 bbls groundwater

Twelve (12) mobile duel phase extraction (MDPE) events, in which liquid and vapor PSH were recovered, were conducted on site during 2019. The individual MDPE event recovery totals are as follows:

- January 8, 2019 – 2.27 bbls vapor, 0.76 bbls liquid
- February 6, 2019– 3.44 bbls vapor, 0.81 bbls liquid
- March 6, 2019 – 2.99 bbls vapor, 1.02 bbls liquid
- April 9, 2019– 3.69 bbls vapor, 0.76 bbls liquid
- May 1, 2019– 2.47 bbls vapor, 0.62 bbls liquid
- June 4, 2019– 4.21 bbls vapor, 0.38 bbls liquid
- July 11, 2019– 2.42 bbls vapor, 0.55 bbls liquid
- August 7, 2019– 2.33 bbls vapor, 1.31 bbls liquid
- September 5, 2019– 3.19 bbls vapor, 0.19 bbls liquid
- October 15, 2019– 2.48 bbls vapor, 0.74 bbls liquid
- November 15, 2019– 1.6 bbls vapor, 2.81 bbls liquid
- December 19, 2019– 0.13 bbls vapor, 2.6 bbls liquid

In 2019 an estimated total of 43.77 bbls of PSH were recovered during the MDPE events. Approximately 565.52 bbls of PSH consisting of 239.71 bbls of vapor phase and 325.81 bbls of liquid phase PSH have been recovered from the site to date.

3.0 GROUNDWATER ASSESSMENT AND 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 chains of custody documentation are provided in Appendix C. The following sections present the results from the four groundwater monitoring events conducted on the first water-bearing zone underlying the site.

3.1 Groundwater Monitoring Results

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

3.2.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala Aquifer underlies an area of about 29,000 square miles in western Texas and eastern New Mexico, 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 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 inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot with a specific yield averaging 16%. The depth to groundwater at the site ranged from 60.59 feet below ground surface (bgs) to 66.05 feet bgs and the groundwater flow direction is to the east northeast. 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.

3.2.2 Groundwater Gradient and Flow Direction

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2019. The results of the fluid level measurements are summarized in Table 1, 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 in 2019 indicate that the groundwater flow direction is to east northeast with average gradient of 0.0046 feet per foot or approximately 24.29 feet per mile. Groundwater levels at the subject site have exhibited a slight decrease of an average of 0.19 feet for the year 2019 that appears to be associated with a regional trend of fluctuating groundwater levels for the Ogallala Aquifer.

3.2.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thicknesses of PSH during the four (4) groundwater monitoring events. Generally, PSH thicknesses have fluctuated from quarter to quarter during the year 2019.

In addition to potentiometric surface maps, isopleth maps were prepared depicting the measured PSH thicknesses and PSH plume geometry. PSH plume delineation and thickness maps are presented in Appendix A as Figures 3a through 3d.

- In March of 2019, PSH was observed in monitor wells MW-5, MW-6, and MW-9. PSH thickness ranged from 0.02 feet to 0.21 feet.
- In June of 2019, PSH was observed in monitor wells MW-6, MW-9, and MW-11A. PSH thickness ranged from 0.01 feet to 2.65 feet.
- In September 2019, PSH was observed in monitor wells MW-2A, MW-5, MW-6, MW-9, and MW-11A. PSH thickness ranged from 0.07 feet to 4.22 feet.
- In December of 2019, PSH was observed in monitor wells MW-2A, MW-5, MW-6, MW-9, and MW-11A. PSH thickness ranged from 0.05 feet to 1.90 feet.

PSH recovery operations have been performed at the site since 2002. A summary of the historical groundwater and PSH gauging is provided in Table 1 in Appendix B. Approximately 565.52 bbls of PSH consisting of 239.71 bbls of vapor phase and 325.81 bbls of liquid phase PSH have been recovered from the site to date.

3.4 Groundwater Sampling Results

During the first quarter, March 2019, the following monitor wells were sampled: MW-2A, MW-3, MW-7A, MW-8A, MW-11A, and MW-12 through MW-19. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than method detection limits (MDL) in MW-3, MW-7A, MW-12, MW-13, and MW-18 to 2.08 mg/L in MW-11A. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in monitor wells MW-2A and MW-11A this quarter.
- Toluene concentrations were less than MDLs in MW-3, MW-7A and MW-12 through MW-18 to 0.341 mg/L in MW-2A. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in all of the monitor wells sampled this quarter.
- Ethylbenzene concentrations were less than MDLs in MW-3, MW-7A, and MW-12 through MW-15, MW-17, and MW-18 to 0.366 mg/L in MW-11A. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in all of the monitor wells sampled this quarter.
- Xylene concentrations were less than MDLs in MW-3, MW-7A, and MW-12 through MW-18 to 0.403 mg/L in MW-2A. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in all of the monitor wells sampled this quarter.
- Polycyclic Aromatic Hydrocarbons (PAH by EPA 8270) were added to the first quarter sampling event for MW-2A, MW-7A, MW-8A, MW-11A, MW-12, MW-16, MW-17, MW-18, and MW-19. Trace levels of naphthalene were detected in all well sampled with the exception of MW-18; however, no concentrations were above the NMWQCC groundwater standard of 0.030 mg/L. MW-18 has exhibited no evidence of PAH's for the past 2 years and therefore will be deleted from future PAH sampling events.

During the June 2019 sampling event, the following wells were sampled: MW-2A, MW-7A, MW-8A, and MW-12 through MW-19. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations were <0.000408 mg/L in MW-7A and MW-12 through MW-18 to 2.23 mg/L in MW-2A. Benzene concentration exceeded the NMWQCC groundwater standard of 0.010 mg/L in monitor well MW-2A this quarter.
- Toluene concentrations were <0.000367 mg/L in MW-7A and MW-12 through MW-19 to 0.946 mg/L in MW-2A. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.075 mg/L in monitor well MW-2A this quarter.
- Ethylbenzene concentrations were <0.000657 mg/L MW-7A and MW-12 through MW-19 to 0.260 mg/L in MW-2A. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled this quarter.
- Xylene concentrations were <0.000367 in MW-12 through MW-19 to 0.670 in MW-2A. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.62 mg/L in monitor well MW-2A this quarter.

During the September 2019 sampling event, the following wells were sampled: MW-1A,

MW-7A, MW-8A, and MW-12 through MW-19. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations were <0.000408 mg/L in all wells sampled. Benzene concentrations did not exceed the NMWQCC groundwater standard of 0.0100 mg/L in any of the monitor wells sampled this quarter.
- Toluene concentrations were <0.000367 mg/L in all wells sampled. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in in any of the monitor wells sampled this quarter.
- Ethylbenzene concentrations were <0.000657 mg/L in all wells sampled. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the monitor wells sampled this quarter.
- Xylene concentrations were <0.000630 mg/L in all wells sampled. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.62 mg/L in in any of the monitor wells sampled this quarter.

During the December 2019 sampling event, the following wells were sampled: MW-1A, MW-7A, MW-8A, and MW-12 through MW-19. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations were <0.000408 mg/L in all wells sampled except for MW-8A with a concentration of 0.000470 mg/L. Benzene concentrations did not exceed the NMWQCC benzene standard of 0.0100 mg/L in any of the monitoring wells sampled this quarter.
- Toluene concentrations were <0.000367 mg/L in MW-14 and MW-15 to 0.00159 mg/L in MW-8A. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the wells this quarter.
- Ethylbenzene concentrations were <0.000657 mg/L in all wells sampled except for MW-8A with a concentration of 0.00360 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the wells sampled this quarter.
- Xylene concentrations were <0.000630 mg/L in all wells sampled except for MW-8A with a concentration of 0.00478 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the wells sampled this quarter.

The laboratory analytical results for BTEX are summarized in Table 2 – Summary of Historical Groundwater Analytical Results in Appendix B. The PAH laboratory analytical results are summarized in Table 3 – Summary of Historical Groundwater Analytical Results - PAH Supplement in Appendix B. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the Kimbrough Sweet 8" site and Section 4.2 provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction is to east northeast with an average gradient of 0.0046 ft/ft based on the water level measurement data collected in 2019.
- Groundwater levels at the subject site have slightly decreased at an average of 0.19 feet for the year 2019.
- PSH has impacted monitor wells MW-2A, MW-5, MW-6, MW-9, and MW-11A in 2019.
- Approximately 43.77 bbls of PSH was recovered during the year 2019.
- Dissolved-phase concentrations were stable over the year 2019. The benzene concentration in MW-2A exceeded the NMWQCC groundwater standard of 0.0100 mg/L during the March and June event but was not sampled during the September and December sampling events due to PSH. MW-11A exceeded the benzene NMWQCC groundwater standard of 0.0100 mg/L during the March sampling event and exhibited PSH for all the remainder of the year. The toluene concentration in MW-2A exceeded NMWQCC groundwater standard of 0.750 mg/L during the June event. The Xylene concentration in MW-2A exceeded NMWQCC groundwater standard of 0.620 mg/L during the June event.

4.2 Recommendations

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

- Conduct monthly MDPE events.
- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Continue PAH sampling during the first quarter sampling event.
- Request NMOCD to allow a modification (reduction) in the sampling frequency from monitoring wells that have exhibited no evidence of contamination above NMWQCC standards for eight (8) consecutive quarters. Specifically, we are requesting that wells MW-12, MW-13, MW-14, and MW-15 be sampled only on an annual basis.

APPENDIX A

Figures

Figure 1 - Site Plan

Figure 2a - Groundwater Gradient Map - 03/14/2019

Figure 2b - Groundwater Gradient Map - 06/11/2019

Figure 2c - Groundwater Gradient Map - 09/23/2019

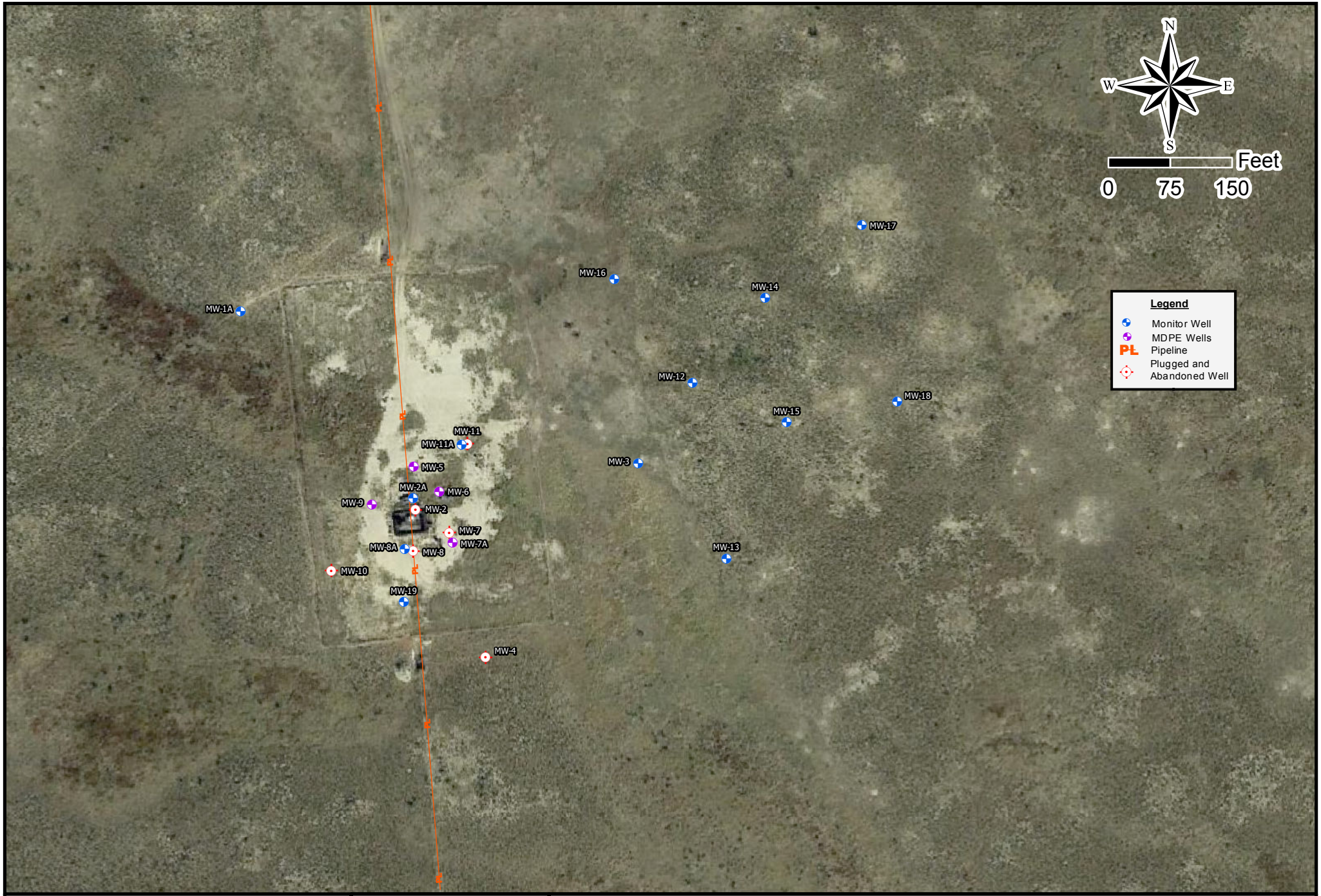
Figure 2d - Groundwater Gradient Map - 12/09/2019

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/15/2019

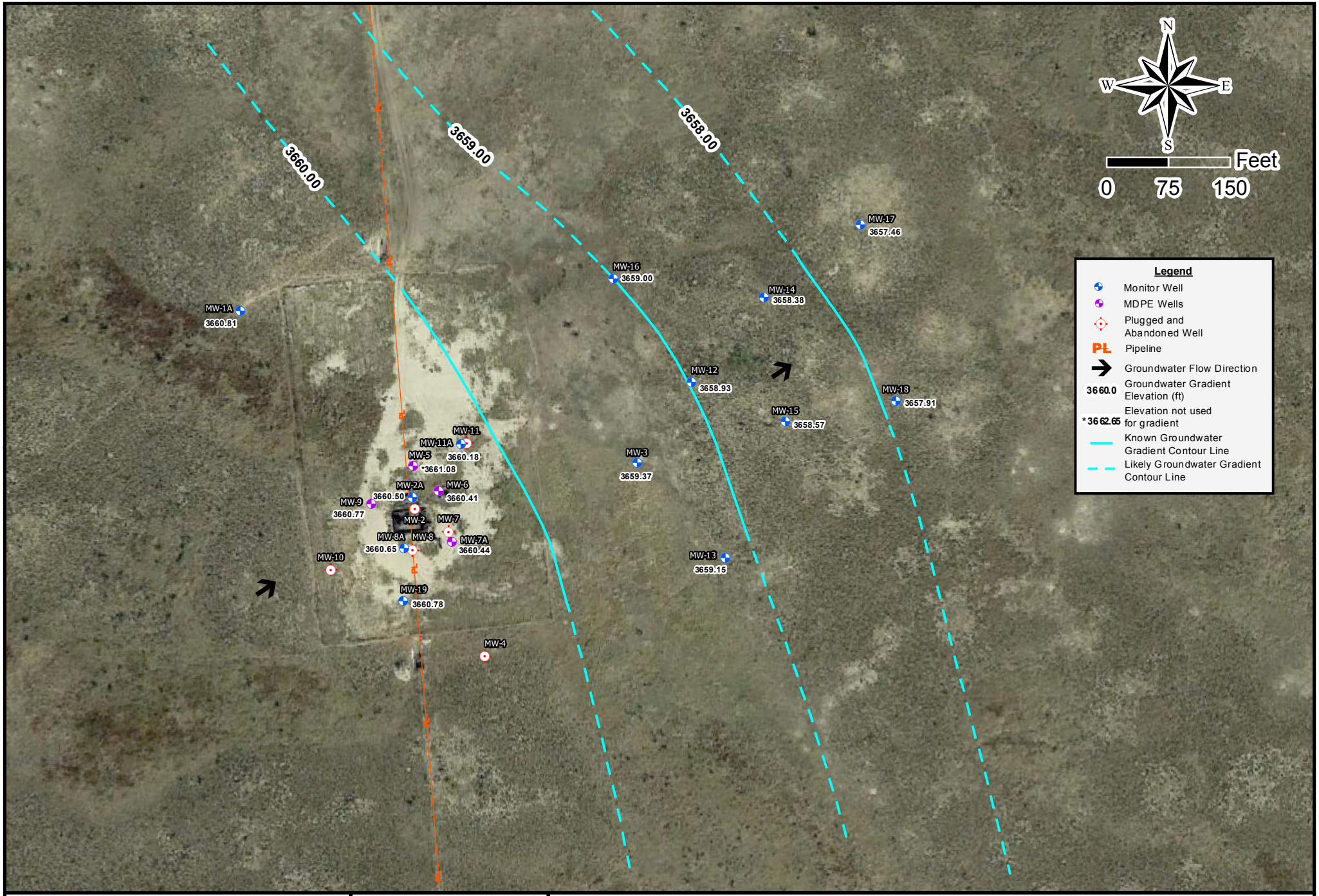
Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/-11-12/2019

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/23-25/2019

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/09-10/2019



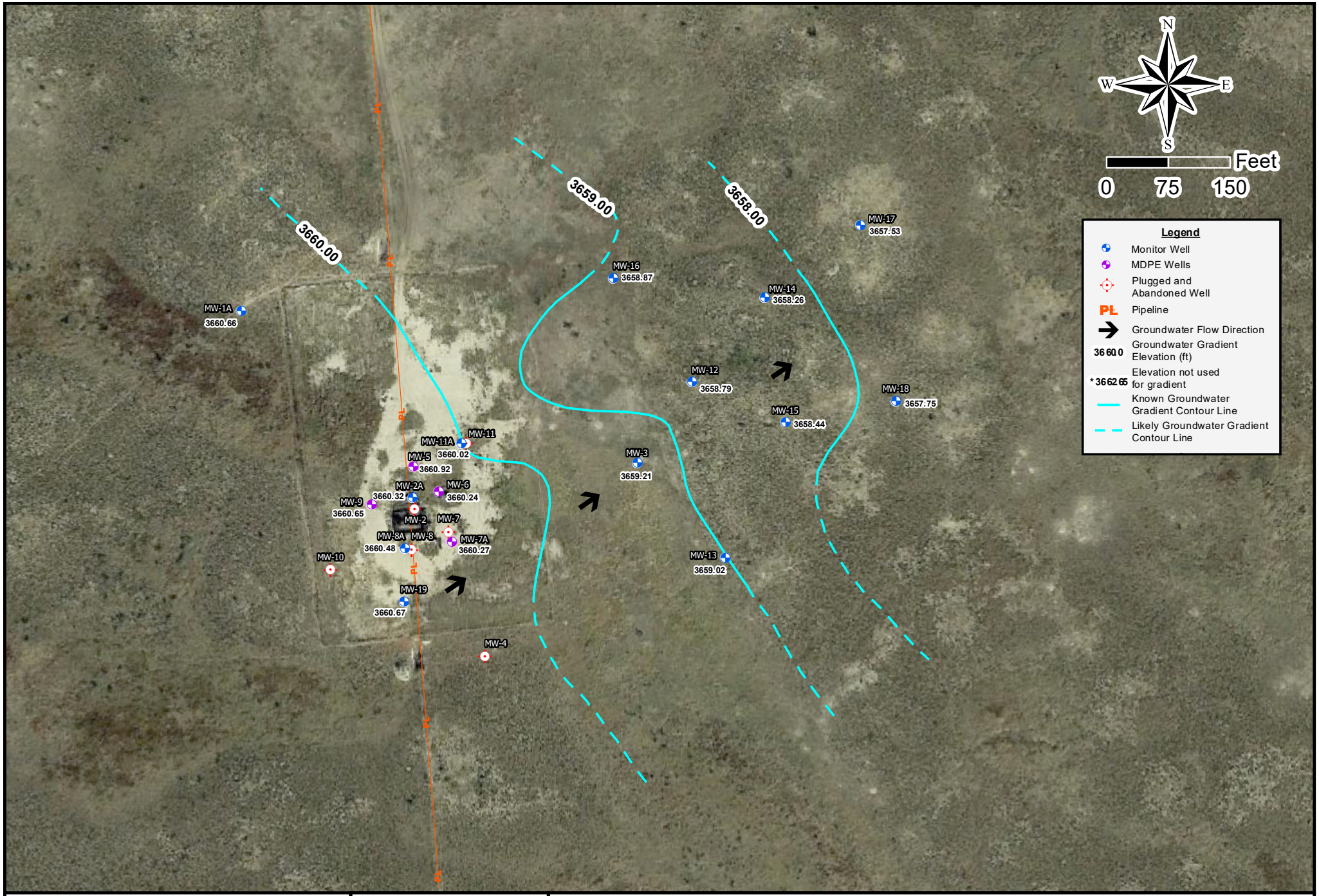
TALON LPE	Drafted: 2/11/2019 1 in = 150 ft Drafted By: IJM	Kimbrough Sweet 8" SRS # 2000-10757, NMOCD REF. # AP-0029 SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico Figure 1 - Updated Site Map (2/11/2019)



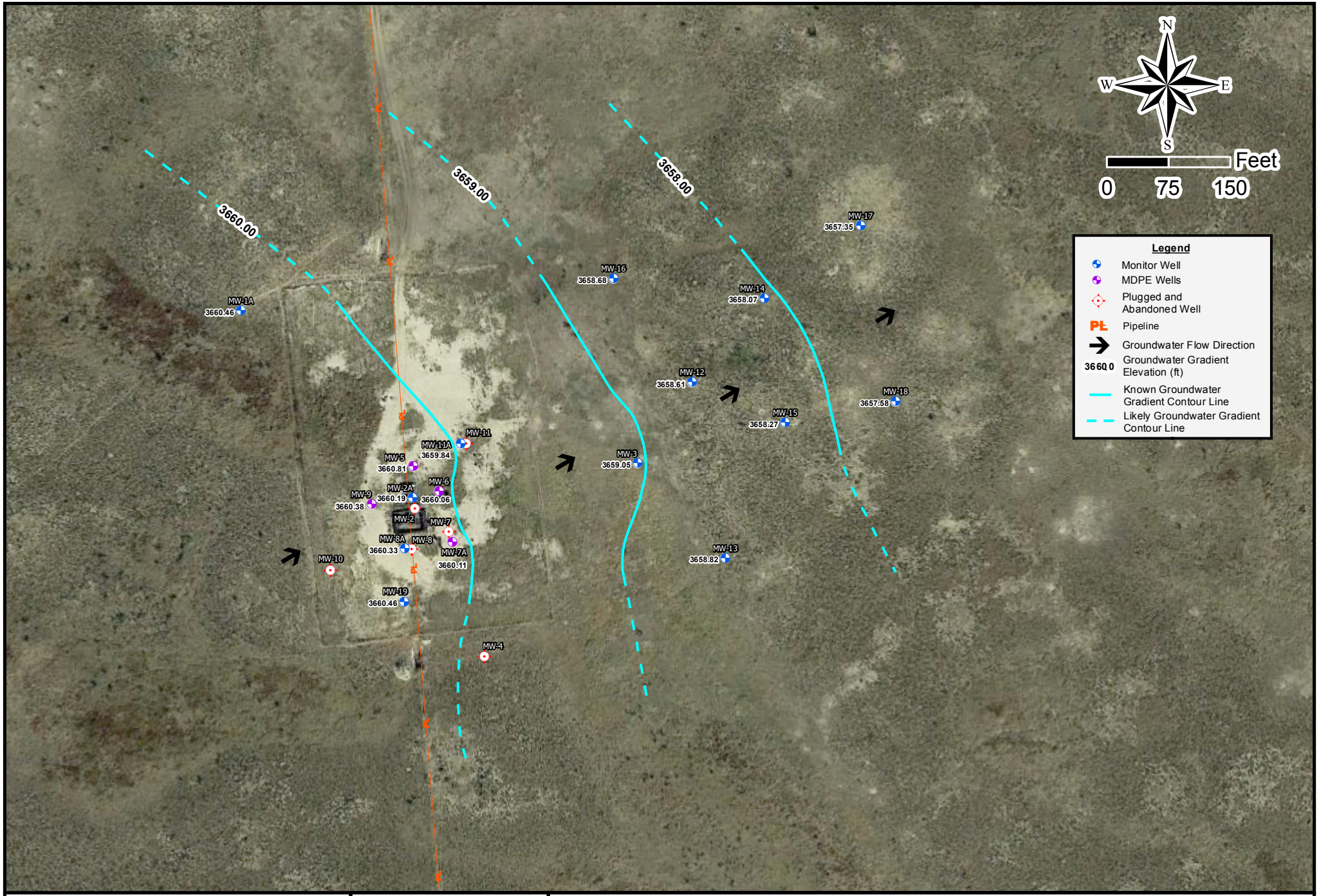
TALON LPE

Drafted: 4/19/2019
1 in = 150 ft
Drafted By: IJM

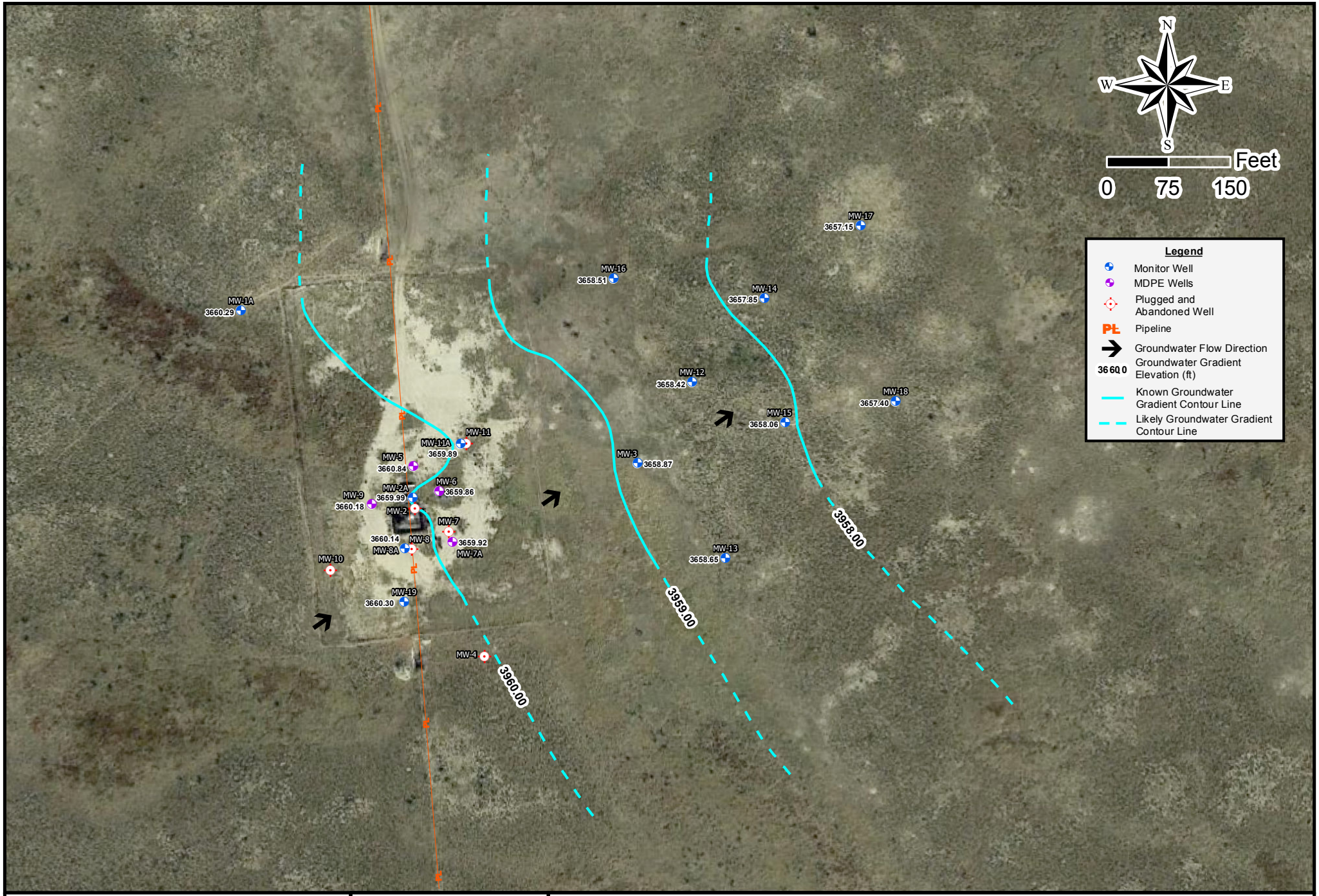
Kimbrough Sweet 8"
SRS # 2000-10757, NMOCD REF. # AP-0029
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
Figure 2a - Groundwater Gradient Map (03/14/2019)



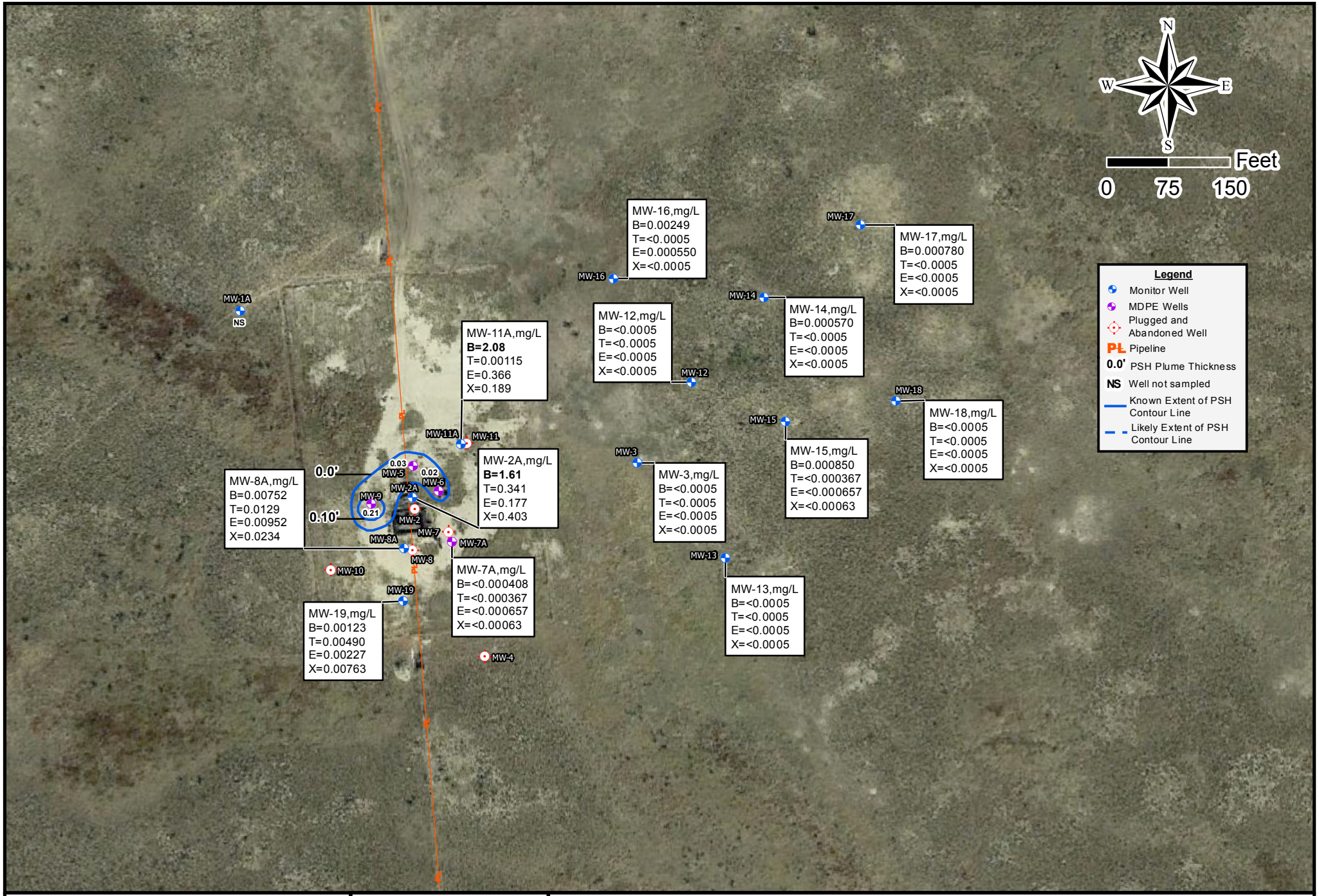
TALON LPE	Drafted: 7/10/2019 1 in = 150 ft Drafted By: JAI	Kimbrough Sweet 8" SRS # 2000-10757, NMOCD REF. # AP-0029 SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico Figure 2b - Groundwater Gradient Map (06/11/2019)



TALON LPE	Drafted: 10/14/2019 1 in = 150 ft Drafted By: JAI	Kimbrough Sweet 8" SRS # 2000-10757, NMOCD REF. # AP-0029 SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico Figure 2c - Groundwater Gradient Map (09/23/2019)



TALON LPE	Drafted: 1/25/2020 1 in = 150 ft Drafted By: JAI	Kimbrough Sweet 8" SRS # 2000-10757, NMOCD REF. # AP-0029 SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico Figure 2d - Groundwater Gradient Map (12/09/2019)



TALON LPE

Drafted: 4/23/2019

1 in = 150 ft

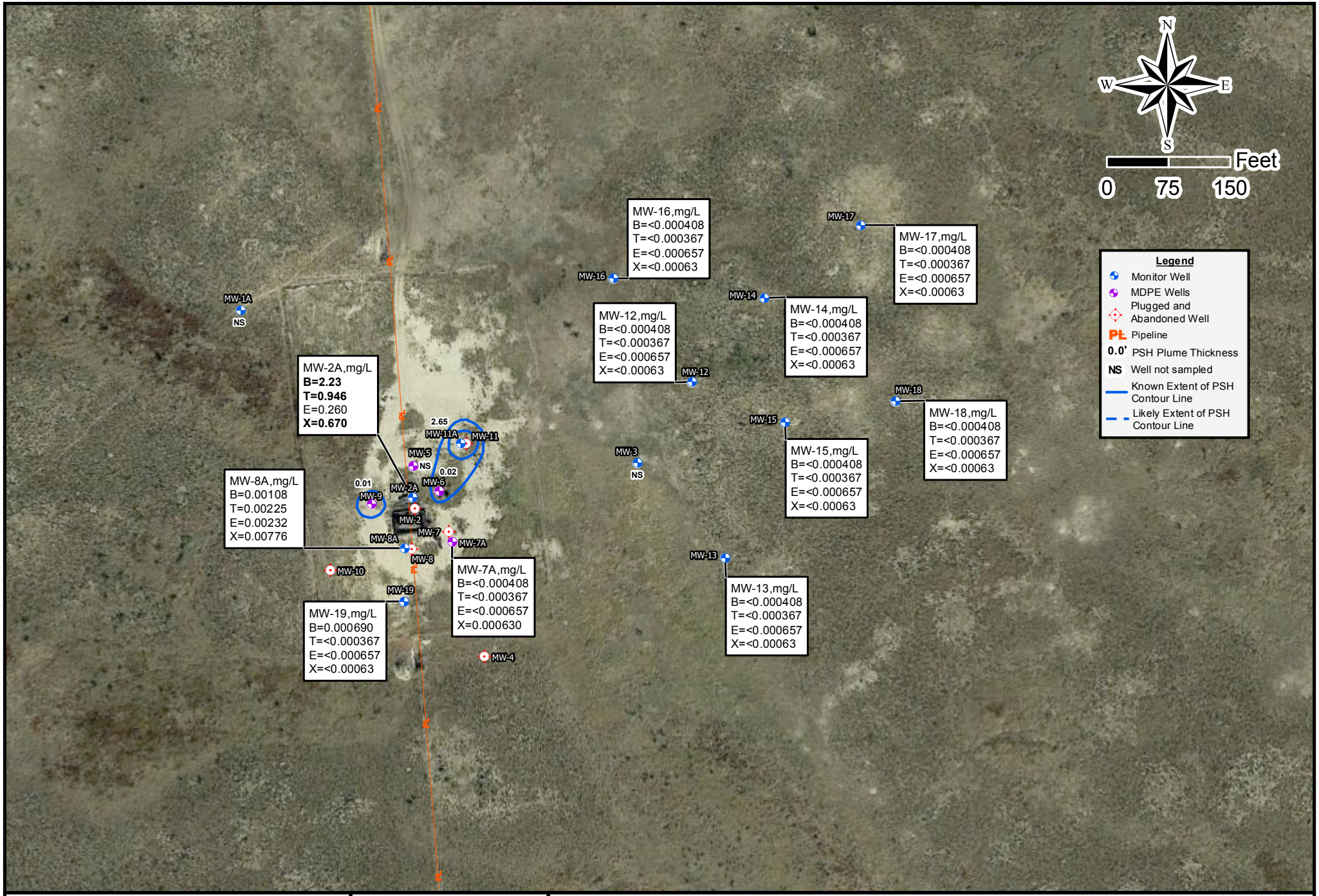
Drafted By: IJM

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

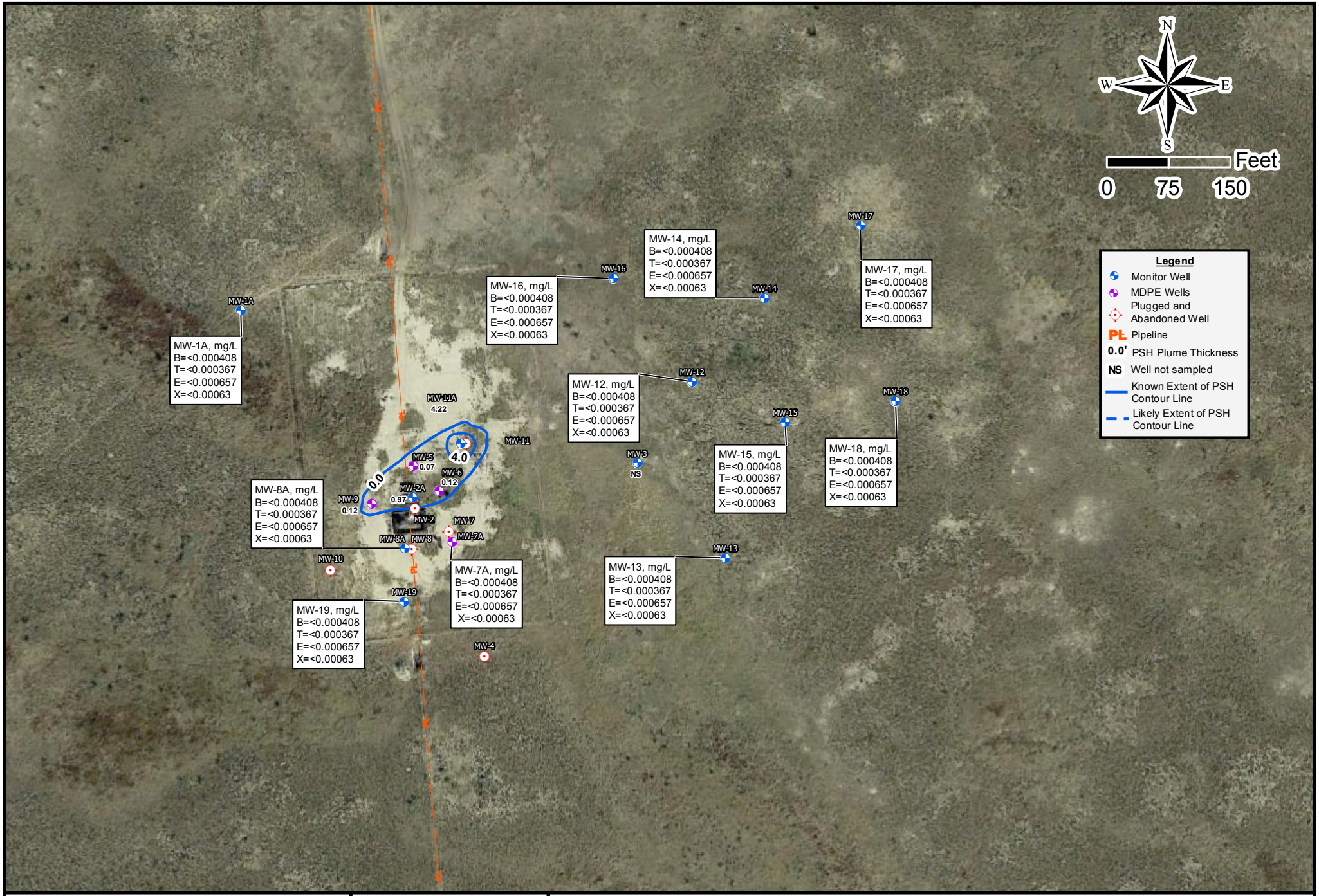
Figure 3a - PSH Thickness and Groundwater Concentration Map (03/15/2019)



TALON LPE

Drafted: 3/19/2020
1 in = 150 ft
Drafted By: JAI

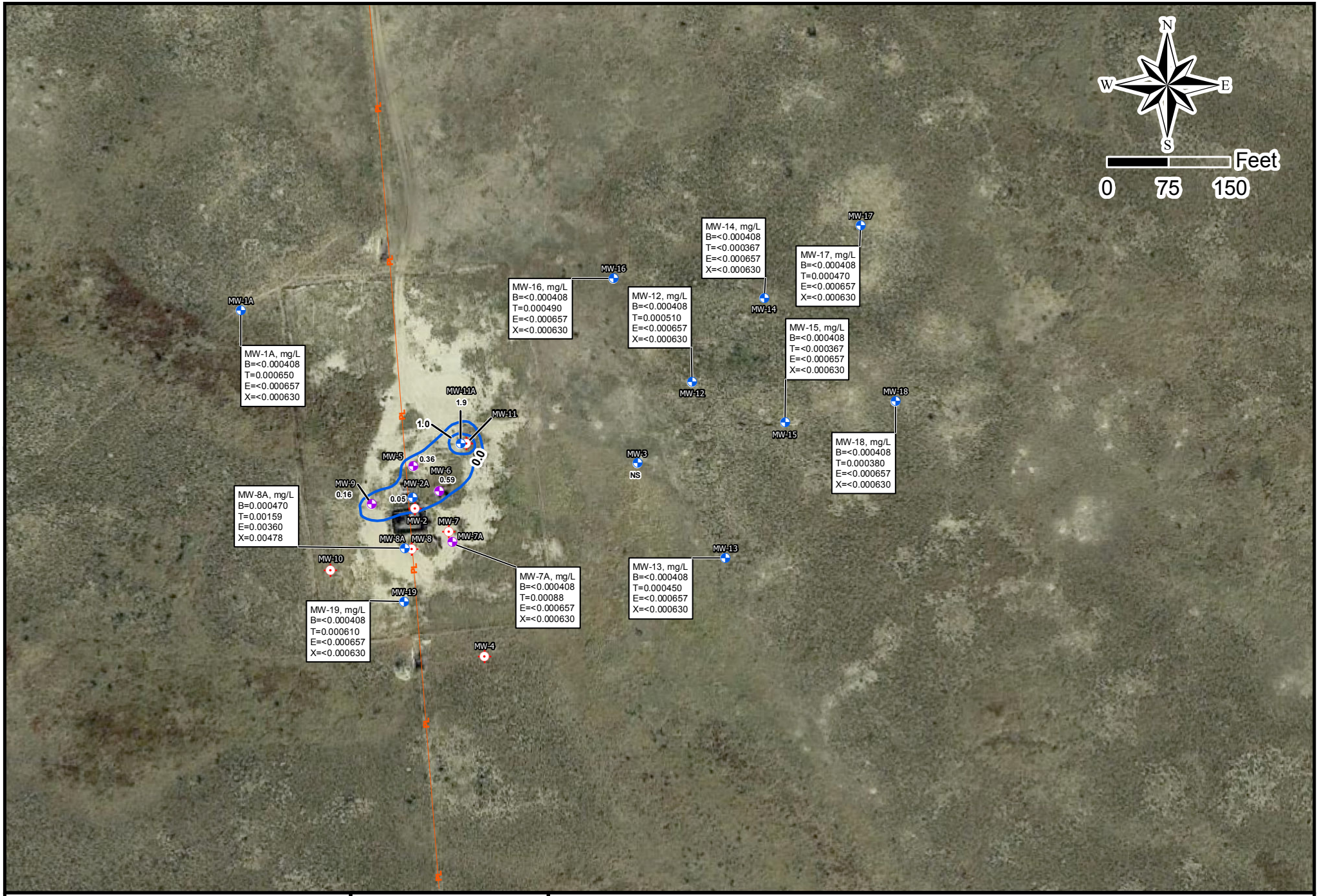
Kimbrough Sweet 8"
SRS # 2000-10757, NMOCD REF. # AP-0029
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
Figure 3b - PSH Thickness and Groundwater Concentration Map (06/11-12/2019)



TALON LPE

Drafted: 3/19/2020
1 in = 150 ft
Drafted By: JAI

Kimbrough Sweet 8"
SRS # 2000-10757, NMOCD REF. # AP-0029
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
Figure 3c - PSH Thickness and Groundwater Concentration Map (09/23-25/2019)



TALON LPE

Drafted: 1/27/2020
1 in = 150 ft
Drafted By: JAI

Kimbrough Sweet 8"
SRS # 2000-10757, NMOCD REF. # AP-0029
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
Figure 3d - PSH Thickness and Groundwater Concentration Map (12/09-10/2019)

APPENDIX B

Tables

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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 2"	3723.46	55.7	85.7	03/10/2016	60.52	-	-	3662.94
				05/27/2016	61.66	-	-	3661.80
				09/09/2016	60.89	-	-	3662.57
				12/06/2016	61.05	-	-	3662.41
				03/06/2017	61.23	-	-	3662.23
				06/08/2017	61.41	-	-	3662.05
				09/12/2017	61.56	-	-	3661.90
				12/13/2017	DS	-	-	-
				03/22/2018	DS	-	-	-
				09/12/2018	62.15	-	-	3661.31
				12/10/2018	62.38	-	-	3661.08
				03/14/2019	62.65	-	-	3660.81
				06/11/2019	62.80	-	-	3660.66
				09/23/2019	63.00	-	-	3660.46
				12/09/2019	63.17	-	-	3660.29
MW-2 4"	3723.32	41	61	03/10/2016	DR	-	-	-
				05/27/2016	59.94	-	-	3663.38
				09/09/2016	61.42	60.19	1.23	3662.93
				12/01/2016	DR	-	-	-
				03/06/2017	61.05	60.57	0.48	3662.67
				06/08/2017	DR	-	-	-
				09/12/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/22/2018	DR	-	-	-
				06/12/2018	DR	-	-	-
				08/29/2018	PA	-	-	-
MW-2A 4"	3722.25	60	80	09/12/2018	61.32	-	-	3660.93
				12/10/2018	61.50	-	-	3660.75
				03/14/2019	61.75	-	-	3660.50
				06/11/2019	61.93	-	-	3660.32
				09/23/2019	62.87	61.90	0.97	3660.19
				12/09/2019	62.30	62.25	0.05	3659.99
MW-3 2"	3721.52	43.4	63.4	03/10/2016	60.06	-	-	3661.46
				05/27/2016	60.21	-	-	3661.31
				09/09/2016	60.42	-	-	3661.10
				12/06/2016	60.59	-	-	3660.93
				03/06/2017	60.79	-	-	3660.73
				06/08/2017	60.96	-	-	3660.56
				09/12/2017	61.12	-	-	3660.40
				12/13/2017	63.29	-	-	3658.23
				03/22/2018	61.47	-	-	3660.05
				06/12/2018	61.65	-	-	3659.87
				09/12/2018	61.71	-	-	3659.81
				12/10/2018	61.96	-	-	3659.56
				03/14/2019	62.15	-	-	3659.37
				06/11/2019	62.31	-	-	3659.21
				09/23/2019	62.47	-	-	3659.05
				12/09/2019	62.65	-	-	3658.87

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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-4	3721.94	39.7	59.7	03/10/2016	DR	-	-	-
2"				05/27/2016	DR	-	-	-
				09/09/2016	DR	-	-	-
				12/06/2016	DR	-	-	-
				03/06/2017	DR	-	-	-
				06/08/2017	DR	-	-	-
				09/12/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/22/2018	DR	-	-	-
				06/12/2018	DR	-	-	-
				08/29/2018	PA	-	-	-
MW-5	3724.08	45	65	03/10/2016	63.87	60.65	3.22	3662.90
4"				05/27/2016	63.78	60.80	2.98	3662.79
				09/09/2016	63.15	61.45	1.70	3662.35
				12/01/2016	62.42	61.62	0.80	3662.33
				03/06/2017	62.59	62.10	0.49	3661.90
				06/08/2017	62.69	62.25	0.44	3661.76
				09/12/2017	63.19	62.40	0.79	3661.55
				12/13/2017	63.10	62.58	0.52	3661.41
				03/22/2018	63.82	62.55	1.27	3661.32
				06/12/2018	63.26	63.10	0.16	3660.95
				09/12/2018	63.14	63.13	0.01	3660.95
				12/10/2018	62.76	62.74	0.02	3661.34
				03/14/2019	63.03	63.00	0.03	3661.08
				06/11/2019	63.16	-	-	3660.92
				09/23/2019	63.33	63.26	0.07	3660.81
				12/09/2019	63.54	63.18	0.36	3660.84
MW-6	3722.16	44	64	03/10/2016	63.65	58.85	4.80	3662.52
4"				05/27/2016	61.43	59.53	1.90	3662.32
				09/09/2016	62.35	60.31	2.04	3661.51
				12/01/2016	60.76	60.14	0.62	3661.92
				03/06/2017	60.73	60.38	0.35	3661.72
				06/08/2017	60.85	60.59	0.26	3661.53
				09/12/2017	61.48	60.60	0.88	3661.41
				12/13/2017	61.58	60.78	0.80	3661.25
				03/22/2018	61.43	61.04	0.39	3661.06
				06/12/2018	61.45	61.30	0.15	3660.84
				09/12/2018	61.38	61.32	0.06	3660.83
				12/10/2018	61.53	61.52	0.01	3660.64
				03/14/2019	61.77	61.75	0.02	3660.41
				06/11/2019	61.94	61.92	0.02	3660.24
				09/23/2019	62.20	62.08	0.12	3660.06
				12/09/2019	62.79	62.20	0.59	3659.86
MW-7	3723.23	44	64	03/10/2016	61.50	60.53	0.97	3662.54
4"				05/27/2016	60.93	60.83	0.10	3662.38
				09/09/2016	61.69	61.01	0.68	3662.11
				12/01/2016	62.19	61.09	1.10	3661.96
				03/06/2017	62.30	61.32	0.98	3661.75
				06/08/2017	62.75	61.35	1.40	3661.65
				09/12/2017	62.37	61.65	0.72	3661.46
				12/13/2017	62.73	61.73	1.00	3661.33
				03/22/2018	62.25	62.08	0.17	3661.12
				06/12/2018	62.66	62.24	0.42	3660.92
				08/29/2018	PA	-	-	-

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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 2"	3722.42	60	80	09/12/2018	61.56	-	-	3660.86
				12/10/2018	61.72	-	-	3660.70
				03/14/2019	61.98	-	-	3660.44
				06/11/2019	62.15	-	-	3660.27
				09/23/2019	62.31	-	-	3660.11
				12/09/2019	62.50	-	-	3659.92
MW-8 4"	3723.41	41	61	03/10/2016	63.20	60.11	3.09	3662.79
				05/27/2016	63.43	60.26	3.17	3662.63
				09/09/2016	61.81	60.47	1.34	3662.72
				12/01/2016	61.63	60.61	1.02	3662.63
				03/06/2017	DR	-	-	-
				06/08/2017	DR	-	-	-
				09/12/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/22/2018	DR	-	-	-
				06/12/2018	DR	-	-	-
				08/29/2018	PA	-	-	-
MW-8A 2"	3723.41	60	80	09/12/2018	62.33	-	-	3661.08
				12/10/2018	62.49	-	-	3660.92
				03/14/2019	62.76	-	-	3660.65
				06/11/2019	62.93	-	-	3660.48
				09/23/2019	63.08	-	-	3660.33
				12/09/2019	63.27	-	-	3660.14
MW-9 4"	3723.25	43	63	03/10/2016	61.95	60.16	1.79	3662.79
				05/27/2016	61.35	60.42	0.93	3662.68
				09/09/2016	61.12	60.78	0.34	3662.41
				12/01/2016	61.54	60.91	0.63	3662.24
				03/06/2017	62.00	61.02	0.98	3662.07
				06/08/2017	62.28	60.10	2.18	3662.79
				09/12/2017	61.44	61.39	0.05	3661.85
				12/13/2017	62.15	61.53	0.62	3661.62
				03/22/2018	62.83	61.65	1.18	3661.41
				06/12/2018	62.25	62.20	0.05	3661.04
				09/12/2018	62.05	62.03	0.02	3661.22
				12/10/2018	62.30	62.27	0.03	3660.98
				03/14/2019	62.66	62.45	0.21	3660.77
				06/11/2019	62.61	62.60	0.01	3660.65
				09/23/2019	62.97	62.85	0.12	3660.38
				12/09/2019	63.20	63.04	0.16	3660.18
MW-10 2"	3724.14	40.1	60.1	03/10/2016	DR	-	-	-
				05/27/2016	DR	-	-	-
				09/09/2016	DR	-	-	-
				12/06/2016	DR	-	-	-
				03/06/2017	DR	-	-	-
				06/08/2017	DR	-	-	-
				09/12/2017	DR	-	-	-
				12/13/2017	DR	-	-	-
				03/22/2018	DR	-	-	-
				06/12/2018	DR	-	-	-
				08/29/2018	PA	-	-	-

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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-11 2"	3722.55	40.7	60.7	03/10/2016	60.65	59.60	1.05	3662.78
				05/27/2016	60.63	59.58	1.05	3662.80
				09/09/2016	60.59	59.81	0.78	3662.61
				12/01/2016	60.64	59.98	0.66	3662.46
				03/06/2017	60.59	60.19	0.40	3662.29
				06/08/2017	60.59	60.30	0.29	3662.20
				09/12/2017	60.60	60.48	0.12	3662.05
				12/13/2017	DR	-	-	-
				03/22/2018	DR	-	-	-
				06/12/2018	DR	-	-	-
				08/29/2018	PA	-	-	-
MW-11A 2"	3722.32	60	80	09/12/2018	61.71	-	-	3660.61
				12/10/2018	61.89	-	-	3660.43
				03/14/2019	62.14	-	-	3660.18
				06/11/2019	64.51	61.86	2.65	3660.02
				09/23/2019	66.00	61.78	4.22	3659.84
				12/09/2019	64.25	62.35	1.90	3659.89
MW-12 2"	3724.11	43	73	03/10/2016	63.08	-	-	3661.03
				05/27/2016	63.25	-	-	3660.86
				09/09/2016	63.42	-	-	3660.69
				12/06/2016	63.62	-	-	3660.49
				03/06/2017	63.30	-	-	3660.81
				06/08/2017	63.40	-	-	3660.71
				09/12/2017	64.13	-	-	3659.98
				12/13/2017	64.31	-	-	3659.80
				03/22/2018	61.46	-	-	3662.65
				06/12/2018	64.69	-	-	3659.42
				09/12/2018	64.73	-	-	3659.38
				12/10/2018	65.00	-	-	3659.11
				03/14/2019	65.18	-	-	3658.93
				06/11/2019	65.32	-	-	3658.79
				09/23/2019	65.50	-	-	3658.61
				12/09/2019	65.69	-	-	3658.42
MW-13 2"	3723.19	43	73	03/10/2016	61.96	-	-	3661.23
				05/27/2016	62.10	-	-	3661.09
				09/09/2016	62.31	-	-	3660.88
				12/06/2016	62.47	-	-	3660.72
				03/06/2017	62.68	-	-	3660.51
				06/08/2017	62.85	-	-	3660.34
				09/12/2017	63.01	-	-	3660.18
				12/13/2017	63.19	-	-	3660.00
				03/22/2018	63.36	-	-	3659.83
				06/12/2018	63.60	-	-	3659.59
				09/12/2018	65.60	-	-	3657.59
				12/10/2018	63.57	-	-	3659.62
				03/14/2019	64.04	-	-	3659.15
				06/11/2019	64.17	-	-	3659.02
				09/23/2019	64.37	-	-	3658.82
				12/09/2019	64.54	-	-	3658.65

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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-14	3725.1	62.3	82.3	03/10/2016	64.64	-	-	3660.46
4"				05/27/2016	64.78	-	-	3660.32
				09/09/2016	65.00	-	-	3660.10
				12/06/2016	65.15	-	-	3659.95
				03/06/2017	66.24	-	-	3658.86
				06/08/2017	65.55	-	-	3659.55
				09/12/2017	65.68	-	-	3659.42
				12/13/2017	65.85	-	-	3659.25
				03/22/2018	66.05	-	-	3659.05
				06/12/2018	66.24	-	-	3658.86
				09/12/2018	66.26	-	-	3658.84
				12/10/2018	66.46	-	-	3658.64
				03/14/2019	66.72	-	-	3658.38
				06/11/2019	66.84	-	-	3658.26
				09/23/2019	67.03	-	-	3658.07
				12/09/2019	67.25	-	-	3657.85
MW-15	3726.06	59.2	79.2	03/10/2016	65.40	-	-	3660.66
4"				05/27/2016	65.56	-	-	3660.50
				09/09/2016	65.75	-	-	3660.31
				12/06/2016	65.90	-	-	3660.16
				03/06/2017	66.09	-	-	3659.97
				06/08/2017	66.32	-	-	3659.74
				09/12/2017	66.45	-	-	3659.61
				12/13/2017	66.63	-	-	3659.43
				03/22/2018	66.82	-	-	3659.24
				06/12/2018	67.03	-	-	3659.03
				09/12/2018	67.04	-	-	3659.02
				12/10/2018	67.32	-	-	3658.74
				03/14/2019	67.49	-	-	3658.57
				06/11/2019	67.62	-	-	3658.44
				09/23/2019	67.79	-	-	3658.27
				12/09/2019	68.00	-	-	3658.06
MW-16	3722.32	52.7	82.7	03/10/2016	61.23	-	-	3661.09
2"				05/27/2016	61.39	-	-	3660.93
				09/09/2016	61.60	-	-	3660.72
				12/06/2016	61.74	-	-	3660.58
				03/06/2017	61.95	-	-	3660.37
				06/08/2017	61.13	-	-	3661.19
				09/12/2017	62.27	-	-	3660.05
				12/13/2017	62.43	-	-	3659.89
				03/22/2018	62.63	-	-	3659.69
				06/12/2018	62.81	-	-	3659.51
				09/12/2018	62.89	-	-	3659.43
				12/10/2018	63.07	-	-	3659.25
				03/14/2019	63.32	-	-	3659.00
				06/11/2019	63.45	-	-	3658.87
				09/23/2019	63.64	-	-	3658.68
				12/09/2019	63.81	-	-	3658.51

Table 1 - Gauging and NAPL Thickness - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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-17 2"	3725.28	56.6	86.6	03/10/2016	65.55	-	-	3659.73
				05/27/2016	65.69	-	-	3659.59
				09/09/2016	65.90	-	-	3659.38
				12/06/2016	66.05	-	-	3659.23
				03/06/2017	65.35	-	-	3659.93
				06/08/2017	66.44	-	-	3658.84
				09/12/2017	66.56	-	-	3658.72
				12/13/2017	66.75	-	-	3658.53
				03/22/2018	66.95	-	-	3658.33
				06/12/2018	67.11	-	-	3658.17
				09/12/2018	67.16	-	-	3658.12
				12/10/2018	67.45	-	-	3657.83
				03/14/2019	67.82	-	-	3657.46
				06/11/2019	67.75	-	-	3657.53
				09/23/2019	67.93	-	-	3657.35
				12/09/2019	68.13	-	-	3657.15
MW-18 2"	3724.75	55.8	85.8	03/10/2016	64.80	-	-	3659.95
				05/27/2016	64.63	-	-	3660.12
				09/09/2016	65.12	-	-	3659.63
				12/06/2016	65.29	-	-	3659.46
				03/06/2017	65.49	-	-	3659.26
				06/08/2017	65.69	-	-	3659.06
				09/12/2017	65.83	-	-	3658.92
				12/13/2017	66.00	-	-	3658.75
				03/22/2018	66.18	-	-	3658.57
				06/12/2018	66.34	-	-	3658.41
				09/12/2018	66.40	-	-	3658.35
				12/10/2018	66.65	-	-	3658.10
				03/14/2019	66.84	-	-	3657.91
				06/11/2019	67.00	-	-	3657.75
				09/23/2019	67.17	-	-	3657.58
				12/09/2019	67.35	-	-	3657.40
MW-19 2"	3722.8	60	80	09/12/2018	61.58	-	-	3661.22
				12/10/2018	61.74	-	-	3661.06
				03/14/2019	62.02	-	-	3660.78
				06/11/2019	62.13	-	-	3660.67
				09/23/2019	62.34	-	-	3660.46
				12/09/2019	62.50	-	-	3660.30

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

Table 2 - Groundwater Analytical Data - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

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-1A	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.00220	<0.000238	<0.000238	<0.000243	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	0.00609	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	0.00456	<0.00100	<0.000657	<0.000642	0.00456
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	09/28/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	0.000650	<0.000657	<0.000630	0.000650
MW-2A	09/13/2018	**2.41 D**	**0.808 D**	0.233	0.593	4.04
	12/11/2018	**0.924**	0.169	0.0755	0.191	1.36
	03/18/2019	**1.61**	0.341	0.177	0.403	2.53
	06/12/2019	**2.23**	**0.946**	0.260	**0.670**	4.11
MW-3	03/10/2016	0.00110	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.00500	<0.000238	0.000300 J	<0.000243	-
	09/09/2016	0.0018	<0.000621	<0.000763	<0.000256	-
	12/06/2016	**0.0269**	<0.00100	0.00341	<0.000642	-
	03/07/2017	0.0016 J	<0.000367	<0.000657	<0.000630	0.0016
	06/08/2017	**0.0745**	0.00308	0.00441	0.00267	0.0847
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	0.000910 J	<0.000367	<0.000657	<0.000630	0.000910 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/20/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-7A	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/15/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	06/11/2019	<0.000408	<0.000367	<0.000657	0.000630	0.000630
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/09/2019	<0.000408	0.000880	<0.000657	<0.000630	0.000880
MW-8A	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/15/2019	0.00752	0.0129	0.00952	0.0234	0.0533
	06/11/2019	0.00108	0.00225	0.00232	0.00776	0.0134
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/09/2019	0.000470	0.00159	0.00360	0.00478	0.0104
MW-11A	09/13/2018	**0.215**	<0.000367	0.00629	0.0840	0.305
	12/11/2018	**0.505**	<0.002560	0.0450	0.0355	0.586
	03/18/2019	**2.08**	0.00115	0.366	0.189	2.64

Table 2 - Groundwater Analytical Data - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-12	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.00130	<0.000238	0.000400 J	0.000300 J	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	0.0016 J	<0.00100	<0.000657	<0.000642	0.0016 J
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	0.00176 J	<0.000367	<0.000657	<0.000630	0.00176 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/12/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/25/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	0.000510	<0.000657	<0.000630	0.000510
MW-13	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.00190	<0.000238	0.000400 J	0.000300 J	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	0.00985	<0.00100	<0.000657	<0.000642	0.00985
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/12/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/25/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	0.000450	<0.000657	<0.000630	0.000450
MW-14	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.000800 J	<0.000238	<0.000238	<0.000243	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	0.000760 J	<0.000657	<0.000630	0.000760 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	0.000570	<0.0005	<0.0005	<0.0005	0.000570
	06/11/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367

Table 2 - Groundwater Analytical Data - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-15	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.0014	<0.000238	<0.000238	<0.000243	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/15/2019	0.000850	<0.000367	<0.000657	<0.00063	0.000850
	06/12/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/25/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
MW-16	03/10/2016	<0.000223	0.000300 J	<0.000238	<0.000243	-
	05/27/2016	0.000800 J	<0.000238	<0.000238	<0.000243	-
	09/09/2016	0.000700 J	<0.000621	<0.000763	<0.000256	-
	12/06/2016	0.00268	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	0.00135 J	<0.00100	<0.000657	<0.000642	0.00135 J
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	0.000740 J	<0.000657	<0.000630	0.000740 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	0.00249	<0.0005	0.000550	<0.0005	0.00304
	06/12/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/09/2019	<0.000408	0.000490	<0.000657	<0.000630	0.000490
MW-17	03/10/2016	<0.000223	0.000500 J	<0.000238	<0.000243	-
	05/27/2016	0.0016	<0.000238	0.000300 J	<0.000243	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	0.00466	<0.00100	<0.000657	<0.000642	0.00466
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	0.000780	<0.0005	<0.0005	<0.0005	0.000780
	06/11/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/25/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	0.000470	<0.000657	<0.000630	0.000470

Table 2 - Groundwater Analytical Data - Historical
Kimbrough Sweet 8 inch
Hobbs, NM
SRS#: 2000-10757

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-18	03/10/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/27/2016	0.0016	<0.000238	<0.000238	<0.000243	-
	09/09/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/06/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/07/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/08/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/19/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/22/2018	<0.000408	0.000710 J	<0.000657	<0.000630	0.000710 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/18/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	06/12/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/25/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/10/2019	<0.000408	0.000380	<0.000657	<0.000630	0.000380
MW-19	09/13/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/15/2019	0.00123	0.00490	0.00227	0.00763	0.0160
	06/11/2019	0.000690	<0.000367	<0.000657	<0.00063	0.000690
	09/24/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	12/09/2019	<0.000408	0.000610	<0.000657	<0.000630	0.000610

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
Kimbrough Sweet 8 inch
Hobbs, NM

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-1A	03/10/2016	<0.0000365	<0.0000638	<0.0000353	<0.0000792	<0.0000459	<0.0000780	<0.0000570	<0.0000616	<0.0000891	<0.0000618	<0.0000667	<0.0000701	<0.0000866	<0.0000590	<0.0000721	<0.0000567	<0.0000456
MW-2A	03/18/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	0.000458	<0.0000090	0.000246	<0.0000049	0.00493	0.000101	<0.0000092
MW-7A	03/15/2019	<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	0.000114	<0.0000056	<0.0000093
MW-8A	03/15/2019	<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	0.0000310	<0.0000055	<0.0000092
MW-11A	03/18/2019	0.000112	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	0.000527	<0.0000090	0.000180	<0.0000049	0.00669	0.000149	<0.0000092
MW-12	03/22/2018	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112	<0.000112
	03/18/2019	<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	0.0000651	<0.0000055	<0.0000092
MW-16	03/10/2016	<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
	03/22/2018	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111
	03/18/2019	<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	0.0000557	<0.0000055	<0.0000092
MW-17	03/10/2016	<0.0000357	<0.0000624	<0.0000345	<0.0000775	<0.0000449	<0.0000763	<0.0000558	<0.0000603	<0.0000872	<0.0000604	<0.0000652	<0.0000686	<0.0000847	<0.0000577	<0.0000705	<0.0000555	<0.0000446
	03/22/2018	<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
	03/18/2019	<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	0.0000363	<0.0000056	<0.0000094
MW-18	03/10/2016	<0.0000373	<0.0000653	<0.0000361	<0.0000810	<0.0000470	<0.0000798	<0.0000583	<0.0000630	<0.0000912	<0.0000632	<0.0000682	<0.0000717	<0.0000886	<0.0000604	<0.0000737	<0.0000580	<0.0000466
	03/22/2018	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111	<0.000111
	03/18/2019	<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-19	03/15/2019	<0.00000410	<0.00000740	<0.00000740	<0.00000640	<0.00000970	<0.00000920	<0.00000800	<0.00000790	<0.00000890	<0.00000500	0.000146	<0.00000910	0.000235	<0.00000500	0.000585	0.000323	<0.00000930

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 617906

for

Talon LPE

Project Manager: David Adkins

Kimbrough

700376.050.11

03.26.2019

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)

03.26.2019

Project Manager: **David Adkins**
Talon LPE
921 N Bivins St
Amarillo, TX 79107-0749

Reference: XENCO Report No(s): **617906**
Kimbrough
Project Address:

David Adkins:

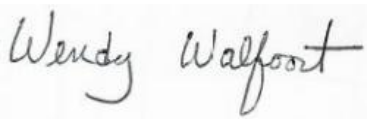
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 617906. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory 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. 617906 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
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 617906

Talon LPE, Amarillo, TX

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-8A	W	03.15.2019 13:30		617906-001
MW-15	W	03.15.2019 15:35		617906-002
MW-19	W	03.15.2019 14:15		617906-003
MW-7A	W	03.15.2019 14:10		617906-004

CASE NARRATIVE

Client Name: Talon LPE

Project Name: Kimbrough

Project ID:	*700376.050.11*	Report Date:	*03.26.2019*
Work Order Number(s):	*617906*	Date Received:	*03.18.2019*

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
617906

Talon LPE, Amarillo, TX
Kimbrough

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

Lab Sample Id: 617906-001 Date Collected: 03.15.2019 13:30 Date Received: 03.18.2019 07:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3082718 Date Prep: 03.19.2019 13:18

Subcontractor: SUB: T104704215-19-29 Prep seq: 7673759

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.20.2019 12:27	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.20.2019 12:27	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.20.2019 12:27	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.20.2019 12:27	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.20.2019 12:27	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.20.2019 12:27	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.20.2019 12:27	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.20.2019 12:27	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.20.2019 12:27	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.20.2019 12:27	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.20.2019 12:27	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.20.2019 12:27	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.20.2019 12:27	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.20.2019 12:27	U	1
Naphthalene	91-20-3	**0.0000310**	0.000500	0.00000451	mg/L	03.20.2019 12:27	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.20.2019 12:27	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.20.2019 12:27	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	74	41 - 128	%		
2-Fluorobiphenyl	74	55 - 135	%		
Terphenyl-D14	92	54 - 131	%		

Certificate of Analytical Results
617906
Talon LPE, Amarillo, TX
Kimbrough

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

Lab Sample Id: 617906-001 Date Collected: 03.15.2019 13:30 Date Received: 03.18.2019 07:45

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

Analyst: SCM % Moist: Tech: SCM

Seq Number: 3083323 Date Prep: 03.24.2019 13:15

Prep seq: 7674309

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00752**	0.00200	0.000408	mg/L	03.25.2019 19:34		1
Toluene	108-88-3	**0.0129**	0.00200	0.000367	mg/L	03.25.2019 19:34		1
Ethylbenzene	100-41-4	**0.00952**	0.00200	0.000657	mg/L	03.25.2019 19:34		1
m_p-Xylenes	179601-23-1	**0.0162**	0.00400	0.000630	mg/L	03.25.2019 19:34		1
o-Xylene	95-47-6	**0.00718**	0.00200	0.000642	mg/L	03.25.2019 19:34		1
Xylenes, Total	1330-20-7	**0.0234**		0.000630	mg/L	03.25.2019 19:34		
Total BTEX		**0.0533**		0.000367	mg/L	03.25.2019 19:34		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	118	70 - 130	%		
4-Bromofluorobenzene	111	70 - 130	%		

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

Lab Sample Id: 617906-002 Date Collected: 03.15.2019 15:35 Date Received: 03.18.2019 07:45

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

Analyst: SCM % Moist: Tech: SCM

Seq Number: 3083323 Date Prep: 03.24.2019 13:15

Prep seq: 7674309

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000850**	0.00200	0.000408	mg/L	03.25.2019 19:53	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.25.2019 19:53	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.25.2019 19:53	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.25.2019 19:53	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.25.2019 19:53	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.25.2019 19:53	U	
Total BTEX		**0.000850**		0.000367	mg/L	03.25.2019 19:53	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

Certificate of Analytical Results
617906

Talon LPE, Amarillo, TX
Kimbrough

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

Lab Sample Id: 617906-003 Date Collected: 03.15.2019 14:15 Date Received: 03.18.2019 07:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3082718 Date Prep: 03.19.2019 13:21

Subcontractor: SUB: T104704215-19-29 Prep seq: 7673759

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000505	0.00000412	mg/L	03.20.2019 13:03	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.20.2019 13:03	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.20.2019 13:03	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.20.2019 13:03	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.20.2019 13:03	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.20.2019 13:03	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000505	0.00000804	mg/L	03.20.2019 13:03	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.20.2019 13:03	U	1
Chrysene	218-01-9	<0.00000890	0.0000505	0.00000889	mg/L	03.20.2019 13:03	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.20.2019 13:03	U	1
Dibenzofuran	132-64-9	**0.000146**	0.0000505	0.00000536	mg/L	03.20.2019 13:03		1
Fluoranthene	206-44-0	<0.00000910	0.0000505	0.00000905	mg/L	03.20.2019 13:03	U	1
Fluorene	86-73-7	**0.000235**	0.0000505	0.00000551	mg/L	03.20.2019 13:03		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.20.2019 13:03	U	1
Naphthalene	91-20-3	**0.000585**	0.000505	0.00000455	mg/L	03.20.2019 13:03		1
Phenanthrene	85-01-8	**0.000323**	0.0000505	0.00000556	mg/L	03.20.2019 13:03		1
Pyrene	129-00-0	<0.00000930	0.0000505	0.00000929	mg/L	03.20.2019 13:03	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	77	41 - 128	%		
2-Fluorobiphenyl	73	55 - 135	%		
Terphenyl-D14	92	54 - 131	%		

Certificate of Analytical Results
617906

Talon LPE, Amarillo, TX
Kimbrough

Sample Id:	**MW-19**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	617906-003	Date Collected:	03.15.2019 14:15	Date Received:	03.18.2019 07:45
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	SCM	% Moist:		Tech:	SCM
Seq Number:	3083323	Date Prep:	03.24.2019 13:15		
		Prep seq:	7674309		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00123**	0.00200	0.000408	mg/L	03.25.2019 20:12	J	1
Toluene	108-88-3	**0.00490**	0.00200	0.000367	mg/L	03.25.2019 20:12		1
Ethylbenzene	100-41-4	**0.00227**	0.00200	0.000657	mg/L	03.25.2019 20:12		1
m_p-Xylenes	179601-23-1	**0.00544**	0.00400	0.000630	mg/L	03.25.2019 20:12		1
o-Xylene	95-47-6	**0.00219**	0.00200	0.000642	mg/L	03.25.2019 20:12		1
Xylenes, Total	1330-20-7	**0.00763**		0.000630	mg/L	03.25.2019 20:12		
Total BTEX		**0.0160**		0.000367	mg/L	03.25.2019 20:12		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

Certificate of Analytical Results
617906

Talon LPE, Amarillo, TX
Kimbrough

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

Lab Sample Id: 617906-004 Date Collected: 03.15.2019 14:10 Date Received: 03.18.2019 07:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3082718 Date Prep: 03.19.2019 13:24

Subcontractor: SUB: T104704215-19-29 Prep seq: 7673759

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000505	0.00000412	mg/L	03.20.2019 13:21	U	1
Acenaphthylene	208-96-8	<0.00000740	0.0000505	0.00000738	mg/L	03.20.2019 13:21	U	1
Anthracene	120-12-7	<0.00000770	0.0000505	0.00000765	mg/L	03.20.2019 13:21	U	1
Benzo(a)anthracene	56-55-3	<0.00000640	0.0000505	0.00000638	mg/L	03.20.2019 13:21	U	1
Benzo(a)pyrene	50-32-8	<0.00000970	0.0000505	0.00000965	mg/L	03.20.2019 13:21	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000920	0.0000505	0.00000916	mg/L	03.20.2019 13:21	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000505	0.00000804	mg/L	03.20.2019 13:21	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000790	0.0000505	0.00000787	mg/L	03.20.2019 13:21	U	1
Chrysene	218-01-9	<0.00000890	0.0000505	0.00000889	mg/L	03.20.2019 13:21	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000505	0.00000500	mg/L	03.20.2019 13:21	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000505	0.00000536	mg/L	03.20.2019 13:21	U	1
Fluoranthene	206-44-0	<0.00000910	0.0000505	0.00000905	mg/L	03.20.2019 13:21	U	1
Fluorene	86-73-7	<0.00000550	0.0000505	0.00000551	mg/L	03.20.2019 13:21	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000505	0.00000500	mg/L	03.20.2019 13:21	U	1
Naphthalene	91-20-3	**0.000114**	0.000505	0.00000455	mg/L	03.20.2019 13:21	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000505	0.00000556	mg/L	03.20.2019 13:21	U	1
Pyrene	129-00-0	<0.00000930	0.0000505	0.00000929	mg/L	03.20.2019 13:21	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	85	41 - 128	%		
2-Fluorobiphenyl	86	55 - 135	%		
Terphenyl-D14	100	54 - 131	%		

Certificate of Analytical Results
617906

Talon LPE, Amarillo, TX
Kimbrough

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

Lab Sample Id: 617906-004 Date Collected: 03.15.2019 14:10 Date Received: 03.18.2019 07:45

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

Analyst: SCM % Moist: Tech: SCM

Seq Number: 3083323 Date Prep: 03.24.2019 13:15

Prep seq: 7674309

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.25.2019 20:32	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.25.2019 20:32	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.25.2019 20:32	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.25.2019 20:32	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.25.2019 20:32	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.25.2019 20:32	U	
Total BTEX		<0.000367		0.000367	mg/L	03.25.2019 20:32	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	116	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

Certificate of Analytical Results
617906

Talon LPE, Amarillo, TX
Kimbrough

Sample Id:	**7673759-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7673759-1-BLK	Date Collected:		Date Received:	
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3082718	Date Prep:	03.18.2019 14:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7673759		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.18.2019 20:21	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.18.2019 20:21	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.18.2019 20:21	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.18.2019 20:21	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.18.2019 20:21	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.18.2019 20:21	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.18.2019 20:21	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.18.2019 20:21	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.18.2019 20:21	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.18.2019 20:21	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.18.2019 20:21	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.18.2019 20:21	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.18.2019 20:21	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.18.2019 20:21	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.18.2019 20:21	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.18.2019 20:21	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.18.2019 20:21	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	89	41 - 128	%		
2-Fluorobiphenyl	84	55 - 135	%		
Terphenyl-D14	105	54 - 131	%		

Certificate of Analytical Results
617906
Talon LPE, Amarillo, TX
Kimbrough

Sample Id: **7674309-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674309-1-BLK Date Collected: Date Received:

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

Analyst: SCM % Moist: Tech: SCM

Seq Number: 3083323 Date Prep: 03.24.2019 13:15

Prep seq: 7674309

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.25.2019 10:35	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.25.2019 10:35	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.25.2019 10:35	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.25.2019 10:35	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.25.2019 10:35	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	115	70 - 130	%		
4-Bromofluorobenzene	111	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: Kimbrough

Work Orders : 617906 **Project ID:** 700376.050.11

Lab Batch #: 3083323 **Sample:** 7674309-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 09:01 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	70-130	
4-Bromofluorobenzene	0.0307	0.0300	102	70-130	

Lab Batch #: 3083323 **Sample:** 7674309-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 09:20 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

Lab Batch #: 3083323 **Sample:** 617905-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.25.2019 09:39 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	70-130	
4-Bromofluorobenzene	0.0306	0.0300	102	70-130	

Lab Batch #: 3083323 **Sample:** 617905-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.25.2019 09:58 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3083323 **Sample:** 7674309-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 10:35 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	70-130	
4-Bromofluorobenzene	0.0333	0.0300	111	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.

Form 2 - Surrogate Recoveries

Project Name: Kimbrough

Work Orders : 617906 **Project ID:** 700376.050.11

Lab Batch #: 3082718 **Sample:** 7673759-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.18.2019 20:21 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.886	1.00	89	41-128	
2-Fluorobiphenyl	0.841	1.00	84	55-135	
Terphenyl-D14	1.05	1.00	105	54-131	

Lab Batch #: 3082718 **Sample:** 7673759-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.18.2019 20:39 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.894	1.00	89	41-128	
2-Fluorobiphenyl	0.844	1.00	84	55-135	
Terphenyl-D14	1.06	1.00	106	54-131	

Lab Batch #: 3082718 **Sample:** 7673759-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.18.2019 20:57 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.978	1.00	98	41-128	
2-Fluorobiphenyl	1.05	1.00	105	55-135	
Terphenyl-D14	1.05	1.00	105	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: Kimbrough

Work Order #: 617906 **Project ID:** 700376.050.11

Analyst: SCM **Date Prepared:** 03.24.2019 **Date Analyzed:** 03.25.2019

Lab Batch ID: 3083323 **Sample:** 7674309-1-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	0.0932	93	0.100	0.0863	86	8	70-130	25	
Toluene	<0.000367	0.100	0.103	103	0.100	0.0986	99	4	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0881	88	0.100	0.0857	86	3	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.171	86	0.200	0.171	86	0	70-130	25	
o-Xylene	<0.000642	0.100	0.0870	87	0.100	0.0878	88	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

BS / BSD Recoveries

Project Name: Kimbrough

Work Order #: 617906 **Project ID:** 700376.050.11

Analyst: EKL **Date Prepared:** 03.18.2019 **Date Analyzed:** 03.18.2019

Lab Batch ID: 3082718 **Sample:** 7673759-1-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	0.000780	78	0.00100	0.000918	92	16	37-117	25	
Acenaphthylene	<0.00000730	0.00100	0.000784	78	0.00100	0.000914	91	15	37-119	25	
Anthracene	<0.00000760	0.00100	0.000834	83	0.00100	0.000923	92	10	45-121	25	
Benzo(a)anthracene	<0.00000630	0.00100	0.000922	92	0.00100	0.000962	96	4	51-113	25	
Benzo(a)pyrene	<0.00000960	0.00100	0.00102	102	0.00100	0.000999	100	2	45-127	25	
Benzo(b)fluoranthene	<0.00000910	0.00100	0.000958	96	0.00100	0.000994	99	4	56-110	25	
Benzo(g,h,i)perylene	<0.00000800	0.00100	0.000807	81	0.00100	0.000759	76	6	47-122	25	
Benzo(k)fluoranthene	<0.00000780	0.00100	0.00104	104	0.00100	0.00108	108	4	58-123	25	
Chrysene	<0.00000880	0.00100	0.000896	90	0.00100	0.000929	93	4	52-113	25	
Dibenz(a,h)anthracene	<0.00000500	0.00100	0.000795	80	0.00100	0.000826	83	4	48-126	25	
Dibenzofuran	<0.00000530	0.00100	0.000778	78	0.00100	0.000926	93	17	38-118	25	
Fluoranthene	<0.00000900	0.00100	0.000939	94	0.00100	0.00101	101	7	51-124	25	
Fluorene	<0.00000550	0.00100	0.000784	78	0.00100	0.000907	91	15	42-116	25	
Indeno(1,2,3-c,d)Pyrene	<0.00000500	0.00100	0.000799	80	0.00100	0.000818	82	2	48-123	25	
Naphthalene	<0.00000450	0.00100	0.000773	77	0.00100	0.000892	89	14	35-116	25	
Phenanthrene	<0.00000550	0.00100	0.000838	84	0.00100	0.000934	93	11	46-113	25	
Pyrene	<0.00000920	0.00100	0.000970	97	0.00100	0.00101	101	4	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 / MSD Recoveries

Project Name: Kimbrough

Work Order # : 617906 **Project ID:** 700376.050.11

Lab Batch ID: 3083323 **QC- Sample ID:** 617905-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 03.25.2019 **Date Prepared:** 03.24.2019 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.122	122	0.100	0.121	121	1	70-130	25	
Toluene	<0.000367	0.100	0.118	118	0.100	0.113	113	4	70-130	25	
Ethylbenzene	<0.000657	0.100	0.101	101	0.100	0.0958	96	5	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.191	96	0.200	0.181	91	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0961	96	0.100	0.0919	92	4	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

Work Order No: 617906

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 1

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 #
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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
P.O. Number:	SRS # 2000-10757	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.9	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-8A	GW	3/15/19	1:30pm	N/A	4	X	X
MW-15	"	"	3:35pm		3	X	
MW-19			2:15pm		4	X	X
MW-7A			2:10pm		4	X	X

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 Michael Collier	Brittany Cox	3/15/19 4:15	2 Brittany Cox		3/18/19 0745
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

4715 7570 1050

Final 1.000

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Inter-Office Shipment

IOS Number : 124692

Date/Time: 03/18/19 11:37
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 774733822498

Please send report to: Wendy Walfoort
Address: 1211 W. Florida Ave
E-Mail: wendy.walfoort@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
617906-001	W	MW-8A	03/15/19 13:30	SIM_PAH_D	PAHs by 8270D SIM	03/22/19	**03/22/19 13:30**	WEW	ACNP ACNPY ANTH BZ/	
617906-003	W	MW-19	03/15/19 14:15	SIM_PAH_D	PAHs by 8270D SIM	03/22/19	**03/22/19 14:15**	WEW	ACNP ACNPY ANTH BZ/	
617906-004	W	MW-7A	03/15/19 14:10	SIM_PAH_D	PAHs by 8270D SIM	03/22/19	**03/22/19 14:10**	WEW	ACNP ACNPY ANTH BZ/	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03/18/2019

Received By: Travis Simmons
Travis Simmons

Date Received: 03/19/2019 09:10

Cooler Temperature: 0.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 124692

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

Sent By: Brianna Teel **Date Sent:** 03/18/2019 11:37 AM

Received By: Travis Simmons **Date Received:** 03/19/2019 09:10 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.9	
#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: Travis Simmons Date: 03/19/2019

Travis Simmons

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 03/18/2019 07:45:00 AM

Work Order #: 617906

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)?	2.9	
#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#: A032690

Checklist completed by: Brianna Teel Date: 03/18/2019

Brianna Teel

Checklist reviewed by: Wendy Walfoort Date: 03/19/2019

Wendy Walfoort

Analytical Report 618258

for

Talon/LPE Co.

Project Manager: David Adkins

Kimbrough

700376.050.11

04.01.2019

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)

04.01.2019

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

Reference: XENCO Report No(s): **618258**
Kimbrough
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) 618258. 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. 618258 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 618258

Talon/LPE Co., Amarillo, TX

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2A	W	03.18.2019 12:00		618258-001
MW-11A	W	03.18.2019 12:40		618258-002
MW-16	W	03.18.2019 13:25		618258-003
MW-12	W	03.18.2019 14:15		618258-004
MW-14	W	03.18.2019 14:20		618258-005
MW-17	W	03.18.2019 15:15		618258-006
MW-13	W	03.18.2019 15:35		618258-007
MW-18	W	03.18.2019 16:00		618258-008

CASE NARRATIVE

Client Name: Talon/LPE Co.

Project Name: Kimbrough

Project ID:	*700376.050.11*	Report Date:	*04.01.2019*
Work Order Number(s):	*618258*	Date Received:	*03.20.2019*

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:

Revised report with MW-2A corrected results. MW-2A extracted out of hold.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id: **MW-2A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 618258-001 Date Collected: 03.18.2019 12:00 Date Received: 03.20.2019 12:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083852 Date Prep: 03.28.2019 09:48

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 19:47	UK	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.28.2019 19:47	UK	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.28.2019 19:47	UK	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.28.2019 19:47	UK	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.28.2019 19:47	UK	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.28.2019 19:47	UK	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.28.2019 19:47	UK	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.28.2019 19:47	UK	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.28.2019 19:47	UK	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.28.2019 19:47	UK	1
Dibenzofuran	132-64-9	**0.000458**	0.0000500	0.00000530	mg/L	03.28.2019 19:47	K	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.28.2019 19:47	UK	1
Fluorene	86-73-7	**0.000246**	0.0000500	0.00000546	mg/L	03.28.2019 19:47	K	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.28.2019 19:47	UK	1
Naphthalene	91-20-3	**0.00493**	0.000500	0.00000451	mg/L	03.28.2019 19:47	K	1
Phenanthrene	85-01-8	**0.000101**	0.0000500	0.00000550	mg/L	03.28.2019 19:47	K	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.28.2019 19:47	UK	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	56	41 - 128	%		
2-Fluorobiphenyl	60	55 - 135	%		
Terphenyl-D14	106	54 - 131	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id:	**MW-2A**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	618258-001	Date Collected:	03.18.2019 12:00	Date Received:	03.20.2019 12:45
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3083271	Date Prep:	03.23.2019 06:00		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674264		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**1.61**	0.0200	0.0100	mg/L	03.26.2019 21:00	D	20
Toluene	108-88-3	**0.341**	0.0200	0.0100	mg/L	03.26.2019 21:00	D	20
Ethylbenzene	100-41-4	**0.177**	0.0200	0.0100	mg/L	03.26.2019 21:00	D	20
m,p-Xylenes	179601-23-1	**0.268**	0.00200	0.00100	mg/L	03.23.2019 16:56		1
o-Xylene	95-47-6	**0.135**	0.00100	0.000500	mg/L	03.23.2019 16:56		1
Total Xylenes	1330-20-7	**0.403**		0.000500	mg/L	03.23.2019 16:56		
Total BTEX		**2.53**		0.000500	mg/L	03.26.2019 21:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	94	75 - 131	%		
1,2-Dichloroethane-D4	82	63 - 144	%		
Toluene-D8	103	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-002 Date Collected: 03.18.2019 12:40 Date Received: 03.20.2019 12:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083466 Date Prep: 03.25.2019 14:42

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674277

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	**0.000112**	0.0000500	0.00000408	mg/L	03.25.2019 22:26		1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.25.2019 22:26	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.25.2019 22:26	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.25.2019 22:26	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.25.2019 22:26	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.25.2019 22:26	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.25.2019 22:26	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.25.2019 22:26	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.25.2019 22:26	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 22:26	U	1
Dibenzofuran	132-64-9	**0.000527**	0.0000500	0.00000530	mg/L	03.25.2019 22:26		1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.25.2019 22:26	U	1
Fluorene	86-73-7	**0.000180**	0.0000500	0.00000546	mg/L	03.25.2019 22:26		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 22:26	U	1
Naphthalene	91-20-3	**0.00669**	0.000500	0.00000451	mg/L	03.25.2019 22:26		1
Phenanthrene	85-01-8	**0.000149**	0.0000500	0.00000550	mg/L	03.25.2019 22:26		1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.25.2019 22:26	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	50	41 - 128	%		
2-Fluorobiphenyl	56	55 - 135	%		
Terphenyl-D14	64	54 - 131	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-002 Date Collected: 03.18.2019 12:40 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083271 Date Prep: 03.23.2019 06:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.08**	0.0250	0.0125	mg/L	03.26.2019 21:18	D	25
Toluene	108-88-3	**0.00115**	0.00100	0.000500	mg/L	03.23.2019 15:08		1
Ethylbenzene	100-41-4	**0.366**	0.0250	0.0125	mg/L	03.26.2019 21:18	D	25
m,p-Xylenes	179601-23-1	**0.167**	0.00200	0.00100	mg/L	03.23.2019 15:08		1
o-Xylene	95-47-6	**0.0221**	0.00100	0.000500	mg/L	03.23.2019 15:08		1
Total Xylenes	1330-20-7	**0.189**		0.000500	mg/L	03.23.2019 15:08		
Total BTEX		**2.64**		0.000500	mg/L	03.26.2019 21:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	97	75 - 131	%		
1,2-Dichloroethane-D4	83	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-003 Date Collected: 03.18.2019 13:25 Date Received: 03.20.2019 12:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083466 Date Prep: 03.25.2019 14:45

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674277

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.25.2019 22:44	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.25.2019 22:44	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.25.2019 22:44	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.25.2019 22:44	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.25.2019 22:44	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.25.2019 22:44	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.25.2019 22:44	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.25.2019 22:44	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.25.2019 22:44	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 22:44	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.25.2019 22:44	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.25.2019 22:44	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.25.2019 22:44	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 22:44	U	1
Naphthalene	91-20-3	**0.0000557**	0.000500	0.00000451	mg/L	03.25.2019 22:44	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.25.2019 22:44	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.25.2019 22:44	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	59	41 - 128	%		
2-Fluorobiphenyl	66	55 - 135	%		
Terphenyl-D14	75	54 - 131	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-003 Date Collected: 03.18.2019 13:25 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083491 Date Prep: 03.26.2019 09:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674395

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00249**	0.00100	0.000500	mg/L	03.26.2019 19:31		1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:31	U	1
Ethylbenzene	100-41-4	**0.000550**	0.00100	0.000500	mg/L	03.26.2019 19:31	J	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.26.2019 19:31	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:31	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.26.2019 19:31	U	
Total BTEX		**0.00304**		0.000500	mg/L	03.26.2019 19:31		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	95	75 - 131	%		
1,2-Dichloroethane-D4	98	63 - 144	%		
Toluene-D8	105	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id:	**MW-12**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	618258-004	Date Collected:	03.18.2019 14:15	Date Received:	03.20.2019 12:45
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083466	Date Prep:	03.25.2019 14:48		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674277		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.25.2019 23:02	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.25.2019 23:02	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.25.2019 23:02	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.25.2019 23:02	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.25.2019 23:02	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.25.2019 23:02	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.25.2019 23:02	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.25.2019 23:02	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.25.2019 23:02	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 23:02	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.25.2019 23:02	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.25.2019 23:02	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.25.2019 23:02	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 23:02	U	1
Naphthalene	91-20-3	**0.0000651**	0.000500	0.00000451	mg/L	03.25.2019 23:02	J	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.25.2019 23:02	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.25.2019 23:02	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	74	41 - 128	%		
2-Fluorobiphenyl	81	55 - 135	%		
Terphenyl-D14	98	54 - 131	%		

Certificate of Analytical Results
618258
Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-004 Date Collected: 03.18.2019 14:15 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083491 Date Prep: 03.26.2019 09:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674395

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:49	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:49	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:49	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.26.2019 19:49	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.26.2019 19:49	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.26.2019 19:49	U	
Total BTEX		<0.000500		0.000500	mg/L	03.26.2019 19:49	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	98	75 - 131	%		
1,2-Dichloroethane-D4	104	63 - 144	%		
Toluene-D8	105	80 - 117	%		

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

Lab Sample Id: 618258-005 Date Collected: 03.18.2019 14:20 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083271 Date Prep: 03.23.2019 06:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000570**	0.00100	0.000500	mg/L	03.26.2019 17:26	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:02	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:02	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.23.2019 16:02	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:02	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.23.2019 16:02	U	
Total BTEX		**0.000570**		0.000500	mg/L	03.26.2019 17:26	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	95	75 - 131	%		
1,2-Dichloroethane-D4	104	63 - 144	%		
Toluene-D8	107	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-006 Date Collected: 03.18.2019 15:15 Date Received: 03.20.2019 12:45

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083466 Date Prep: 03.25.2019 14:51

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674277

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000420	0.0000510	0.00000417	mg/L	03.25.2019 23:20	U	1
Acenaphthylene	208-96-8	<0.00000750	0.0000510	0.00000746	mg/L	03.25.2019 23:20	U	1
Anthracene	120-12-7	<0.00000770	0.0000510	0.00000773	mg/L	03.25.2019 23:20	U	1
Benzo(a)anthracene	56-55-3	<0.00000650	0.0000510	0.00000645	mg/L	03.25.2019 23:20	U	1
Benzo(a)pyrene	50-32-8	<0.00000980	0.0000510	0.00000975	mg/L	03.25.2019 23:20	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000930	0.0000510	0.00000926	mg/L	03.25.2019 23:20	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000810	0.0000510	0.00000813	mg/L	03.25.2019 23:20	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000800	0.0000510	0.00000795	mg/L	03.25.2019 23:20	U	1
Chrysene	218-01-9	<0.00000900	0.0000510	0.00000898	mg/L	03.25.2019 23:20	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000510	0.0000510	0.00000505	mg/L	03.25.2019 23:20	U	1
Dibenzofuran	132-64-9	<0.00000540	0.0000510	0.00000541	mg/L	03.25.2019 23:20	U	1
Fluoranthene	206-44-0	<0.00000920	0.0000510	0.00000915	mg/L	03.25.2019 23:20	U	1
Fluorene	86-73-7	<0.00000560	0.0000510	0.00000557	mg/L	03.25.2019 23:20	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000510	0.0000510	0.00000505	mg/L	03.25.2019 23:20	U	1
Naphthalene	91-20-3	**0.0000363**	0.000510	0.00000460	mg/L	03.25.2019 23:20	J	1
Phenanthrene	85-01-8	<0.00000560	0.0000510	0.00000562	mg/L	03.25.2019 23:20	U	1
Pyrene	129-00-0	<0.00000940	0.0000510	0.00000939	mg/L	03.25.2019 23:20	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	67	41 - 128	%		
2-Fluorobiphenyl	76	55 - 135	%		
Terphenyl-D14	84	54 - 131	%		

Certificate of Analytical Results
618258
Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-006 Date Collected: 03.18.2019 15:15 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083271 Date Prep: 03.23.2019 06:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000780**	0.00100	0.000500	mg/L	03.26.2019 17:44	J	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:20	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:20	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.23.2019 16:20	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:20	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.23.2019 16:20	U	
Total BTEX		**0.000780**		0.000500	mg/L	03.26.2019 17:44	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	94	75 - 131	%		
1,2-Dichloroethane-D4	101	63 - 144	%		
Toluene-D8	107	80 - 117	%		

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

Lab Sample Id: 618258-007 Date Collected: 03.18.2019 15:35 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083271 Date Prep: 03.23.2019 06:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:38	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:38	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:38	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.23.2019 16:38	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.23.2019 16:38	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.23.2019 16:38	U	
Total BTEX		<0.000500		0.000500	mg/L	03.23.2019 16:38	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	97	75 - 131	%		
1,2-Dichloroethane-D4	103	63 - 144	%		
Toluene-D8	106	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id:	**MW-18**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	618258-008	Date Collected:	03.18.2019 16:00	Date Received:	03.20.2019 12:45
Analytical Method:	PAHs by 8270D SIM			Prep Method:	3510C
Analyst:	EKL	% Moist:		Tech:	EKL
Seq Number:	3083466	Date Prep:	03.25.2019 14:54		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674277		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.25.2019 23:38	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.25.2019 23:38	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.25.2019 23:38	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.25.2019 23:38	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.25.2019 23:38	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.25.2019 23:38	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.25.2019 23:38	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.25.2019 23:38	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.25.2019 23:38	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 23:38	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.25.2019 23:38	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.25.2019 23:38	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.25.2019 23:38	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 23:38	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.25.2019 23:38	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.25.2019 23:38	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.25.2019 23:38	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	75	41 - 128	%		
2-Fluorobiphenyl	89	55 - 135	%		
Terphenyl-D14	95	54 - 131	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618258-008 Date Collected: 03.18.2019 16:00 Date Received: 03.20.2019 12:45

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083491 Date Prep: 03.26.2019 09:50

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674395

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.26.2019 20:07	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.26.2019 20:07	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.26.2019 20:07	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.26.2019 20:07	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.26.2019 20:07	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.26.2019 20:07	U	
Total BTEX		<0.000500		0.000500	mg/L	03.26.2019 20:07	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	97	75 - 131	%		
1,2-Dichloroethane-D4	99	63 - 144	%		
Toluene-D8	106	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id: **7674264-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674264-1-BLK Date Collected: Date Received:

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083271 Date Prep: 03.23.2019 06:00

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.23.2019 10:40	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.23.2019 10:40	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.23.2019 10:40	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.23.2019 10:40	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.23.2019 10:40	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	93	75 - 131	%		
1,2-Dichloroethane-D4	99	63 - 144	%		
Toluene-D8	105	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id: **7674277-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674277-1-BLK Date Collected: Date Received:

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

Analyst: EKL % Moist: Tech: EKL

Seq Number: 3083466 Date Prep: 03.25.2019 14:30

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674277

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Acenaphthene	83-32-9	<0.00000410	0.0000500	0.00000408	mg/L	03.25.2019 17:56	U	1
Acenaphthylene	208-96-8	<0.00000730	0.0000500	0.00000731	mg/L	03.25.2019 17:56	U	1
Anthracene	120-12-7	<0.00000760	0.0000500	0.00000757	mg/L	03.25.2019 17:56	U	1
Benzo(a)anthracene	56-55-3	<0.00000630	0.0000500	0.00000632	mg/L	03.25.2019 17:56	U	1
Benzo(a)pyrene	50-32-8	<0.00000960	0.0000500	0.00000955	mg/L	03.25.2019 17:56	U	1
Benzo(b)fluoranthene	205-99-2	<0.00000910	0.0000500	0.00000907	mg/L	03.25.2019 17:56	U	1
Benzo(g,h,i)perylene	191-24-2	<0.00000800	0.0000500	0.00000796	mg/L	03.25.2019 17:56	U	1
Benzo(k)fluoranthene	207-08-9	<0.00000780	0.0000500	0.00000779	mg/L	03.25.2019 17:56	U	1
Chrysene	218-01-9	<0.00000880	0.0000500	0.00000880	mg/L	03.25.2019 17:56	U	1
Dibenz(a,h)anthracene	53-70-3	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 17:56	U	1
Dibenzofuran	132-64-9	<0.00000530	0.0000500	0.00000530	mg/L	03.25.2019 17:56	U	1
Fluoranthene	206-44-0	<0.00000900	0.0000500	0.00000896	mg/L	03.25.2019 17:56	U	1
Fluorene	86-73-7	<0.00000550	0.0000500	0.00000546	mg/L	03.25.2019 17:56	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.00000500	0.0000500	0.00000495	mg/L	03.25.2019 17:56	U	1
Naphthalene	91-20-3	<0.00000450	0.000500	0.00000451	mg/L	03.25.2019 17:56	U	1
Phenanthrene	85-01-8	<0.00000550	0.0000500	0.00000550	mg/L	03.25.2019 17:56	U	1
Pyrene	129-00-0	<0.00000920	0.0000500	0.00000920	mg/L	03.25.2019 17:56	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Nitrobenzene-d5	92	41 - 128	%		
2-Fluorobiphenyl	96	55 - 135	%		
Terphenyl-D14	105	54 - 131	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id:	**7674395-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7674395-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by SW 8260B			Prep Method:	5030B
Analyst:	KRP	% Moist:		Tech:	KRP
Seq Number:	3083491	Date Prep:	03.26.2019 09:50		
Subcontractor:	SUB: T104704215-19-29	Prep seq:	7674395		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.26.2019 13:53	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.26.2019 13:53	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.26.2019 13:53	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.26.2019 13:53	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.26.2019 13:53	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	96	75 - 131	%		
1,2-Dichloroethane-D4	104	63 - 144	%		
Toluene-D8	102	80 - 117	%		

Certificate of Analytical Results
618258

Talon/LPE Co., Amarillo, TX
Kimbrough

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	%		

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: Kimbrough

Work Orders : 618258 **Project ID:** 700376.050.11

Lab Batch #: 3083271 **Sample:** 7674264-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2019 09:12 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0455	0.0500	91	75-131	
1,2-Dichloroethane-D4	0.0485	0.0500	97	63-144	
Toluene-D8	0.0519	0.0500	104	80-117	

Lab Batch #: 3083271 **Sample:** 7674264-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2019 09:30 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0470	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0538	0.0500	108	63-144	
Toluene-D8	0.0505	0.0500	101	80-117	

Lab Batch #: 3083271 **Sample:** 618029-007 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2019 09:48 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0465	0.0500	93	75-131	
1,2-Dichloroethane-D4	0.0486	0.0500	97	63-144	
Toluene-D8	0.0522	0.0500	104	80-117	

Lab Batch #: 3083271 **Sample:** 7674264-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.23.2019 10:40 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0466	0.0500	93	75-131	
1,2-Dichloroethane-D4	0.0496	0.0500	99	63-144	
Toluene-D8	0.0524	0.0500	105	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: Kimbrough

Work Orders : 618258 **Project ID:** 700376.050.11

Lab Batch #: 3083491 **Sample:** 7674395-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.26.2019 11:01 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0508	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0520	0.0500	104	63-144	
Toluene-D8	0.0498	0.0500	100	80-117	

Lab Batch #: 3083491 **Sample:** 7674395-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.26.2019 11:28 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0470	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0464	0.0500	93	63-144	
Toluene-D8	0.0512	0.0500	102	80-117	

Lab Batch #: 3083491 **Sample:** 618401-006 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.26.2019 12:22 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0481	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0491	0.0500	98	63-144	
Toluene-D8	0.0498	0.0500	100	80-117	

Lab Batch #: 3083491 **Sample:** 7674395-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.26.2019 13:53 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0478	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0521	0.0500	104	63-144	
Toluene-D8	0.0508	0.0500	102	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: Kimbrough

Work Orders : 618258 **Project ID:** 700376.050.11

Lab Batch #: 3083466 **Sample:** 7674277-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 17:56 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.920	1.00	92	41-128	
2-Fluorobiphenyl	0.957	1.00	96	55-135	
Terphenyl-D14	1.05	1.00	105	54-131	

Lab Batch #: 3083466 **Sample:** 7674277-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 18:14 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.892	1.00	89	41-128	
2-Fluorobiphenyl	0.936	1.00	94	55-135	
Terphenyl-D14	1.02	1.00	102	54-131	

Lab Batch #: 3083466 **Sample:** 7674277-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.25.2019 18:32 **SURROGATE RECOVERY STUDY**

PAHs by 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Nitrobenzene-d5	0.907	1.00	91	41-128	
2-Fluorobiphenyl	0.912	1.00	91	55-135	
Terphenyl-D14	1.01	1.00	101	54-131	

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	

* 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: Kimbrough

Work Orders : 618258 **Project ID:** 700376.050.11

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: Kimbrough

Work Order #: 618258 **Project ID:** 700376.050.11

Analyst: KRP **Date Prepared:** 03.23.2019 **Date Analyzed:** 03.23.2019

Lab Batch ID: 3083271 **Sample:** 7674264-1-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	0.0473	95	0.0500	0.0469	94	1	66-142	20	
Toluene	<0.000500	0.0500	0.0518	104	0.0500	0.0508	102	2	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0519	104	0.0500	0.0503	101	3	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.105	105	0.100	0.102	102	3	75-125	20	
o-Xylene	<0.000500	0.0500	0.0520	104	0.0500	0.0507	101	3	75-125	20	

Analyst: KRP **Date Prepared:** 03.26.2019 **Date Analyzed:** 03.26.2019

Lab Batch ID: 3083491 **Sample:** 7674395-1-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	0.0494	99	0.0500	0.0483	97	2	66-142	20	
Toluene	<0.000500	0.0500	0.0551	110	0.0500	0.0535	107	3	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0543	109	0.0500	0.0545	109	0	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.111	111	0.100	0.113	113	2	75-125	20	
o-Xylene	<0.000500	0.0500	0.0544	109	0.0500	0.0549	110	1	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: Kimbrough

Work Order #: 618258 **Project ID:** 700376.050.11

Analyst: EKL **Date Prepared:** 03.25.2019 **Date Analyzed:** 03.25.2019

Lab Batch ID: 3083466 **Sample:** 7674277-1-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	0.000868	87	0.00100	0.000888	89	2	37-117	25	
Acenaphthylene	<0.00000730	0.00100	0.000864	86	0.00100	0.000878	88	2	37-119	25	
Anthracene	<0.00000760	0.00100	0.000903	90	0.00100	0.000967	97	7	45-121	25	
Benzo(a)anthracene	<0.00000630	0.00100	0.000917	92	0.00100	0.000952	95	4	51-113	25	
Benzo(a)pyrene	<0.00000960	0.00100	0.000929	93	0.00100	0.000960	96	3	45-127	25	
Benzo(b)fluoranthene	<0.00000910	0.00100	0.000951	95	0.00100	0.000983	98	3	56-110	25	
Benzo(g,h,i)perylene	<0.00000800	0.00100	0.000859	86	0.00100	0.000913	91	6	47-122	25	
Benzo(k)fluoranthene	<0.00000780	0.00100	0.000893	89	0.00100	0.000920	92	3	58-123	25	
Chrysene	<0.00000880	0.00100	0.000925	93	0.00100	0.000966	97	4	52-113	25	
Dibenz(a,h)anthracene	<0.00000500	0.00100	0.000915	92	0.00100	0.000960	96	5	48-126	25	
Dibenzofuran	<0.00000530	0.00100	0.000883	88	0.00100	0.000908	91	3	38-118	25	
Fluoranthene	<0.00000900	0.00100	0.000932	93	0.00100	0.000981	98	5	51-124	25	
Fluorene	<0.00000550	0.00100	0.000868	87	0.00100	0.000888	89	2	42-116	25	
Indeno(1,2,3-c,d)Pyrene	<0.00000500	0.00100	0.000907	91	0.00100	0.000953	95	5	48-123	25	
Naphthalene	<0.00000450	0.00100	0.000843	84	0.00100	0.000889	89	5	35-116	25	
Phenanthrene	<0.00000550	0.00100	0.000903	90	0.00100	0.000960	96	6	46-113	25	
Pyrene	<0.00000920	0.00100	0.000964	96	0.00100	0.00100	100	4	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

BS / BSD Recoveries

Project Name: Kimbrough

Work Order #: 618258 **Project ID:** 700376.050.11

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: Kimbrough

Work Order #: 618258

Lab Batch #: 3083271 **Project ID:** 700376.050.11

Date Analyzed: 03.23.2019 **Date Prepared:** 03.23.2019 **Analyst:** KRP

QC- Sample ID: 618029-007 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	0.0563	113	66-142	
Toluene	<0.000500	0.0500	0.0617	123	59-139	
Ethylbenzene	<0.000500	0.0500	0.0613	123	75-125	
m,p-Xylenes	<0.00100	0.100	0.123	123	75-125	
o-Xylene	<0.000500	0.0500	0.0619	124	75-125	

Lab Batch #: 3083491

Date Analyzed: 03.26.2019 **Date Prepared:** 03.26.2019 **Analyst:** KRP

QC- Sample ID: 618401-006 S **Batch #:** 1 **Matrix:** Ground 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	0.0486	97	66-142	
Toluene	<0.000500	0.0500	0.0524	105	59-139	
Ethylbenzene	<0.000500	0.0500	0.0550	110	75-125	
m,p-Xylenes	<0.00100	0.100	0.111	111	75-125	
o-Xylene	<0.000500	0.0500	0.0538	108	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: 618258

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)

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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 #
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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
P.O. Number:	SRS # 2000-10757	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	-0.8/-0.9	Thermometer ID	R8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH
MW-2A	GW	3/18/19	12:00pm	N/A	4	X	X
MW-11A			12:40pm		4	X	X
MW-16			1:25pm		4	X	X
MW-12			2:15pm		4	X	X
MW-14			2:30pm		3	X	
MW-17			3:15pm		4	X	X
MW-13			3:35pm		3	X	

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	Brittany Cox	3/19/19	2 Brittany Cox		3.20.19 1245
3			4		
5			6		

Inter-Office Shipment

IOS Number : 124920

Date/Time: 03/20/19 13:03
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Katie Lowe
Delivery Priority:
Air Bill No.: w774757407483

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
618258-001	W	MW-2A	03/18/19 12:00	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 12:00**	JKR	ACNP ACNPY ANTH BZA	
618258-001	W	MW-2A	03/18/19 12:00	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-002	W	MW-11A	03/18/19 12:40	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 12:40**	JKR	ACNP ACNPY ANTH BZA	
618258-002	W	MW-11A	03/18/19 12:40	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-003	W	MW-16	03/18/19 13:25	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-003	W	MW-16	03/18/19 13:25	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 13:25**	JKR	ACNP ACNPY ANTH BZA	
618258-004	W	MW-12	03/18/19 14:15	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-004	W	MW-12	03/18/19 14:15	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 14:15**	JKR	ACNP ACNPY ANTH BZA	
618258-005	W	MW-14	03/18/19 14:20	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-006	W	MW-17	03/18/19 15:15	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-006	W	MW-17	03/18/19 15:15	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 15:15**	JKR	ACNP ACNPY ANTH BZA	
618258-007	W	MW-13	03/18/19 15:35	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-008	W	MW-18	03/18/19 16:00	SW8260BTX	BTEX by SW 8260B	03/26/19	04/01/19	JKR	BZ BZME EBZ XYLENES	
618258-008	W	MW-18	03/18/19 16:00	SIM_PAH_D	PAHs by 8270D SIM	03/26/19	**03/25/19 16:00**	JKR	ACNP ACNPY ANTH BZA	

Inter Office Shipment or Sample Comments:

Relinquished By: Katie Lowe

Date Relinquished: 03/20/2019

Received By: Monica Shakhshir

Date Received: 03/21/2019 09:30

Cooler Temperature: 1.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 124920

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:** 03/20/2019 01:03 PM

Received By: Monica Shakhshir **Date Received:** 03/21/2019 09:30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: _____ Date: 03/21/2019
Monica Shakhshir

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon/LPE Co.

Date/ Time Received: 03/20/2019 12:45:00 PM

Work Order #: 618258

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)?	-.9	
#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: 03/20/2019

Checklist reviewed by: Jessica Kramer Date: 03/20/2019

Jessica Kramer

Analytical Report 618404

for

Talon/LPE Co.

Project Manager: David Adkins

Kimbrough

700376.050.11

03.30.2019

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)

03.30.2019

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

Reference: XENCO Report No(s): **618404**
Kimbrough
Project Address:

David Adkins:

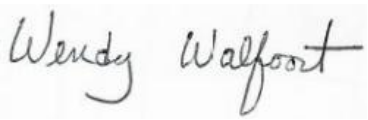
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 618404. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory 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. 618404 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
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 618404

Talon/LPE Co., Amarillo, TX

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3	W	03.20.2019 00:00		618404-001

CASE NARRATIVE

Client Name: Talon/LPE Co.

Project Name: Kimbrough

Project ID:	*700376.050.11*	Report Date:	*03.30.2019*
Work Order Number(s):	*618404*	Date Received:	*03.21.2019*

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
618404

Talon/LPE Co., Amarillo, TX
Kimbrough

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

Lab Sample Id: 618404-001 Date Collected: 03.20.2019 00:00 Date Received: 03.21.2019 11:30

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083674 Date Prep: 03.27.2019 11:10

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674506

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.27.2019 17:43	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.27.2019 17:43	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.27.2019 17:43	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.27.2019 17:43	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.27.2019 17:43	U	1
Total Xylenes	1330-20-7	<0.000500		0.000500	mg/L	03.27.2019 17:43	U	
Total BTEX		<0.000500		0.000500	mg/L	03.27.2019 17:43	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	95	75 - 131	%		
1,2-Dichloroethane-D4	97	63 - 144	%		
Toluene-D8	101	80 - 117	%		

Certificate of Analytical Results
618404

Talon/LPE Co., Amarillo, TX
Kimbrough

Sample Id: **7674506-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7674506-1-BLK Date Collected: Date Received:

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

Analyst: KRP % Moist: Tech: KRP

Seq Number: 3083674 Date Prep: 03.27.2019 11:10

Subcontractor: SUB: T104704215-19-29 Prep seq: 7674506

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000500	0.00100	0.000500	mg/L	03.27.2019 15:38	U	1
Toluene	108-88-3	<0.000500	0.00100	0.000500	mg/L	03.27.2019 15:38	U	1
Ethylbenzene	100-41-4	<0.000500	0.00100	0.000500	mg/L	03.27.2019 15:38	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00200	0.00100	mg/L	03.27.2019 15:38	U	1
o-Xylene	95-47-6	<0.000500	0.00100	0.000500	mg/L	03.27.2019 15:38	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
Dibromofluoromethane	94	75 - 131	%		
1,2-Dichloroethane-D4	102	63 - 144	%		
Toluene-D8	105	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: Kimbrough

Work Orders : 618404 **Project ID:** 700376.050.11

Lab Batch #: 3083674 **Sample:** 7674506-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.27.2019 12:20 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0480	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0475	0.0500	95	63-144	
Toluene-D8	0.0520	0.0500	104	80-117	

Lab Batch #: 3083674 **Sample:** 7674506-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.27.2019 12:38 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0471	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0440	0.0500	88	63-144	
Toluene-D8	0.0506	0.0500	101	80-117	

Lab Batch #: 3083674 **Sample:** 618761-003 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.27.2019 12:56 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0480	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0465	0.0500	93	63-144	
Toluene-D8	0.0507	0.0500	101	80-117	

Lab Batch #: 3083674 **Sample:** 7674506-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.27.2019 15:38 **SURROGATE RECOVERY STUDY**

BTEX by SW 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0468	0.0500	94	75-131	
1,2-Dichloroethane-D4	0.0508	0.0500	102	63-144	
Toluene-D8	0.0524	0.0500	105	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.

BS / BSD Recoveries

Project Name: Kimbrough

Work Order #: 618404 **Project ID:** 700376.050.11

Analyst: KRP **Date Prepared:** 03.27.2019 **Date Analyzed:** 03.27.2019

Lab Batch ID: 3083674 **Sample:** 7674506-1-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	0.0496	99	0.0500	0.0487	97	2	66-142	20	
Toluene	<0.000500	0.0500	0.0556	111	0.0500	0.0549	110	1	59-139	20	
Ethylbenzene	<0.000500	0.0500	0.0562	112	0.0500	0.0566	113	1	75-125	20	
m,p-Xylenes	<0.00100	0.100	0.115	115	0.100	0.111	111	4	75-125	20	
o-Xylene	<0.000500	0.0500	0.0563	113	0.0500	0.0553	111	2	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

Form 3 - MS Recoveries

Project Name: Kimbrough

Work Order #: 618404

Lab Batch #: 3083674

Project ID: 700376.050.11

Date Analyzed: 03.27.2019

Date Prepared: 03.27.2019

Analyst: KRP

QC- Sample ID: 618761-003 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	0.0501	100	66-142	
Toluene	<0.000500	0.0500	0.0559	112	59-139	
Ethylbenzene	<0.000500	0.0500	0.0558	112	75-125	
m,p-Xylenes	<0.00100	0.100	0.111	111	75-125	
o-Xylene	<0.000500	0.0500	0.0559	112	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: 1e19404

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 _____ of _____

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 #
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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
P.O. Number:	SRS# 2000-10757	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4	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	PAH
MW-3	GW	3/20/19		N/A	3	X	

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	Mel Adkins	Jessica Fuentes	3/20/19 4:21	2 Jessica Hunt	Rebecca	3/21/19 11:30
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 124976

Date/Time: 03/21/19 11:58
Lab# From: **Midland**
Lab# To: **Houston**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 774768863036

Please send report to: Wendy Walfoort
Address: 1211 W. Florida Ave
E-Mail: wendy.walfoort@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
618404-001	W	MW-3	03/20/19 00:00	SW8260BTX	BTEX by SW 8260B	03/27/19	04/03/19	WEW	BZ BZME EBZ XYLENES	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 03/21/2019

Received By: Taha Hedib

Date Received: 03/22/2019 09:20

Cooler Temperature: 4.7

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 124976

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

Sent By: Brianna Teel **Date Sent:** 03/21/2019 11:58 AM

Received By: Taha Hedib **Date Received:** 03/22/2019 09:20 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: _____ Date: 03/22/2019

Taha Hedib

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon/LPE Co.

Date/ Time Received: 03/21/2019 11:30:00 AM

Work Order #: 618404

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)?	1.4	
#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: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03/21/2019

Brianna Teel

Checklist reviewed by: Wendy Walfoort Date: 03/24/2019

Wendy Walfoort

Analytical Report 627807

for

Talon/LPE Inc.

Project Manager: David Adkins

Kimbrough

700376.050.11

25-JUN-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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)

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25-JUN-19

Project Manager: **David Adkins**
Talon/LPE Inc.
13111 Lookout Way
San Antonio, TX 78233

Reference: XENCO Report No(s): **627807**
Kimbrough
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) 627807. 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. 627807 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 627807

Talon/LPE Inc., San Antonio, TX

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-19	W	06-11-19 11:55		627807-001
MW-8A	W	06-11-19 12:30		627807-002
MW-7A	W	06-11-19 13:30		627807-003
MW-14	W	06-11-19 14:20		627807-004
MW-17	W	06-11-19 15:00		627807-005
MW-12	W	06-12-19 10:30		627807-006
MW-15	W	06-12-19 11:45		627807-007
MW-18	W	06-12-19 12:30		627807-008
MW-13	W	06-12-19 12:50		627807-009
MW-16	W	06-12-19 13:15		627807-010
MW-2A	W	06-12-19 00:00		627807-011

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

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3093409 BTEX by EPA 8021B
SW8021BM
Batch 3093409,
Benzene, Ethylbenzene, Toluene, m_p-Xylenes , o-Xylene recovered below QC limits in the Blank Spike and Duplicate. Samples in the analytical batch are: 627807-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011.
SW8021BM
Batch 3093409,
Lab Sample ID 627807-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. m_p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 627807-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011.

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627807
Talon/LPE Inc., San Antonio, TX
Kimbrough

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

Lab Sample Id: 627807-001 Date Collected: 06.11.19 11.55 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000690**	0.00200	0.000408	mg/L	06.25.19 07:23	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 07:23	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 07:23	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 07:23	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 07:23	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 07:23	U	
Total BTEX		**0.000690**		0.000367	mg/L	06.25.19 07:23	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	115	70 - 130	%		

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

Lab Sample Id: 627807-002 Date Collected: 06.11.19 12.30 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00108**	0.00200	0.000408	mg/L	06.25.19 07:43	J	1
Toluene	108-88-3	**0.00225**	0.00200	0.000367	mg/L	06.25.19 07:43		1
Ethylbenzene	100-41-4	**0.00232**	0.00200	0.000657	mg/L	06.25.19 07:43		1
m_p-Xylenes	179601-23-1	**0.00497**	0.00400	0.000630	mg/L	06.25.19 07:43		1
o-Xylene	95-47-6	**0.00279**	0.00200	0.000642	mg/L	06.25.19 07:43		1
Xylenes, Total	1330-20-7	**0.00776**		0.000630	mg/L	06.25.19 07:43		
Total BTEX		**0.0134**		0.000367	mg/L	06.25.19 07:43		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	119	70 - 130	%		

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Talon/LPE Inc., San Antonio, TX
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Sample Id: **MW-7A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 627807-003 Date Collected: 06.11.19 13.30 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 04:09	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 04:09	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 04:09	U	1
m_p-Xylenes	179601-23-1	**0.000630**	0.00400	0.000630	mg/L	06.25.19 04:09	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 04:09	U	1
Xylenes, Total	1330-20-7	**0.000630**		0.000630	mg/L	06.25.19 04:09	J	
Total BTEX		**0.000630**		0.000367	mg/L	06.25.19 04:09	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	113	70 - 130	%		

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

Lab Sample Id: 627807-004 Date Collected: 06.11.19 14.20 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 04:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 04:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 04:29	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 04:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 04:29	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 04:29	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 04:29	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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

Lab Sample Id: 627807-005 Date Collected: 06.11.19 15.00 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 08:04	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 08:04	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 08:04	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 08:04	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 08:04	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 08:04	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 08:04	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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

Lab Sample Id: 627807-006 Date Collected: 06.12.19 10.30 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 08:24	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 08:24	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 08:24	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 08:24	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 08:24	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 08:24	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 08:24	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	119	70 - 130	%		

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

Lab Sample Id: 627807-007 Date Collected: 06.12.19 11.45 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 04:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 04:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 04:50	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 04:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 04:50	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 04:50	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 04:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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

Lab Sample Id: 627807-008 Date Collected: 06.12.19 12.30 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 05:10	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 05:10	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 05:10	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 05:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 05:10	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 05:10	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 05:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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

Lab Sample Id: 627807-009 Date Collected: 06.12.19 12.50 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 05:30	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 05:30	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 05:30	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 05:30	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 05:30	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 05:30	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 05:30	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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

Lab Sample Id: 627807-010 Date Collected: 06.12.19 13.15 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 05:51	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 05:51	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 05:51	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 05:51	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 05:51	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 05:51	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 05:51	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	116	70 - 130	%		

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Sample Id: **MW-2A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 627807-011 Date Collected: 06.12.19 00.00 Date Received: 06.14.19 12.15

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**2.23**	0.0200	0.00408	mg/L	06.25.19 10:54		10
Toluene	108-88-3	**0.946**	0.0200	0.00367	mg/L	06.25.19 10:54		10
Ethylbenzene	100-41-4	**0.260**	0.0200	0.00657	mg/L	06.25.19 10:54		10
m_p-Xylenes	179601-23-1	**0.449**	0.0400	0.00630	mg/L	06.25.19 10:54		10
o-Xylene	95-47-6	**0.221**	0.0200	0.00642	mg/L	06.25.19 10:54		10
Xylenes, Total	1330-20-7	**0.670**		0.00630	mg/L	06.25.19 10:54		
Total BTEX		**4.11**		0.00367	mg/L	06.25.19 10:54		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	111	70 - 130	%		

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Talon/LPE Inc., San Antonio, TX
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Sample Id: **7680653-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7680653-1-BLK Date Collected: Date Received:

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

Analyst: ECA % Moist: Tech: DVM

Seq Number: 3093409 Date Prep: 06.24.19 19.00

Prep seq: 7680653

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.25.19 03:49	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.25.19 03:49	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.25.19 03:49	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.25.19 03:49	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.25.19 03:49	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	06.25.19 03:49	U	
Total BTEX		<0.000367		0.000367	mg/L	06.25.19 03:49	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	123	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: Kimbrough

Work Orders : 627807, **Project ID:** 700376.050.11

Lab Batch #: 3093409 **Sample:** 7680653-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/25/19 03:49

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0369	0.0300	123	70-130	

Lab Batch #: 3093409 **Sample:** 7680653-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/25/19 09:30

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3093409 **Sample:** 7680653-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 06/25/19 09:50

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3093409 **Sample:** 627807-002 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/25/19 10:11

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	70-130	

Lab Batch #: 3093409 **Sample:** 627807-002 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 06/25/19 10:31

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0330	0.0300	110	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: Kimbrough

Work Order #: 627807 **Project ID:** 700376.050.11

Analyst: ECA **Date Prepared:** 06/24/2019 **Date Analyzed:** 06/25/2019

Lab Batch ID: 3093409 **Sample:** 7680653-1-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	0.0738	74	0.100	0.0875	88	17	70-130	25	
Toluene	<0.000367	0.100	0.0711	71	0.100	0.0837	84	16	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0715	72	0.100	0.0846	85	17	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.146	73	0.200	0.173	87	17	70-130	25	
o-Xylene	<0.000642	0.100	0.0727	73	0.100	0.0864	86	17	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: Kimbrough

Work Order # : 627807 **Project ID:** 700376.050.11

Lab Batch ID: 3093409 **QC- Sample ID:** 627807-002 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 06/25/2019 **Date Prepared:** 06/24/2019 **Analyst:** ECA

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	0.00108	0.100	0.109	108	0.100	0.109	108	0	70-130	25	
Toluene	0.00225	0.100	0.103	101	0.100	0.103	101	0	70-130	25	
Ethylbenzene	0.00232	0.100	0.104	102	0.100	0.105	103	1	70-130	25	
m_p-Xylenes	0.00497	0.200	0.213	104	0.200	0.215	105	1	70-130	25	
o-Xylene	0.00279	0.100	0.107	104	0.100	0.109	106	2	70-130	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Chain of Custody

Work Order No: 627807

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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
P.O. Number:	SRS # 2000-10757	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.4 | 0.4	Thermometer ID	BE	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX
MW-19	GW	6-11-19	11:55am	N/A	3	X
MW-8A			12:30pm			
MW-7A			1:30pm			
MW-14			2:20pm			
MW-17		6-16-19	3:00pm			
MW-12		6-12-19	10:30am			
MW-15		6-12-19	11:45am			
MW-18			12:20pm			
MW-13			12:50pm			
MW-16	GW	6-12-19	1:15pm	N/A		X

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

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

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

Revised Date 051418 Rev. 2018.1

Final 1.000

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XENCO LABORATORIES

Chain of Custody

Work Order No: 627807

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)

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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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
P.O. Number:	SBS # 2000-10757	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

ANALYSIS REQUEST

Work Order Notes

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

SAMPLE RECEIPT	Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.6/0.4		Thermometer ID:	RC
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A		Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A		Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	Sample Comments
MW-2A	GW	6-12-19		N/A	3	X	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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	6/12/19 16:45	2	[signature]	6/14/19 1715
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon/LPE Inc.

Date/ Time Received: 06/14/2019 12:15:00 PM

Work Order #: 627807

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)?	.4
#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)?	**N/A**
#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: Brianna Teel Date: 06/14/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/14/2019

Jessica Kramer

Analytical Report 638017

for

Talon LPE-Artesia

Project Manager: David Adkins

Kimbrough

700376.050.11

04-OCT-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 (TX104704295-19-22), 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-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)

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04-OCT-19

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

Reference: XENCO Report No(s): **638017**
Kimbrough
Project Address: Lea County

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 638017. 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. 638017 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 638017

Talon LPE-Artesia, Artesia, NM

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW -7A	W	09-24-19 11:40		638017-001
MW -8A	W	09-24-19 12:30		638017-002
MW -19	W	09-24-19 12:55		638017-003
MW -1A	W	09-24-19 13:20		638017-004
MW -14	W	09-24-19 14:20		638017-005
MW -16	W	09-24-19 14:45		638017-006
MW -13	W	09-25-19 09:40		638017-007
MW -15	W	09-25-19 10:15		638017-008
MW -18	W	09-25-19 10:50		638017-009
MW-17	W	09-25-19 11:10		638017-010
MW -12	W	09-25-19 11:40		638017-011

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Kimbrough

Project ID:	*700376.050.11*	Report Date:	*04-OCT-19*
Work Order Number(s):	*638017*	Date Received:	*09/25/2019*

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

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103168 BTEX by EPA 8021

Lab Sample ID 638017-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m_p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 638017-001, -003, -004, -005, -006, -007, -008, -009, -010, -011.

The Laboratory Control Sample for Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Ethylbenzene, m_p-Xylenes , o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 638017-001, -003, -004, -005, -006, -007, -008, -009, -010, -011

Batch: LBA-3103309 BTEX by EPA 8021

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 638221-001 SD.

Certificate of Analytical Results
638017
Talon LPE-Artesia, Artesia, NM
Kimbrough

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

Lab Sample Id: 638017-001 Date Collected: 09.24.19 11.40 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 08:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 08:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 08:50	UXF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 08:50	UFX	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 08:50	UXF	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 08:50	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 08:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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

Lab Sample Id: 638017-002 Date Collected: 09.24.19 12.30 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103309 Date Prep: 10.03.19 10.30

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687330

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 05:47	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 05:47	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 05:47	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 05:47	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 05:47	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 05:47	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 05:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	128	70 - 130	%		

Certificate of Analytical Results
638017
Talon LPE-Artesia, Artesia, NM
Kimbrough

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

Lab Sample Id: 638017-003 Date Collected: 09.24.19 12.55 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 09:30	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 09:30	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 09:30	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 09:30	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 09:30	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 09:30	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 09:30	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

Sample Id: **MW -1A** Matrix: Ground Water Sample Depth:

Lab Sample Id: 638017-004 Date Collected: 09.24.19 13.20 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 09:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 09:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 09:50	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 09:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 09:50	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 09:50	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 09:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	110	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
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Sample Id: **MW -14** Matrix: Ground Water Sample Depth:

Lab Sample Id: 638017-005 Date Collected: 09.24.19 14.20 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 10:10	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 10:10	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 10:10	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 10:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 10:10	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 10:10	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 10:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	111	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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

Lab Sample Id: 638017-006 Date Collected: 09.24.19 14.45 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 10:30	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 10:30	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 10:30	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 10:30	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 10:30	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 10:30	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 10:30	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	92	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
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Sample Id: **MW -13** Matrix: Ground Water Sample Depth:

Lab Sample Id: 638017-007 Date Collected: 09.25.19 09.40 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 10:50	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 10:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 10:50	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 10:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 10:50	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 10:50	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 10:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	112	70 - 130	%		
4-Bromofluorobenzene	98	70 - 130	%		

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

Lab Sample Id: 638017-008 Date Collected: 09.25.19 10.15 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 12:09	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 12:09	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 12:09	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 12:09	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 12:09	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 12:09	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 12:09	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	82	70 - 130	%		

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

Lab Sample Id: 638017-009 Date Collected: 09.25.19 10.50 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 12:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 12:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 12:29	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 12:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 12:29	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 12:29	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 12:29	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	92	70 - 130	%		

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

Lab Sample Id: 638017-010 Date Collected: 09.25.19 11.10 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 12:49	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 12:49	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 12:49	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 12:49	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 12:49	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 12:49	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 12:49	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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

Lab Sample Id: 638017-011 Date Collected: 09.25.19 11.40 Date Received: 09.25.19 14.21

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 01:10	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 01:10	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 01:10	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 01:10	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 01:10	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 01:10	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 01:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	94	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
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Sample Id: **7687038-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7687038-1-BLK Date Collected: Date Received:

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103168 Date Prep: 10.01.19 14.00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687038

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.02.19 07:29	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.02.19 07:29	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.02.19 07:29	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.02.19 07:29	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.02.19 07:29	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.02.19 07:29	U	
Total BTEX		<0.000367		0.000367	mg/L	10.02.19 07:29	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	91	70 - 130	%		

Sample Id: **7687330-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7687330-1-BLK Date Collected: Date Received:

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3103309 Date Prep: 10.02.19 13.30

Subcontractor: SUB: T104704400-19-19 Prep seq: 7687330

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	10.03.19 05:27	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	10.03.19 05:27	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	10.03.19 05:27	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	10.03.19 05:27	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	10.03.19 05:27	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	10.03.19 05:27	U	
Total BTEX		<0.000367		0.000367	mg/L	10.03.19 05:27	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	117	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: Kimbrough

Work Orders : 638017, **Project ID:** 700376.050.11

Lab Batch #: 3103168 **Sample:** 7687038-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/02/19 05:49

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3103168 **Sample:** 7687038-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/02/19 06:09

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0307	0.0300	102	70-130	

Lab Batch #: 3103168 **Sample:** 638017-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 10/02/19 06:29

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	70-130	
4-Bromofluorobenzene	0.0325	0.0300	108	70-130	

Lab Batch #: 3103168 **Sample:** 638017-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 10/02/19 06:50

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0328	0.0300	109	70-130	

Lab Batch #: 3103168 **Sample:** 7687038-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/02/19 07:29

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0274	0.0300	91	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.

Form 2 - Surrogate Recoveries

Project Name: Kimbrough

Work Orders : 638017, **Project ID:** 700376.050.11

Lab Batch #: 3103309 **Sample:** 7687330-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/03/19 03:45

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0379	0.0300	126	70-130	

Lab Batch #: 3103309 **Sample:** 7687330-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/03/19 04:05

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	70-130	
4-Bromofluorobenzene	0.0386	0.0300	129	70-130	

Lab Batch #: 3103309 **Sample:** 638221-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 10/03/19 04:25

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0385	0.0300	128	70-130	

Lab Batch #: 3103309 **Sample:** 638221-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 10/03/19 04:45

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0403	0.0300	134	70-130	**

Lab Batch #: 3103309 **Sample:** 7687330-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/03/19 05:27

BTEX by EPA 8021 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	70-130	
4-Bromofluorobenzene	0.0351	0.0300	117	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: Kimbrough

Work Order #: 638017 **Project ID:** 700376.050.11

Analyst: KTL **Date Prepared:** 10/01/2019 **Date Analyzed:** 10/02/2019

Lab Batch ID: 3103168 **Sample:** 7687038-1-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	0.100	100	0.100	0.101	101	1	70-130	25	
Toluene	<0.000367	0.100	0.103	103	0.100	0.104	104	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0939	94	0.100	0.0963	96	3	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.185	93	0.200	0.190	95	3	70-130	25	
o-Xylene	<0.000642	0.100	0.0905	91	0.100	0.0949	95	5	70-130	25	

Analyst: KTL **Date Prepared:** 10/02/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103309 **Sample:** 7687330-1-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	0.107	107	0.100	0.111	111	4	70-130	25	
Toluene	<0.000367	0.100	0.108	108	0.100	0.113	113	5	70-130	25	
Ethylbenzene	<0.000657	0.100	0.114	114	0.100	0.119	119	4	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.243	122	0.200	0.256	128	5	70-130	25	
o-Xylene	<0.000642	0.100	0.122	122	0.100	0.130	130	6	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: Kimbrough

Work Order # : 638017 **Project ID:** 700376.050.11

Lab Batch ID: 3103168 **QC- Sample ID:** 638017-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 10/02/2019 **Date Prepared:** 10/01/2019 **Analyst:** KTL

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.0895	90	0.100	0.0984	98	9	70-130	25	
Toluene	<0.000367	0.100	0.0835	84	0.100	0.101	101	19	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0642	64	0.100	0.0924	92	36	70-130	25	XF
m_p-Xylenes	<0.000630	0.200	0.120	60	0.200	0.181	91	41	70-130	25	XF
o-Xylene	<0.000642	0.100	0.0654	65	0.100	0.0895	90	31	70-130	25	XF

Lab Batch ID: 3103309 **QC- Sample ID:** 638221-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 10/03/2019 **Date Prepared:** 10/02/2019 **Analyst:** KTL

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000408	0.100	0.106	106	0.100	0.109	109	3	70-130	25	
Toluene	<0.000367	0.100	0.107	107	0.100	0.112	112	5	70-130	25	
Ethylbenzene	<0.000657	0.100	0.115	115	0.100	0.120	120	4	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.240	120	0.200	0.252	126	5	70-130	25	
o-Xylene	<0.000642	0.100	0.120	120	0.100	0.139	139	15	70-130	25	X

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

Work Order No: 638017

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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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON	Company Name:	PIPELINE
Address:	408 W. TEXAS AVE	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	1st 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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2000-10757	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:	33

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	Sample Comments
	MW-7A	GW	9/24/19	11:40 am	N/A	3	✓	EMAIL ANALYTICALS
	MW-8A			12:30pm				TO
	MW-19			12:55pm				CAMILLE BRYANT
	MW-1A			1:20pm				
	MW-14			2:20pm				
	MW-16		9/24/19	2:45pm				
	MW-13		9/25/19	9:40am				
	MW-15			10:15am				
	MW-18			10:50am				
	MW-17			11:10 am	N/A	3	✓	

ANALYSIS REQUEST

Pres. Code

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Mike Coll.		9/25/19 14:21	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Final 1.000

Page 18 of 22

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 638017

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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON	Company Name:	PIPELINE
Address:	408 W. TEXAS AVE	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	

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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2000-10757	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:	33

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX
	MW-12	GW	9/25/19	11:40am	N/A	3		✓

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

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

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		9/25/19		2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number **48768**

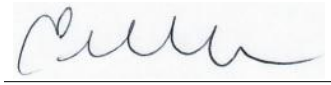
Date/Time: 09/25/19 15:37
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776338832183

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
638017-001	W	MW -7A	09/24/19 11:40	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-002	W	MW -8A	09/24/19 12:30	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-003	W	MW -19	09/24/19 12:55	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-004	W	MW -1A	09/24/19 13:20	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-005	W	MW -14	09/24/19 14:20	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-006	W	MW -16	09/24/19 14:45	SW8021B	BTEX by EPA 8021	10/01/19	10/08/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-007	W	MW -13	09/25/19 09:40	SW8021B	BTEX by EPA 8021	10/01/19	10/09/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-008	W	MW -15	09/25/19 10:15	SW8021B	BTEX by EPA 8021	10/01/19	10/09/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-009	W	MW -18	09/25/19 10:50	SW8021B	BTEX by EPA 8021	10/01/19	10/09/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-010	W	MW-17	09/25/19 11:10	SW8021B	BTEX by EPA 8021	10/01/19	10/09/19	JKR	BR4FBZ BZ BZME EBZ T	
638017-011	W	MW -12	09/25/19 11:40	SW8021B	BTEX by EPA 8021	10/01/19	10/09/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 09/25/2019

Received By: 
Brianna Teel

Date Received: 09/26/2019 11:25

Cooler Temperature: 0.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48768

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

Sent By: Elizabeth McClellan **Date Sent:** 09/25/2019 03:37 PM

Received By: Brianna Teel **Date Received:** 09/26/2019 11:25 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 09/26/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09/25/2019 02:21:00 PM

Work Order #: 638017

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: 09/25/2019

Checklist reviewed by: Jessica Kramer Date: 09/27/2019

Analytical Report 645816

for

Talon LPE-Artesia

Project Manager: David Adkins

Kimbrough

700 376.050.11

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): **645816**
Kimbrough
Project Address: Lea County

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645816. 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. 645816 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 645816

Talon LPE-Artesia, Artesia, NM

Kimbrough

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW- 8A	W	12.09.2019 11:45		645816-001
MW- 7A	W	12.09.2019 12:50		645816-002
MW- 19	W	12.09.2019 13:50		645816-003
MW- 16	W	12.09.2019 14:15		645816-004
MW- 14	W	12.10.2019 09:25		645816-005
MW- 15	W	12.10.2019 10:10		645816-006
MW- 18	W	12.10.2019 10:35		645816-007
MW- 13	W	12.10.2019 10:50		645816-008
MW- 12	W	12.10.2019 11:20		645816-009
MW- 17	W	12.10.2019 11:45		645816-010
MW- 1A	W	12.10.2019 12:15		645816-011

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Kimbrough

Project ID:	*700 376.050.11*	Report Date:	*12.16.2019*
Work Order Number(s):	*645816*	Date Received:	*12.10.2019*

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
645816
Talon LPE-Artesia, Artesia, NM
Kimbrough

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

Lab Sample Id: 645816-001 Date Collected: 12.09.2019 11:45 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000470**	0.00200	0.000408	mg/L	12.13.2019 17:25	J	1
Toluene	108-88-3	**0.00159**	0.00200	0.000367	mg/L	12.13.2019 17:25	J	1
Ethylbenzene	100-41-4	**0.00360**	0.00200	0.000657	mg/L	12.13.2019 17:25		1
m_p-Xylenes	179601-23-1	**0.00223**	0.00400	0.000630	mg/L	12.13.2019 17:25	J	1
o-Xylene	95-47-6	**0.00255**	0.00200	0.000642	mg/L	12.13.2019 17:25		1
Xylenes, Total	1330-20-7	**0.00478**		0.000630	mg/L	12.13.2019 17:25		
Total BTEX		**0.0104**		0.000367	mg/L	12.13.2019 17:25		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	110	70 - 130	%		

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

Lab Sample Id: 645816-002 Date Collected: 12.09.2019 12:50 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 17:45	U	1
Toluene	108-88-3	**0.000880**	0.00200	0.000367	mg/L	12.13.2019 17:45	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 17:45	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 17:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 17:45	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 17:45	U	
Total BTEX		**0.000880**		0.000367	mg/L	12.13.2019 17:45	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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

Lab Sample Id: 645816-003 Date Collected: 12.09.2019 13:50 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 18:05	U	1
Toluene	108-88-3	**0.000610**	0.00200	0.000367	mg/L	12.13.2019 18:05	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 18:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 18:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 18:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 18:05	U	
Total BTEX		**0.000610**		0.000367	mg/L	12.13.2019 18:05	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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

Lab Sample Id: 645816-004 Date Collected: 12.09.2019 14:15 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 18:26	U	1
Toluene	108-88-3	**0.000490**	0.00200	0.000367	mg/L	12.13.2019 18:26	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 18:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 18:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 18:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 18:26	U	
Total BTEX		**0.000490**		0.000367	mg/L	12.13.2019 18:26	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		

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

Lab Sample Id: 645816-005 Date Collected: 12.10.2019 09:25 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 18:46	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.13.2019 18:46	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 18:46	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 18:46	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 18:46	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 18:46	U	
Total BTEX		<0.000367		0.000367	mg/L	12.13.2019 18:46	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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

Lab Sample Id: 645816-006 Date Collected: 12.10.2019 10:10 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 19:06	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.13.2019 19:06	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 19:06	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 19:06	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 19:06	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 19:06	U	
Total BTEX		<0.000367		0.000367	mg/L	12.13.2019 19:06	U	

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

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

Lab Sample Id: 645816-007 Date Collected: 12.10.2019 10:35 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 19:26	U	1
Toluene	108-88-3	**0.000380**	0.00200	0.000367	mg/L	12.13.2019 19:26	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 19:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 19:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 19:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 19:26	U	
Total BTEX		**0.000380**		0.000367	mg/L	12.13.2019 19:26	J	

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

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

Lab Sample Id: 645816-008 Date Collected: 12.10.2019 10:50 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 19:46	U	1
Toluene	108-88-3	**0.000450**	0.00200	0.000367	mg/L	12.13.2019 19:46	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 19:46	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 19:46	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 19:46	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 19:46	U	
Total BTEX		**0.000450**		0.000367	mg/L	12.13.2019 19:46	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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

Lab Sample Id: 645816-009 Date Collected: 12.10.2019 11:20 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 21:05	U	1
Toluene	108-88-3	**0.000510**	0.00200	0.000367	mg/L	12.13.2019 21:05	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 21:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 21:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 21:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 21:05	U	
Total BTEX		**0.000510**		0.000367	mg/L	12.13.2019 21:05	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	90	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

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

Lab Sample Id: 645816-010 Date Collected: 12.10.2019 11:45 Date Received: 12.10.2019 15:55

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3110536 Date Prep: 12.12.2019 11:00

Subcontractor: SUB: T104704400-19-19 Prep seq: 7692264

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 21:25	U	1
Toluene	108-88-3	**0.000470**	0.00200	0.000367	mg/L	12.13.2019 21:25	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 21:25	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 21:25	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 21:25	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 21:25	U	
Total BTEX		**0.000470**		0.000367	mg/L	12.13.2019 21:25	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	92	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Sample Id:	**MW- 1A**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	645816-011	Date Collected:	12.10.2019 12:15	Date Received:	12.10.2019 15:55
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3110536	Date Prep:	12.12.2019 11:00		
Subcontractor:	SUB: T104704400-19-19	Prep seq:	7692264		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 21:45	U	1
Toluene	108-88-3	**0.000650**	0.00200	0.000367	mg/L	12.13.2019 21:45	J	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 21:45	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 21:45	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 21:45	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.13.2019 21:45	U	
Total BTEX		**0.000650**		0.000367	mg/L	12.13.2019 21:45	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Kimbrough

Sample Id:	**7692264-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7692264-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3110536	Date Prep:	12.12.2019 11:00		
Subcontractor:	SUB: T104704400-19-19	Prep seq:	7692264		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.13.2019 16:25	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.13.2019 16:25	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.13.2019 16:25	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.13.2019 16:25	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.13.2019 16:25	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	81	70 - 130	%		
4-Bromofluorobenzene	102	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: Kimbrough

Work Orders : 645816 **Project ID:** 700 376.050.11

Lab Batch #: 3110536 **Sample:** 7692264-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.13.2019 12:05 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0319	0.0300	106	70-130	

Lab Batch #: 3110536 **Sample:** 7692264-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.13.2019 12:25 **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	0.0334	0.0300	111	70-130	

Lab Batch #: 3110536 **Sample:** 645725-001 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.13.2019 12:45 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3110536 **Sample:** 645725-001 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 12.13.2019 13:05 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	70-130	
4-Bromofluorobenzene	0.0360	0.0300	120	70-130	

Lab Batch #: 3110536 **Sample:** 7692264-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.13.2019 16:25 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	70-130	
4-Bromofluorobenzene	0.0307	0.0300	102	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: Kimbrough

Work Order #: 645816 **Project ID:** 700 376.050.11

Analyst: KTL **Date Prepared:** 12.12.2019 **Date Analyzed:** 12.13.2019

Lab Batch ID: 3110536 **Sample:** 7692264-1-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	0.109	109	0.100	0.107	107	2	70-130	25	
Toluene	<0.000367	0.100	0.105	105	0.100	0.104	104	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0999	100	0.100	0.101	101	1	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.201	101	0.200	0.205	103	2	70-130	25	
o-Xylene	<0.000642	0.100	0.0980	98	0.100	0.101	101	3	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: Kimbrough

Work Order # : 645816 **Project ID:** 700 376.050.11

Lab Batch ID: 3110536 **QC- Sample ID:** 645725-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 12.13.2019 **Date Prepared:** 12.12.2019 **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	0.0700	0.100	0.216	146	0.100	0.206	136	5	70-130	25	X
Toluene	0.0324	0.100	0.153	121	0.100	0.145	113	5	70-130	25	
Ethylbenzene	0.00330	0.100	0.110	107	0.100	0.103	100	7	70-130	25	
m_p-Xylenes	0.0732	0.200	0.308	117	0.200	0.293	110	5	70-130	25	
o-Xylene	0.0775	0.100	0.203	126	0.100	0.199	122	2	70-130	25	

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

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

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

Chain of Custody

Work Order No: 645814

XENCO LABORATORIES
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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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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
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Address:	408 W. TEXAS AVE	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	dakins@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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2000-10757	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.0	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	(Yes) No N/A	Total Containers:	33

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX
	MW-8A	GW	12-9-19	11:45am	N/A	3	✓
	MW-7A			12:50pm			
	MW-19			1:30pm			
	MW-16		12-9-19	2:15pm			
	MW-14		12-10-19	9:25am			
	MW-15			10:10am			
	MW-18			10:35am			
	MW-13			10:50am			
	MW-12			11:20am			
	MW-17		12-10-19	11:45am	N/A	✓	✓

Pres. Code

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

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

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

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Michael Collier		12/10/19 15:55	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Final 1.000

Chain of Custody

Work Order No: 458116

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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Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 W. TEXAS AVE	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	cadkins@taloncpe.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:	KIMBROUGH	Turn Around	
Project Number:	700376.050.11	Routine	☒
Project Location	LEA COUNTY	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	
PO #:	2000-10757	Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX
	MW-1A	GW	12-10-19	12:15 pm	N/A	3		✓

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

EMAIL ANALYTICALS TO CAMILLE BRYANT

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		12/10/19 15:55	2		
3			4		
5			6		

Inter-Office Shipment

IOS Number **54002**

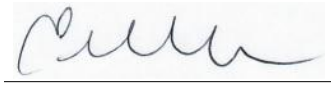
Date/Time: 12/11/19 10:35
Lab# From: **Carlsbad**
Lab# To: **Midland**

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
645816-001	W	MW- 8A	12/09/19 11:45	SW8021B	BTEX by EPA 8021	12/16/19	12/23/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-002	W	MW- 7A	12/09/19 12:50	SW8021B	BTEX by EPA 8021	12/16/19	12/23/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-003	W	MW- 19	12/09/19 13:50	SW8021B	BTEX by EPA 8021	12/16/19	12/23/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-004	W	MW- 16	12/09/19 14:15	SW8021B	BTEX by EPA 8021	12/16/19	12/23/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-005	W	MW- 14	12/10/19 09:25	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-006	W	MW- 15	12/10/19 10:10	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-007	W	MW- 18	12/10/19 10:35	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-008	W	MW- 13	12/10/19 10:50	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-009	W	MW- 12	12/10/19 11:20	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-010	W	MW- 17	12/10/19 11:45	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	
645816-011	W	MW- 1A	12/10/19 12:15	SW8021B	BTEX by EPA 8021	12/16/19	12/24/19	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 12/11/2019

Received By: 
Brianna Teel

Date Received: 12/11/2019 16:06

Cooler Temperature: 2.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 54002

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

Sent By: Elizabeth McClellan **Date Sent:** 12/11/2019 10:35 AM

Received By: Brianna Teel **Date Received:** 12/11/2019 04:06 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 12/11/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 12/10/2019 03:55:00 PM

Work Order #: 645816

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**	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