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TALON LPE

2020 ANNUAL GROUNDWATER MONITORING REPORT

LOVINGTON DEEP 6”
LEA COUNTY, NEW MEXICO
SRS #2002—10312
NMOCD REF. # AP-037, nAPP2109530339

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

Prepared By:
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408 Texas Avenue
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January 14, 2021

APPROVED
By Nelson Velez at 11:08 am, Jan 11, 2022

Review of 2020 ANNUAL GROUNDWATER MONITORING REPORT:
Content satisfactory
Contractor recommendations approved by OCD and are as follows;
1. Continue monthly MDPE events
2. Perform quarterly groundwater monitoring events in accordance with NMOCD directives
3. OCD approves discontinuing PAH analysis from MW-4, MW-10, MW-12, MW-18, MW-19, and MW-20
4. Submit annual report to OCD no later than March 31,2022.

2020 ANNUAL GROUNDWATER MONITORING REPORT

LOVINGTON DEEP 6"
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SRS #2002 - 10312
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TALON/LPE PROJECT NO. 700376.051.54

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NMOCD - New Mexico Oil Conservation Division

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Site Background

The Lovington Deep 6" site is located approximately 5.8 miles southwest of Lovington, New Mexico in Unit H, Section 6, Township 16 South, and Range 36 East. A release of crude oil from the Deep 6" pipeline occurred on property which is primarily utilized as pasture/range with intermittent oil production facilities and is owned by Chevron. The site is located within the West Lovington oil field and has no residence or surface water located within a 1,000-foot radius of the release point. The remediation area is surrounded by a barbed wire fence and is gated.

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 playa lakes 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 3,915 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.

In December 2002, a reported release of approximately 25 barrels (bbls) of crude oil occurred at the site due to corrosion of the Deep 6" pipeline. Ten (10) bbls of oil were recovered during initial response activities. Approximately 6,000 square feet of surface area was impacted by the release. During the initial remediation phase, soil that was impacted by the release was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm for treatment. Soil remediation activities were initiated by EPI in 2003 and the soil phase of site remediation was closed in October 2005.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains Marketing, L.P. (Plains) to assume groundwater remediation activities at the Lovington Deep 6" release site. Groundwater remediation activities at the site were previously conducted by Environmental Plus, Inc. (EPI).

1.2 Site Geology

The surficial 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, Ogallala sediments were deposited by fluvial mechanism as paleovalley fill, which is composed of gravelly to sandy braided stream deposits that trend 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

During initial assessment activities to delineate the extent of impacted soil at the site, six soil borings were advanced from December 27, 2002, through January 2, 2004. During the assessment, soil boring BH-1 encountered groundwater that was impacted by phase separated hydrocarbons (PSH). Subsequently, soil boring BH-1 was completed as groundwater monitor well, MW-2. Soil borings BH-2, BH-4, BH-5, and BH-6 were advanced in order to delineate the extent of impacted groundwater and those soil borings were completed as groundwater monitor wells MW-1, MW-3, MW-4, and MW-5 respectively.

During November and December of 2004, six (6) additional groundwater monitor wells (MW-6 through MW-11) were installed to further delineate the lateral extent of groundwater impacts at the site. In July 2006, six (6) additional groundwater monitor wells (MW-12 through MW-17) were installed to complete assessment of the areal extent of impacted groundwater.

Subsequent groundwater monitoring events indicated that benzene concentrations in the down-gradient sentinel monitor wells, MW-12 and MW-18, consistently exceeded the NMWQCC standard. Therefore, two additional monitor wells MW-19 and MW-20 were installed further down-gradient on August 27, 2018.

PSH recovery operations have been performed at the site since March 2003, initially from hand bailing followed by a recovery system that utilized skimmers with bladder pumps for PSH recovery. In April of 2010, a pneumatic total fluid pump was installed in monitor well MW-2. Because the total fluid pump increased groundwater production combined with an insignificant increase in PSH production, the total fluids pump was removed from MW-2 in September of 2010 and replaced with a skimmer and bladder pump. In order to help reduce down-gradient dissolved-phase concentrations, bubblers were installed in monitor wells MW-10 and MW-12 in January of 2011. In February 20, 2016 a new compressor was installed.

At the end of 2012, there were six (6) skimmers with bladder pumps operating in monitor wells MW-2, MW-13, MW-14, MW-15, MW-16, and MW-17. During 2012, three Mobile Dual Phase Extraction (MDPE) events were conducted on site. A total of approximately 27 bbls of liquid and vapor PSH were recovered during these events, and five (5) bbls of crude oil was recovered during 2012 by the skimmer pump system.

Because the MDPE events have proven to be far more efficient at PSH recovery, the on-site

recovery system was removed completely in January of 2013. MDPE events are now conducted on a monthly basis.

Currently there are three (3) air sparge bubblers operating in monitoring wells MW-10, MW-12, and MW-18. In, 2020, MDPE events recovered an estimated total of 56.02 bbls of PSH consisting of 19.04 bbls of liquid and 36.98 bbls of vapor phase PSH. To date approximately 409.95 bbls of PSH have been recovered during the described remediation efforts.

1.4 Regulatory Framework

Groundwater analytical data collected from the Deep 6" site is evaluated to the NMWQCC groundwater standards outlined below.

New Mexico Water Quality Control Commission (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)	0.0007

The subsequent sections of this report provide summaries of the groundwater monitoring activities that were conducted at the subject site during the year 2020 as well as analytical results from each groundwater sampling event. Cumulative analytical results for the four (4) 2020 sampling events are summarized in Table 2, in Appendix B, and Figures 1, 2a through 2d, and 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C.

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during 2020. 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 groundwater 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 Gauging, Purging, and Sample Collection Procedures

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2020 on March 11, June 09, September 04, and December 11.

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 these measurements was used to construct groundwater gradient maps and PSH thickness isopleth 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 were purged using a down-hole pump equipped with vinyl tubing. The pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was contained in 55-gallon drums. After the groundwater monitoring event, all retained water was placed into the on-site storage tank and removed with a vacuum truck for disposal at Gandy Marley, a NMOCD approved facility.

Groundwater samples were collected from all monitor wells using dedicated 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 analysis.

The groundwater samples collected during all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. Groundwater samples collected from six (6) groundwater monitoring wells: MW-4, MW-10, MW-12, MW-18, MW-19, and MW-20 during the first quarterly sampling event were analyzed for polycyclic aromatic hydrocarbons (PAH) by EPA 8270C.

2.2 Phase Separated Hydrocarbon Recovery

PSH recovery has been conducted at the site since 2003, initially by hand bailing. In 2007, an automated skimmer/bladder pump recovery system was installed at the site. The system utilized six (6) skimmers with bladder pumps in monitor wells MW-2, and MW-13 through MW-17 for recovery of PSH and to inhibit migration of the PSH plume. The skimmer assembly consisted of bladder pumps combined with 24-inch traveling float specific gravity skimmers

attachments. The skimmer system was powered by a single-phase, 230-volt, 7.5 HP, two-stage reciprocating air compressor.

Currently, MDPE events are conducted monthly. This system utilizes vapor pulled by vacuum combined with propane to power an internal combustion engine. In addition, it also powers a compressor and the blower used to create a 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 an on-site 1,500-gallon poly tank. The poly tank is equipped with a high level shut off switch to prevent overflow and it is located within a secondary containment compound that is outfitted with a poly-liner. Recovered groundwater and PSH is removed from the poly tank and transported to an NMOCD approved disposal facility, Gandy Marley, via vacuum truck at the end of the MDPE events.

During 2020, the quarterly MDPE, PSH and groundwater recovery totals are as follows:

- 1st Quarter – 14.08 bbls PSH and 111.05 bbls of groundwater
- 2nd Quarter – 12.64 bbls PSH and 54.86 bbls of groundwater
- 3rd Quarter – 16.24 bbls PSH and 87.27 bbls of groundwater
- 4th Quarter – 13.06 bbls PSH and 70.75 bbls groundwater

The MDPE individual event recovery totals are as follows:

- January 9, 2020 – 2.0 bbls vapor PSH, 1.60 bbls liquid PSH
- February 6, 2020– 2.24 bbls vapor PSH, 1.55 bbls liquid PSH
- March 9, 2020 – 4.24 bbls vapor PSH, 2.45 bbls liquid PSH
- April 30, 2020– 1.66 bbls vapor PSH, 2.29 bbls liquid PSH
- May 20, 2020– 3.86 bbls vapor PSH, 4.83 bbls liquid PSH
- June 16, 2020– 1.17 bbls vapor PSH, 1.83 bbls liquid PSH
- July 21, 2020 – 5.89 bbls vapor PSH, 1.45 bbls liquid PSH
- August 18, 2020 – 2.59 bbls vapor PSH, 0.93 bbls liquid PSH
- September 24, 2020 – 3.97 bbls vapor PSH, 1.07 bbls liquid PSH
- October 14, 2020 – 4.02 bbls vapor PSH, 0.83 bbls liquid PSH
- November 22, 2020 – 3.71 bbls vapor PSH, 0.83 bbls liquid PSH
- December 8, 2020 – 2.46 bbls vapor PSH, 1.21 bbls liquid PSH

In 2020 an estimated total of 56.02 bbls of PSH were recovered during the MDPE events. Approximately 409.95 bbls of PSH consisting of 169.83 bbls of vapor phase and 240.12 bbls of liquid phase PSH have been recovered from the site to date.

3.0 GROUNDWATER MONITORING RESULTS

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

3.1 Groundwater Monitoring Results

The following sections present the results from the monitoring of the first water-bearing zone underlying the site.

3.1.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala Aquifer underlies an area of about 29,000 square miles in western Texas and eastern New Mexico, 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 0 to 1.6 inches per year.

The Ogallala Aquifer is generally unconfined and the poteniometric surface mimics the topography with the regional flow direction from the northwest to the southeast. The mean regional gradient is 15 feet per mile and the typical groundwater velocity averages seven (7) inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically ranged from 60 to 65 feet below ground surface (bgs) and the groundwater flow direction is to the east southeast at an average of 0.0038 foot per foot or 17 feet per mile. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet. The variable thickness is due to the irregularly eroded Triassic surface that underlies it.

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

3.1.2 Groundwater Gradient and Flow Direction

The depth to fluid measurements were collected during each of the four (4) groundwater monitoring events during the year 2020. 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 indicates that the groundwater flow direction is to the east at an approximate gradient of average 0.0037 feet/foot or approximately 19.53 feet/mile. Groundwater levels at the subject site have decreased slightly during all four of the groundwater monitoring events for the year 2020.

3.1.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thicknesses of PSH during the four (4) groundwater monitoring events. Generally, PSH thicknesses have fluctuated slightly from quarter to quarter during the year 2020.

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

- In March 2020, PSH was observed in four (4) monitor wells, MW-2, MW-13, MW-14, and MW-17. PSH thickness ranged from 0.05 feet to 0.39 feet.
- In June 2020, PSH was observed in three (3) monitor wells MW-13, MW-14, and MW-17. PSH thickness ranged from 0.05 feet to 2.01 feet.
- In September 2020, PSH was observed in three (3) monitor wells MW-2, MW-14, and MW-17. PSH thickness ranged from 0.01 feet to 2.65 feet.
- In December 2020, PSH was observed in four (4) monitor wells MW-2, MW-13, MW-14, and MW-17. PSH thickness ranged from 0.01 feet to 0.08 feet.

3.1.4 Groundwater Sampling Results

During the March 2020 sampling event, groundwater samples were collected from fourteen (14) monitor wells MW-1, MW-3 through MW-5, MW-8 through MW-12, MW-15, MW-16, MW-18, MW-19 and MW-20. Groundwater samples were not collected from four (4) monitor wells due to PSH (MW-2, MW-13, MW-14, and MW-17); one (1) well was gauged dry (MW-6); and one (1) well (MW-7) was obstructed. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory method detection limit (MDL) in wells MW-1, MW-3, MW-11, MW-15, and MW-16 to 3.96 mg/L in MW-19. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-4, MW-10, MW-18, MW-19, and MW-20.
- Toluene concentrations were less than the laboratory MDL in all wells except, MW-12, MW-18, and MW-19 with concentrations of 0.000750 mg/L, 0.0239 mg/L, and 0.00557 mg/L respectively. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells MW-1, MW-4, MW-5, MW-8, MW-9, MW-11, MW-16, and MW-20 to 0.161 mg/L in MW-

10. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.

- Xylene concentrations were less than the laboratory MDL in all wells except, MW-3, MW-18, and MW-19 with concentrations of 0.0454 mg/L, 0.00489 mg/L, and 0.00131 mg/L respectively. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.
- Naphthalene concentrations ranged from less than the laboratory MDL in wells MW-4, MW-12, MW-18, and MW-20 to 0.000301 mg/L in MW-10. Naphthalene was detected in two (2) of the six (6) wells sampled for PAH (Polycyclic Aromatic Hydrocarbons), none of which exceeded the NMWQCC standard of 0.03 mg/L. Benzo(a)pyrene concentrations were less than the laboratory method detection limits (MDLs) in all six (6) wells samples for PAH, none exceeding the NMWQCC standard of 0.007 mg/L.

During the June 2020 sampling event, groundwater samples were collected from thirteen (13) monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-10, MW-11, MW-12, MW-15, MW-16, MW-18, MW-19, and MW-20. Groundwater samples were not collected from three (3) monitor wells due to PSH (MW-13, MW-14, and MW-17); two (2) wells were gauged dry (MW-2 and MW-6); and one (1) well (MW-7) was obstructed. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in wells MW-1, MW-4, MW-11, MW-16, MW-19, and MW-20 to 2.33 mg/L in MW-10. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-10 and MW-18.
- Toluene concentrations were less than the laboratory MDL in all wells sampled except for MW-10 which had a concentration of 0.00104 mg/L, and MW-18 with a concentration of 0.0138 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in wells MW-1, MW-4, MW-5, MW-8, MW-11, MW-12, MW-16, MW-19, and MW-20 to 0.0774 mg/L in MW-3. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations ranged from less than the MDL in wells MW-1, MW-4, MW-5, MW-8, MW-11, MW-12, MW-16, MW-19, and MW-20 to 0.110 mg/L in MW-3. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.

During the September 2020 sampling event, groundwater samples were collected from thirteen (13) monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-11, MW-12, MW-15, MW-16, MW-18, MW-19, and MW-20. Groundwater samples were not collected from three (3) monitor wells due to PSH (MW-2, MW-14, and MW-17); two (2) wells were gauged dry (MW-6 and MW-13); and two (2) wells were purged dry without recovery (MW-7 and MW-10). Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from less than the laboratory MDL in wells MW-3 and MW-20 to 1.21 mg/L in MW-19. Benzene concentrations exceeded the NMWQCC

groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-4, MW-18, and MW-19.

- Toluene concentrations were less than the laboratory MDL in all monitor wells except MW-12 which had a concentration of 0.000510 mg/L, MW-16 with a concentration of 0.000380 mg/L, and MW-18 with a concentration of 0.0242 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations were less than the laboratory MDL in wells MW-1, MW-3, MW-5, MW-8, MW-9, MW-19, and MW-20 to 0.0497 mg/L in MW-4. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations were less than the laboratory MDL in wells MW-1, MW-3, MW-5, MW-8, MW-9, MW-19, and MW-20 to 0.0722 mg/L in MW-4. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.

During the December 2020 sampling event, groundwater samples were collected from thirteen (13) monitor wells MW-1, MW-3 through MW-5, MW-8, MW-9, MW-11, MW-12, MW-15, MW-16, MW-18, MW-19, and MW-20. Groundwater samples were not collected from four (4) monitor wells due to PSH (MW-2, MW-13, MW-14, and MW-17); two (2) wells were gauged dry (MW-6 and MW-10); and one (1) well was purged dry without recovery (MW-7). Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from 0.000590 mg/L in MW-8 to 0.336 mg/L in MW-19. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-18 and MW-19.
- Toluene concentrations were less than the laboratory MDL in all monitor wells except MW-18 and MW-19 with concentrations of 0.0196 mg/L and 0.00208 mg/L respectively. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Ethylbenzene concentrations ranged from less than the laboratory MDL in MW-20 to 0.0364 mg/L in MW-3. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any monitor wells sampled this quarter.
- Xylene concentrations ranged from less than the laboratory MDL in MW-20 to 0.0597 mg/L in MW-3. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any monitor wells sampled this quarter.

The laboratory analytical results are summarized in Table 2 and Table 3– Summary of Historical Groundwater Analytical Results 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 Lovington Deep 6" site and Section 4.2 provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction is to east with an average gradient of average 0.0037 ft/ft based on the water level measurement data collected in 2020.
- Groundwater levels at the subject site have slightly decreased at an average of 0.26 feet for the year 2020.
- PSH has impacted monitor wells MW-2, MW-13, MW-14, and MW-17 in 2020.
- Approximately 56.02 bbls of PSH was recovered during the year 2020.
- The benzene concentration in MW-18 exceeded the NMWQCC groundwater standard of 0.0100 mg/L during all sampling events. In addition, monitor wells MW-4, MW-10, MW-18, MW-19, and MW-20 exceeded the benzene NMWQCC groundwater standard of 0.01000 mg/L during the March sampling event. Monitor well MW-10 and MW-18 exceeded the benzene NMWQCC groundwater standard of 0.01000 mg/L during the June event. Monitor wells MW-4, MW-18, and MW-19 exceeded the benzene NMWQCC groundwater standard of 0.01000 mg/L during the September event. Monitor wells MW-18 and MW-19 exceeded the NMWQCC groundwater standard of 0.01000 mg/L during the December sampling event.

4.2 Recommendations

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

- Continue monthly MDPE events.
- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Discontinue PAH sampling in wells MW-4, MW-10, MW-12, MW-18, MW-19, and MW-20. Analytical results for PAH constituents have been below NMWQCC groundwater standards for the past two consecutive years.

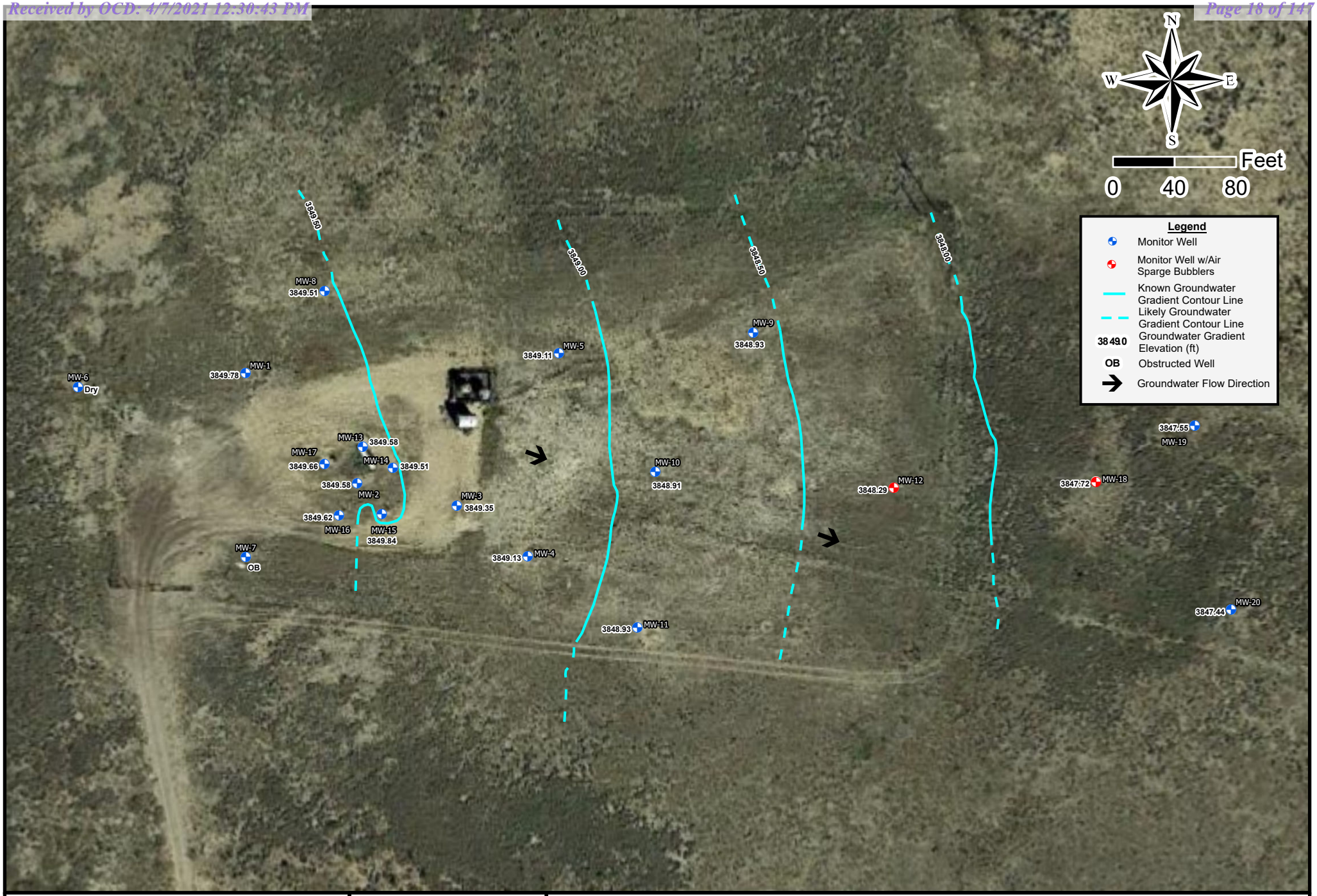
APPENDIX A

Figures

TALON LPE

Drafted: 4/7/2021
1 in = 80 ft
Drafted By: NRC

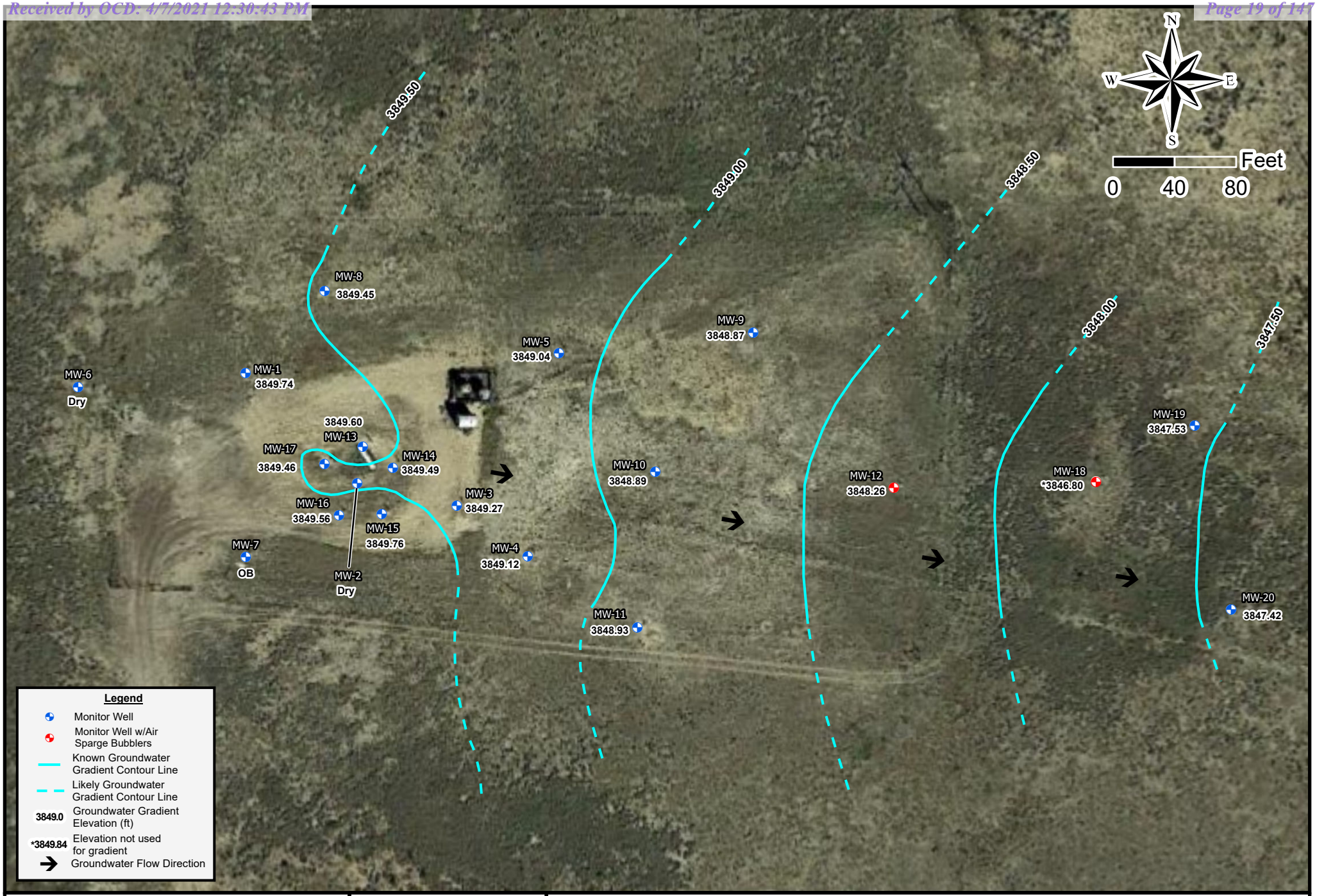
Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 1 - Site Plan



TALON LPE

Drafted: 4/6/2021
1 in = 80 ft
Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 2a - Groundwater Gradient Map (03/11/2020)



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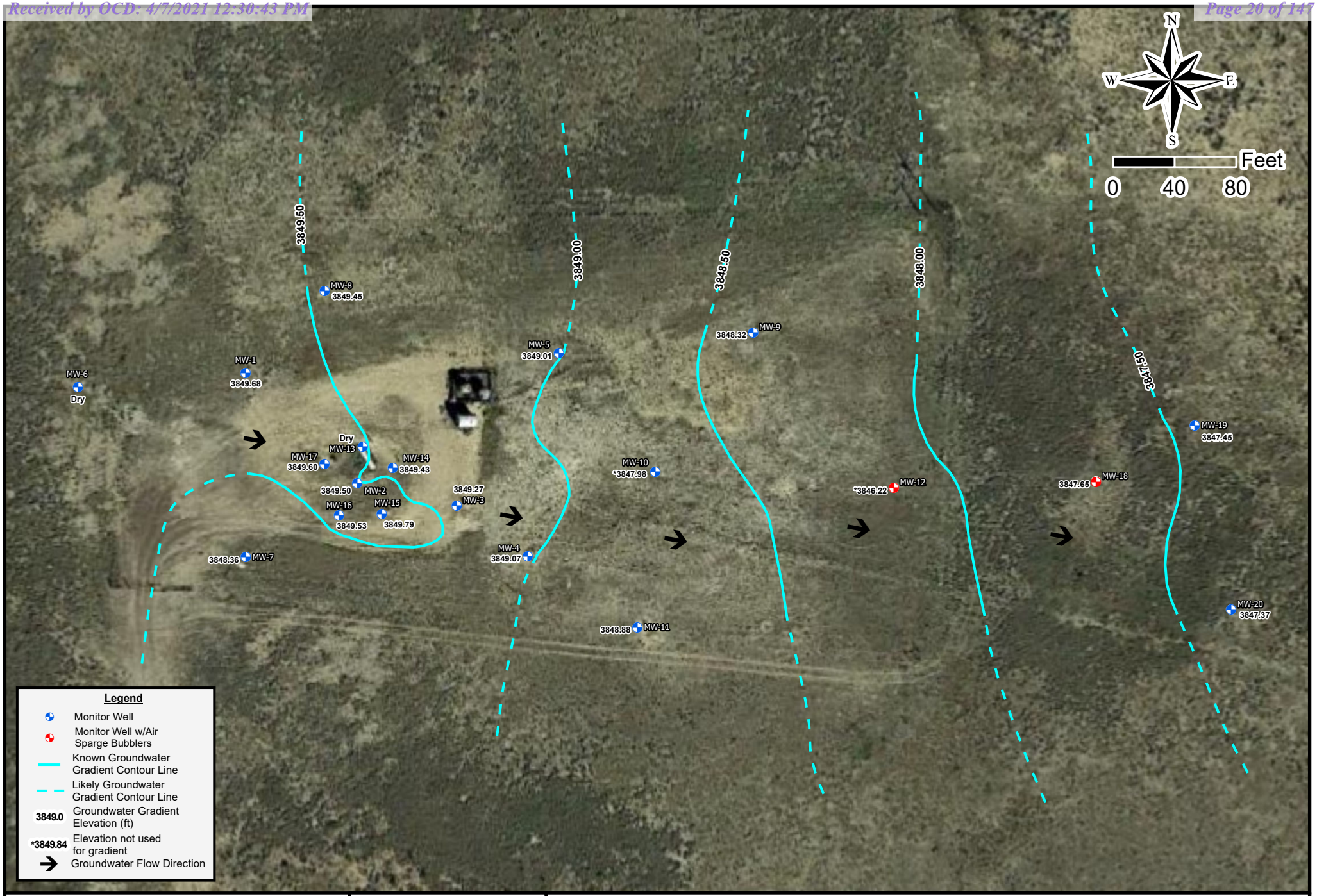
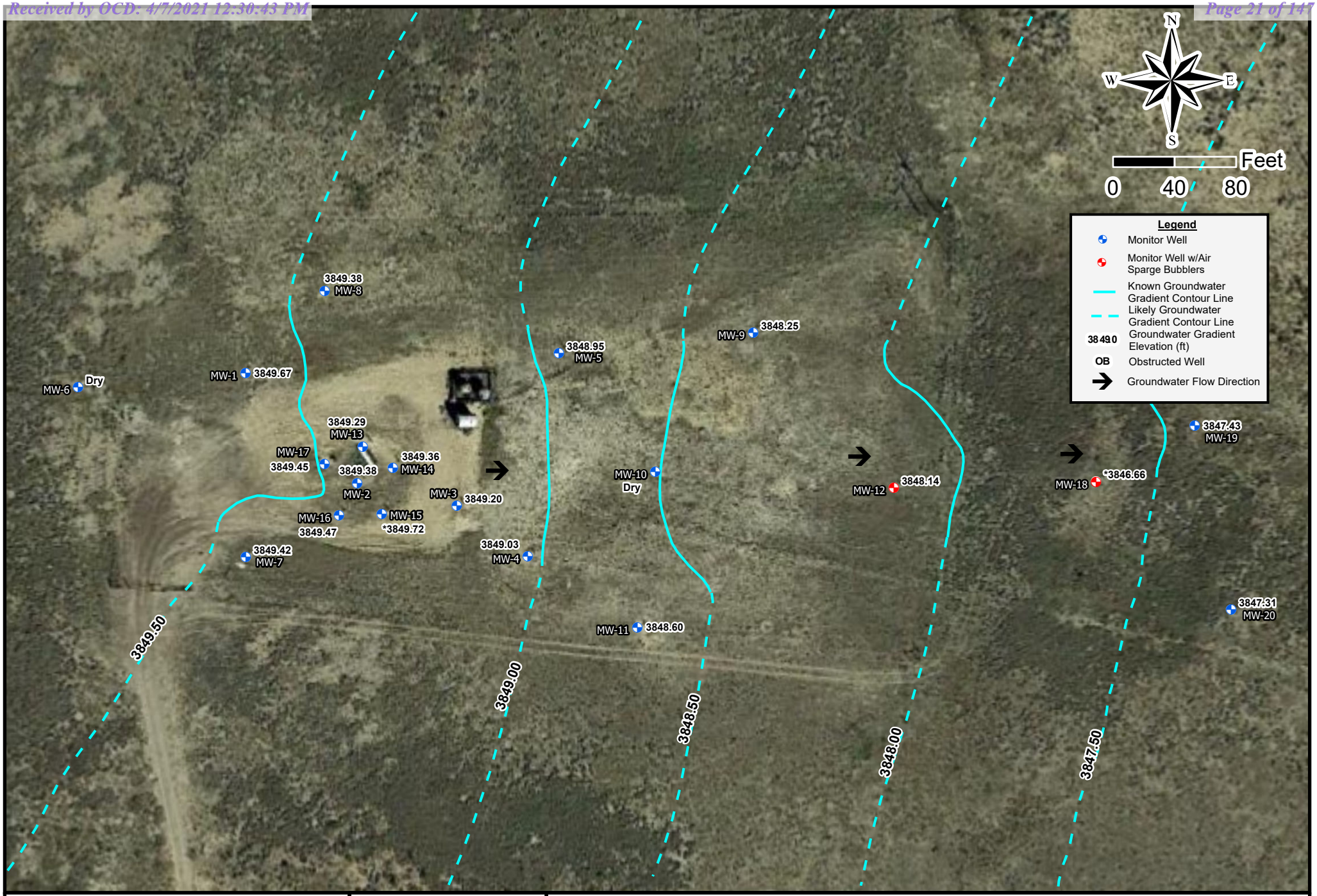
Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 2b - Groundwater Gradient Map (06/09/2020)



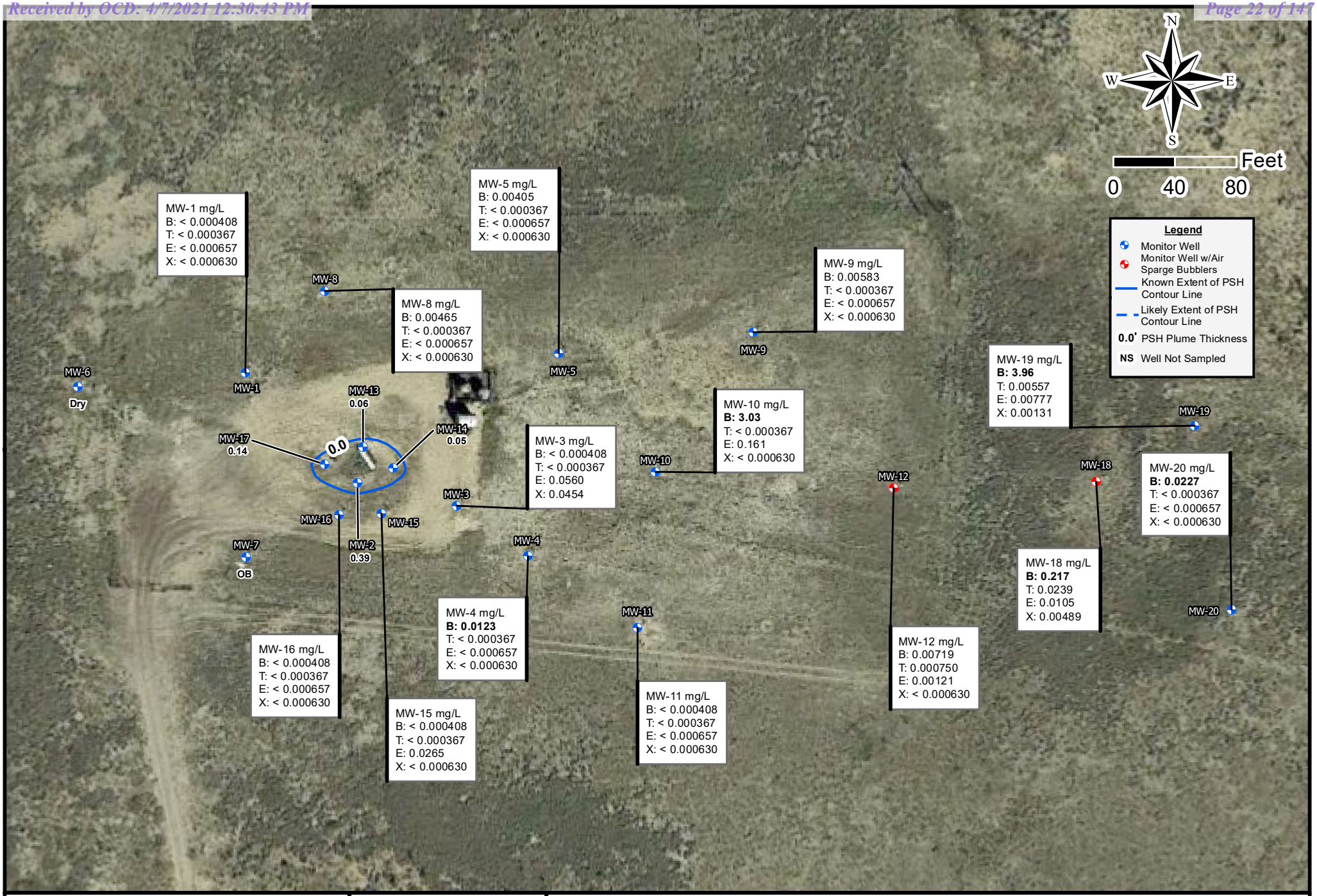
TALON LPE

Drafted: 4/6/2021
1 in = 80 ft
Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 2c - Groundwater Gradient Map (09/04/2020)



TALON LPE	Drafted: 4/6/2021 1 in = 80 ft Drafted By: NRC	Lovington Deep 6" SRS # 2002-10312, NMOCD REF. #nAPP2109530339 SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico 32.867039, -103.387542 Figure 2d - Groundwater Gradient Map (12/11/2020)



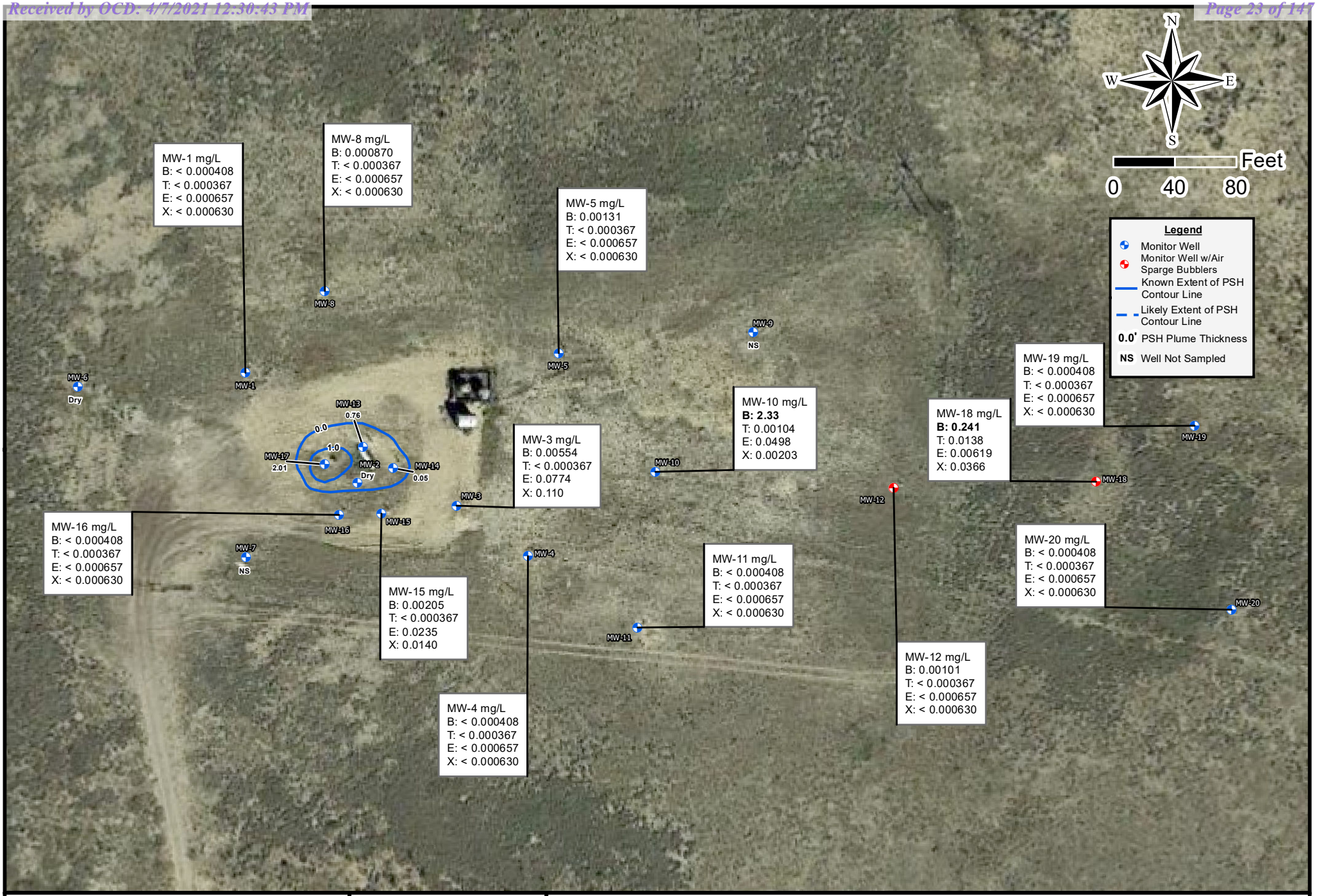
TALON LPE

Drafted: 4/6/2021

1 in = 80 ft

Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 3a - PSH Thickness and Groundwater Concentration Map (03/11-12/2020)



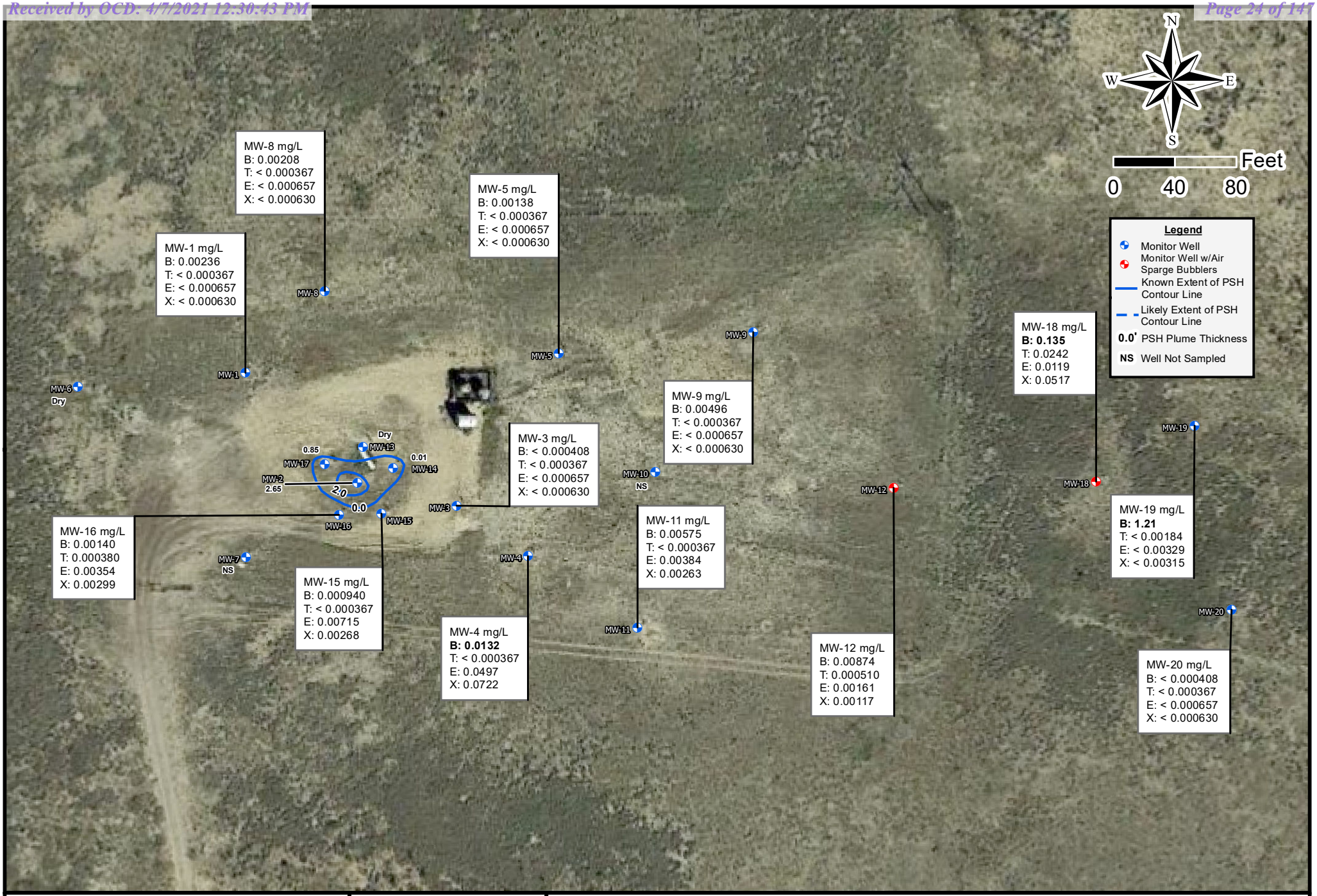
TALON LPE

Drafted: 4/6/2021

1 in = 80 ft

Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 3b - PSH Thickness and Groundwater Concentration Map - (06/09-11/2020)



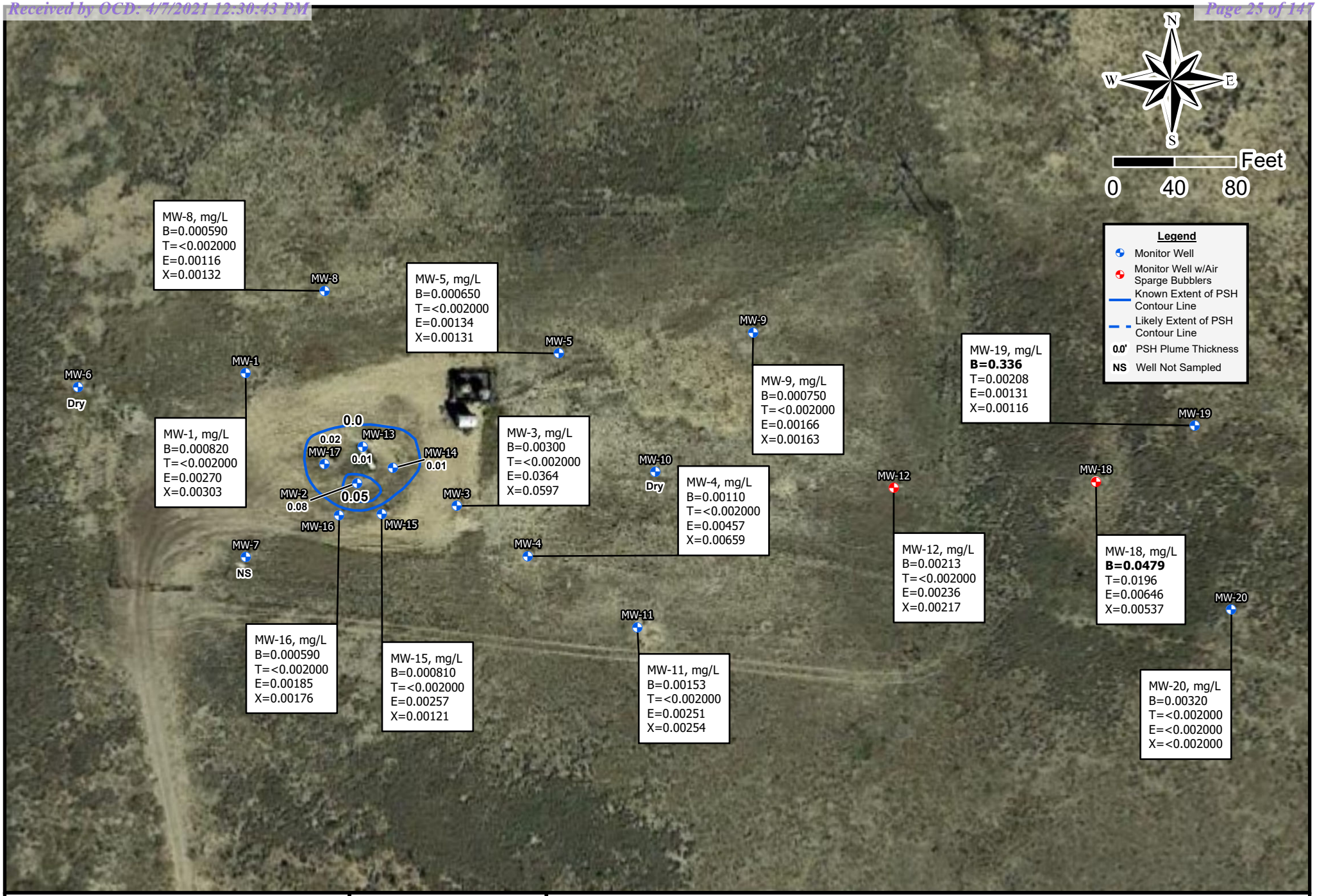
TALON LPE

Drafted: 4/6/2021

1 in = 80 ft

Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 3c - PSH Thickness and Groundwater Concentration Map (09/04 & 08 & 10-11/2020)



TALON LPE

Drafted: 4/6/2021
1 in = 80 ft
Drafted By: NRC

Lovington Deep 6"
SRS # 2002-10312, NMOCD REF. #nAPP2109530339
SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E, Lea County, New Mexico
32.867039, -103.387542
Figure 3d - PSH Thickness and Groundwater Concentration Map (12/14-15/2020)

APPENDIX B

Tables

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-1 4"	3915.51	54	74	03/08/2016	64.98	-	-	3850.53
				05/24/2016	65.02	-	-	3850.49
				09/08/2016	65.06	-	-	3850.45
				12/05/2016	64.76	-	-	3850.75
				03/08/2017	64.80	-	-	3850.71
				06/13/2017	65.21	-	-	3850.30
				09/12/2017	65.22	-	-	3850.29
				12/13/2017	65.28	-	-	3850.23
				03/23/2018	65.33	-	-	3850.18
				06/12/2018	65.38	-	-	3850.13
				09/10/2018	65.34	-	-	3850.17
				12/11/2018	65.49	-	-	3850.02
				03/13/2019	65.54	-	-	3849.97
				06/10/2019	64.59	-	-	3850.92
				09/25/2019	65.83	-	-	3849.68
				12/06/2019	65.65	-	-	3849.86
				03/11/2020	65.73	-	-	3849.78
				05/06/2020	65.70	-	-	3849.81
				06/09/2020	65.77	-	-	3849.74
				09/04/2020	65.83	-	-	3849.68
				12/11/2020	65.84	-	-	3849.67
MW-2 4"	3915.04	54	74	03/08/2016	68.80	63.91	4.89	3850.32
				05/24/2016	68.57	64.00	4.57	3850.29
				09/08/2016	68.32	64.08	4.24	3850.26
				12/01/2016	68.67	64.10	4.57	3850.19
				03/08/2017	68.33	64.20	4.13	3850.16
				06/13/2017	68.42	64.20	4.22	3850.14
				09/12/2017	68.30	64.30	4.00	3850.08
				12/13/2017	68.00	64.40	3.60	3850.05
				03/23/2018	65.22	65.05	0.17	3849.96
				06/12/2018	67.10	64.50	2.60	3850.11
				09/10/2018	66.52	64.50	2.02	3850.21
				12/11/2018	68.28	64.60	3.68	3849.83
				03/13/2019	66.82	65.12	1.70	3849.64
				06/10/2019	DR	-	-	-
				12/06/2019	DR	-	-	-
				03/11/2020	65.79	65.40	0.39	3849.58
				05/06/2020	66.92	65.20	1.72	3849.56
				06/09/2020	DR	-	-	-
				09/04/2020	67.75	65.10	2.65	3849.50
				12/11/2020	65.73	65.65	0.08	3849.38
MW-3 4"	3915.24	54	74	03/08/2016	65.16	-	-	3850.08
				05/24/2016	65.21	-	-	3850.03
				09/08/2016	65.25	-	-	3849.99
				12/05/2016	65.27	-	-	3849.97
				03/08/2017	65.33	-	-	3849.91
				06/13/2017	65.39	-	-	3849.85
				09/12/2017	65.44	-	-	3849.80
				12/13/2017	65.70	-	-	3849.54
				03/23/2018	65.50	-	-	3849.74
				06/12/2018	65.59	-	-	3849.65
				09/10/2018	65.52	-	-	3849.72
				12/11/2018	65.66	-	-	3849.58
				03/13/2019	65.69	-	-	3849.55
				06/10/2019	65.75	-	-	3849.49
				09/25/2019	65.80	-	-	3849.44
				12/06/2019	65.85	-	-	3849.39
				03/11/2020	65.89	-	-	3849.35
				06/09/2020	65.97	-	-	3849.27
				09/04/2020	65.97	-	-	3849.27
				12/11/2020	66.04	-	-	3849.20

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-4 2"	3915.3	54	74	03/08/2016	65.41	-	-	3849.89
				05/24/2016	65.44	-	-	3849.86
				09/08/2016	65.47	-	-	3849.83
				12/05/2016	65.50	-	-	3849.80
				03/08/2017	65.55	-	-	3849.75
				06/13/2017	65.61	-	-	3849.69
				09/12/2017	65.64	-	-	3849.66
				12/13/2017	65.70	-	-	3849.60
				03/23/2018	65.73	-	-	3849.57
				06/12/2018	65.81	-	-	3849.49
				09/10/2018	65.74	-	-	3849.56
				12/11/2018	65.90	-	-	3849.40
				03/13/2019	65.96	-	-	3849.34
				06/10/2019	66.00	-	-	3849.30
				09/25/2019	66.04	-	-	3849.26
				12/06/2019	66.13	-	-	3849.17
				03/11/2020	66.17	-	-	3849.13
				05/06/2020	66.12	-	-	3849.18
				06/09/2020	66.18	-	-	3849.12
				09/04/2020	66.23	-	-	3849.07
				12/11/2020	66.27	-	-	3849.03
MW-5 4"	3915.26	54	74	03/08/2016	65.42	-	-	3849.84
				05/24/2016	65.47	-	-	3849.79
				09/08/2016	65.51	-	-	3849.75
				12/05/2016	65.52	-	-	3849.74
				03/08/2017	65.59	-	-	3849.67
				06/13/2017	65.65	-	-	3849.61
				09/12/2017	65.70	-	-	3849.56
				12/13/2017	65.75	-	-	3849.51
				03/23/2018	65.78	-	-	3849.48
				06/12/2018	65.90	-	-	3849.36
				09/10/2018	65.78	-	-	3849.48
				12/11/2018	65.93	-	-	3849.33
				03/13/2019	65.95	-	-	3849.31
				06/10/2019	66.02	-	-	3849.24
				09/25/2019	66.06	-	-	3849.20
				12/06/2019	66.15	-	-	3849.11
				03/11/2020	66.15	-	-	3849.11
				05/06/2020	65.90	-	-	3849.36
				06/09/2020	66.22	-	-	3849.04
				09/04/2020	66.25	-	-	3849.01
				12/11/2020	66.31	-	-	3848.95
MW-6 2"	3915.45	52	72	03/08/2016	64.71	-	-	3850.74
				05/24/2016	64.74	-	-	3850.71
				09/08/2016	64.80	-	-	3850.65
				12/05/2016	64.85	-	-	3850.60
				03/08/2017	64.90	-	-	3850.55
				06/13/2017	64.91	-	-	3850.54
				09/12/2017	64.97	-	-	3850.48
				12/13/2017	65.02	-	-	3850.43
				03/23/2018	65.04	-	-	3850.41
				06/12/2018	65.11	-	-	3850.34
				09/10/2018	65.04	-	-	3850.41
				12/11/2018	65.22	-	-	3850.23
				03/13/2019	65.23	-	-	3850.22
				06/10/2019	68.27	-	-	3847.18
				09/25/2019	DR	-	-	-
				12/06/2019	DR	-	-	-
				03/11/2020	DR	-	-	-
				05/06/2020	DR	-	-	-
				06/09/2020	DR	-	-	-
				09/04/2020	DR	-	-	-
				12/11/2020	DR	-	-	-

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-7 2"	3914.73	51	71	03/08/2016	64.39	-	-	3850.34
				05/24/2016	64.46	-	-	3850.27
				09/08/2016	64.49	-	-	3850.24
				12/05/2016	64.50	-	-	3850.23
				03/08/2017	64.29	-	-	3850.44
				06/13/2017	64.61	-	-	3850.12
				09/12/2017	64.67	-	-	3850.06
				12/13/2017	64.72	-	-	3850.01
				03/23/2018	65.75	-	-	3848.98
				06/12/2018	64.86	-	-	3849.87
				09/10/2018	64.78	-	-	3849.95
				12/11/2018	64.91	-	-	3849.82
				03/13/2019	64.91	-	-	3849.82
				06/10/2019	64.98	-	-	3849.75
				09/25/2019	65.04	-	-	3849.69
				12/06/2019	65.10	-	-	3849.63
				03/11/2020	OB	-	-	-
				05/06/2020	OB	-	-	-
				06/09/2020	OB	-	-	-
				09/04/2020	66.37	-	-	3848.36
				12/11/2020	65.31	-	-	3849.42
MW-8 2"	3915.19	53	73	03/08/2016	64.95	-	-	3850.24
				05/24/2016	65.00	-	-	3850.19
				09/08/2016	65.04	-	-	3850.15
				12/05/2016	65.07	-	-	3850.12
				03/08/2017	65.10	-	-	3850.09
				06/13/2017	65.17	-	-	3850.02
				09/12/2017	65.21	-	-	3849.98
				12/13/2017	65.26	-	-	3849.93
				03/23/2018	65.28	-	-	3849.91
				06/12/2018	65.36	-	-	3849.83
				09/10/2018	65.31	-	-	3849.88
				12/11/2018	65.45	-	-	3849.74
				03/13/2019	65.49	-	-	3849.70
				06/10/2019	65.52	-	-	3849.67
				09/25/2019	65.60	-	-	3849.59
				12/06/2019	65.83	-	-	3849.36
				03/11/2020	65.68	-	-	3849.51
				05/06/2020	65.68	-	-	3849.51
				06/09/2020	65.74	-	-	3849.45
				09/04/2020	65.74	-	-	3849.45
				12/11/2020	65.81	-	-	3849.38
MW-9 2"	3913.92	55	75	03/08/2016	64.33	-	-	3849.59
				05/24/2016	64.32	-	-	3849.60
				09/08/2016	64.35	-	-	3849.57
				12/05/2016	64.36	-	-	3849.56
				03/08/2017	63.38	-	-	3850.54
				06/13/2017	65.46	-	-	3848.46
				09/12/2017	64.53	-	-	3849.39
				12/13/2017	64.59	-	-	3849.33
				03/23/2018	64.75	-	-	3849.17
				06/12/2018	64.68	-	-	3849.24
				09/10/2018	64.71	-	-	3849.21
				12/11/2018	64.76	-	-	3849.16
				03/13/2019	64.80	-	-	3849.12
				06/10/2019	64.85	-	-	3849.07
				09/25/2019	64.90	-	-	3849.02
				12/06/2019	64.97	-	-	3848.95
				03/11/2020	64.99	-	-	3848.93
				05/06/2020	65.00	-	-	3848.92
				06/09/2020	65.05	-	-	3848.87
				09/04/2020	65.60	-	-	3848.32
				12/11/2020	65.67	-	-	3848.25

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-10 2"	3914.96	53	73	03/08/2016	65.32	-	-	3849.64
				05/24/2016	65.40	-	-	3849.56
				09/08/2016	65.41	-	-	3849.55
				12/05/2016	65.48	-	-	3849.48
				03/08/2017	65.50	-	-	3849.46
				06/13/2017	65.54	-	-	3849.42
				09/12/2017	65.46	-	-	3849.50
				12/13/2017	65.66	-	-	3849.30
				03/23/2018	65.64	-	-	3849.32
				06/12/2018	65.30	-	-	3849.66
				09/10/2018	65.72	-	-	3849.24
				12/11/2018	65.82	-	-	3849.14
				03/13/2019	65.87	-	-	3849.09
				06/10/2019	65.92	-	-	3849.04
				09/25/2019	65.97	-	-	3848.99
				12/06/2019	66.02	-	-	3848.94
				03/11/2020	66.05	-	-	3848.91
				05/06/2020	66.00	-	-	3848.96
				06/09/2020	66.07	-	-	3848.89
				09/04/2020	66.98	-	-	3847.98
				12/11/2020	DR	-	-	-
MW-11 2"	3914.4	52	72	03/08/2016	64.70	-	-	3849.70
				05/24/2016	65.77	-	-	3848.63
				09/08/2016	64.80	-	-	3849.60
				12/05/2016	64.81	-	-	3849.59
				03/08/2017	64.90	-	-	3849.50
				06/13/2017	64.93	-	-	3849.47
				09/12/2017	64.97	-	-	3849.43
				12/13/2017	65.04	-	-	3849.36
				03/23/2018	65.03	-	-	3849.37
				06/12/2018	65.19	-	-	3849.21
				09/10/2018	65.08	-	-	3849.32
				12/11/2018	65.21	-	-	3849.19
				03/13/2019	65.25	-	-	3849.15
				06/10/2019	65.34	-	-	3849.06
				09/25/2019	65.36	-	-	3849.04
				12/06/2019	65.43	-	-	3848.97
				03/11/2020	65.47	-	-	3848.93
				05/06/2020	65.45	-	-	3848.95
				06/09/2020	65.47	-	-	3848.93
				09/04/2020	65.52	-	-	3848.88
				12/11/2020	65.80	-	-	3848.60
MW-12 2"	3913.97	58	78	03/08/2016	64.93	-	-	3849.04
				05/24/2016	64.98	-	-	3848.99
				09/08/2016	65.02	-	-	3848.95
				12/05/2016	65.05	-	-	3848.92
				03/08/2017	65.07	-	-	3848.90
				06/13/2017	65.18	-	-	3848.79
				09/12/2017	64.95	-	-	3849.02
				12/13/2017	64.76	-	-	3849.21
				03/23/2018	64.45	-	-	3849.52
				06/12/2018	65.20	-	-	3848.77
				09/10/2018	65.31	-	-	3848.66
				12/11/2018	65.45	-	-	3848.52
				03/13/2019	65.46	-	-	3848.51
				06/10/2019	65.57	-	-	3848.40
				09/25/2019	65.59	-	-	3848.38
				12/06/2019	65.67	-	-	3848.30
				03/11/2020	65.68	-	-	3848.29
				05/06/2020	65.70	-	-	3848.27
				06/09/2020	65.71	-	-	3848.26
				09/04/2020	67.75	-	-	3846.22
				12/11/2020	65.83	-	-	3848.14

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-13 4"	3915.83	54	79	03/08/2016	67.60	65.10	2.50	3850.32
				05/24/2016	66.69	65.31	1.38	3850.29
				09/08/2016	66.53	65.42	1.11	3850.23
				12/01/2016	66.94	65.41	1.53	3850.17
				03/08/2017	66.80	65.42	1.38	3850.18
				06/13/2017	66.45	65.57	0.88	3850.11
				09/12/2017	66.45	65.58	0.87	3850.11
				12/13/2017	66.20	65.71	0.49	3850.04
				03/23/2018	65.81	65.80	0.01	3850.03
				06/12/2018	66.55	65.80	0.75	3849.91
				09/10/2018	65.88	65.78	0.10	3850.03
				12/11/2018	67.00	65.80	1.20	3849.83
				03/13/2019	66.27	66.12	0.15	3849.69
				06/10/2019	67.20	66.00	1.20	3849.63
				09/25/2019	66.55	66.04	0.51	3849.71
				12/06/2019	66.80	66.25	0.55	3849.49
				03/11/2020	66.30	66.24	0.06	3849.58
				05/06/2020	66.35	66.20	0.15	3849.61
				06/09/2020	66.86	66.10	0.76	3849.60
				09/04/2020	DR	-	-	-
				12/11/2020	66.55	66.54	0.01	3849.29
MW-14 4"	3915.72	53	78	03/08/2016	68.35	64.91	3.44	3850.24
				05/24/2016	65.62	65.49	0.13	3850.21
				09/08/2016	65.73	65.54	0.19	3850.15
				12/01/2016	66.31	65.50	0.81	3850.09
				03/08/2017	66.25	65.50	0.75	3850.10
				06/13/2017	66.72	65.50	1.22	3850.02
				09/12/2017	67.05	65.50	1.55	3849.96
				12/13/2017	66.90	65.45	1.45	3850.03
				03/23/2018	67.75	65.42	2.33	3849.92
				06/12/2018	68.09	65.49	2.60	3849.80
				09/10/2018	65.19	65.18	0.01	3850.54
				12/11/2018	66.08	65.95	0.13	3849.75
				03/13/2019	66.05	66.03	0.02	3849.69
				06/10/2019	66.12	66.08	0.04	3849.63
				09/25/2019	66.12	66.10	0.02	3849.62
				12/06/2019	66.20	66.17	0.03	3849.55
				03/11/2020	66.25	66.20	0.05	3849.51
				05/06/2020	66.25	66.20	0.05	3849.51
				06/09/2020	66.27	66.22	0.05	3849.49
				09/04/2020	66.30	66.29	0.01	3849.43
				12/11/2020	66.37	66.36	0.01	3849.36
MW-15 4"	3915.84	54	79	03/08/2016	65.81	65.20	0.61	3850.54
				05/24/2016	65.87	65.21	0.66	3850.52
				09/08/2016	65.42	65.36	0.06	3850.47
				12/01/2016	65.48	65.42	0.06	3850.41
				03/08/2017	65.45	65.40	0.05	3850.43
				06/13/2017	65.68	65.46	0.22	3850.34
				09/12/2017	65.57	65.52	0.05	3850.31
				12/13/2017	65.65	65.59	0.06	3850.24
				03/23/2018	65.68	65.59	0.09	3850.24
				06/12/2018	65.80	65.65	0.15	3850.17
				09/10/2018	65.61	-	-	3850.23
				12/11/2018	65.77	-	-	3850.07
				03/13/2019	65.79	-	-	3850.05
				06/10/2019	65.84	-	-	3850.00
				09/25/2019	65.90	-	-	3849.94
				12/06/2019	65.97	-	-	3849.87
				03/11/2020	66.00	-	-	3849.84
				05/06/2020	66.00	-	-	3849.84
				06/09/2020	66.08	-	-	3849.76
				09/04/2020	66.05	-	-	3849.79
				12/11/2020	66.12	-	-	3849.72

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-16 4"	3915.43	54	79	03/08/2016	65.78	65.00	0.78	3850.30
				05/24/2016	65.85	65.00	0.85	3850.29
				09/08/2016	65.23	65.20	0.03	3850.23
				12/01/2016	65.32	65.23	0.09	3850.19
				03/08/2017	65.27	65.21	0.06	3850.21
				06/13/2017	65.35	65.29	0.06	3850.13
				09/12/2017	65.40	65.33	0.07	3850.09
				12/13/2017	65.44	65.38	0.06	3850.04
				03/23/2018	65.48	65.40	0.08	3850.02
				06/12/2018	65.65	65.45	0.20	3849.95
				09/10/2018	65.45	-	-	3849.98
				12/11/2018	65.60	-	-	3849.83
				03/13/2019	65.60	-	-	3849.83
				06/10/2019	65.65	-	-	3849.78
				09/25/2019	65.75	-	-	3849.68
				12/06/2019	65.86	-	-	3849.57
				03/11/2020	65.81	-	-	3849.62
				05/06/2020	65.82	-	-	3849.61
				06/09/2020	65.87	-	-	3849.56
				09/04/2020	65.90	-	-	3849.53
				12/11/2020	65.96	-	-	3849.47
MW-17 4"	3915.59	58	78	03/08/2016	68.59	64.51	4.08	3850.41
				05/24/2016	67.19	64.85	2.34	3850.35
				09/08/2016	66.61	65.04	1.57	3850.29
				12/01/2016	67.28	65.96	1.32	3849.41
				03/08/2017	66.97	65.03	1.94	3850.24
				06/13/2017	66.65	65.14	1.51	3850.20
				09/12/2017	66.43	65.28	1.15	3850.12
				12/13/2017	66.07	65.40	0.67	3850.08
				03/23/2018	65.64	65.51	0.13	3850.06
				06/12/2018	66.50	65.44	1.06	3849.98
				09/10/2018	66.59	65.38	1.21	3850.01
				12/11/2018	67.24	65.40	1.84	3849.89
				03/13/2019	66.19	65.84	0.35	3849.69
				06/10/2019	67.21	65.50	1.71	3849.81
				09/25/2019	66.55	65.68	0.87	3849.77
				12/06/2019	65.87	65.70	0.17	3849.86
				03/11/2020	66.05	65.91	0.14	3849.66
				05/06/2020	66.25	65.85	0.4	3849.67
				06/09/2020	67.81	65.80	2.01	3849.46
				09/04/2020	66.70	65.85	0.85	3849.60
				12/11/2020	66.16	66.14	0.02	3849.45
MW-18 4"	3912.9	55	80	03/08/2016	64.19	-	-	3848.71
				05/24/2016	63.45	-	-	3849.45
				09/08/2016	64.50	-	-	3848.40
				12/05/2016	64.62	-	-	3848.28
				03/08/2017	64.50	-	-	3848.40
				06/13/2017	64.70	-	-	3848.20
				09/12/2017	63.83	-	-	3849.07
				12/13/2017	64.66	-	-	3848.24
				03/23/2018	64.69	-	-	3848.21
				06/12/2018	64.75	-	-	3848.15
				09/10/2018	65.85	-	-	3847.05
				12/11/2018	64.87	-	-	3848.03
				03/13/2019	64.90	-	-	3848.00
				06/10/2019	64.97	-	-	3847.93
				09/25/2019	65.01	-	-	3847.89
				12/06/2019	66.10	-	-	3846.80
				03/11/2020	65.18	-	-	3847.72
				05/06/2020	65.10	-	-	3847.80
				06/09/2020	66.10	-	-	3846.80
				09/04/2020	65.25	-	-	3847.65
				12/11/2020	66.24	-	-	3846.66

Table 1 - Gauging and NAPL Thickness - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Casing Elevation (fmsl)	Top of Screen (ft)	Bottom of Screen (ft)	Date Sampled (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (fmsl)
MW-19 4"	3913.35	60	80	09/10/2018	65.41	-	-	3847.94
				12/11/2018	65.55	-	-	3847.80
				03/13/2019	65.58	-	-	3847.77
				06/10/2019	65.65	-	-	3847.70
				09/25/2019	65.68	-	-	3847.67
				12/06/2019	65.75	-	-	3847.60
				03/11/2020	65.80	-	-	3847.55
				05/06/2020	65.80	-	-	3847.55
				06/09/2020	65.82	-	-	3847.53
				09/04/2020	65.90	-	-	3847.45
				12/11/2020	65.92	-	-	3847.43
MW-20 4"	3912.13	60	80	09/10/2018	64.31	-	-	3847.82
				12/11/2018	65.45	-	-	3846.68
				03/13/2019	64.48	-	-	3847.65
				06/10/2019	65.57	-	-	3846.56
				09/25/2019	65.60	-	-	3846.53
				12/06/2019	64.66	-	-	3847.47
				03/11/2020	64.69	-	-	3847.44
				05/06/2020	64.68	-	-	3847.45
				06/09/2020	64.71	-	-	3847.42
				09/04/2020	64.76	-	-	3847.37
				12/11/2020	64.82	-	-	3847.31

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
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

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-1	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.000700 J	<0.00100	<0.000657	<0.000642	0.000700 J
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/11/2018	<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	0.00442	<0.000367	<0.000657	<0.00063	0.00442
	06/11/2019	<0.000371	<0.000333	<0.000597	<0.000572	<0.000333
	09/26/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/07/2019	0.00424	<0.000367	0.000660	<0.000630	0.00490
	03/12/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/10/2020	0.00236	<0.000367	<0.000657	<0.000630	0.00236
	12/14/2020	0.000820 J	<0.002000	0.00270	0.00303	0.006550
MW-3	03/08/2016	**0.127**	<0.000238	0.0904	0.0707	-
	05/24/2016	**0.151**	<0.000238	0.129	0.107	-
	09/08/2016	**0.166**	<0.000621	0.132	0.123	-
	12/05/2016	**0.261**	<0.00100	0.217	0.234	-
	03/08/2017	**0.146**	<0.000367	0.143	0.146	0.435
	06/13/2017	**0.159**	0.00296	0.238	0.156	0.556
	09/14/2017	**0.101**	<0.000367	0.178	0.129	0.408
	12/18/2017	**0.0232**	0.000750 J	0.0325	0.0228	0.0792
	03/26/2018	**0.0119**	0.00131 J	0.0241	0.0171	0.0544
	06/12/2018	**0.0108**	<0.000512	0.0266	0.0176	0.0550
	09/11/2018	**0.0132**	<0.000367	0.0317	0.0184	0.0633
	12/12/2018	**0.0341**	<0.000512	0.0725	0.123	0.230
	03/15/2019	**0.0189**	0.00157	0.0822	0.120	0.222
	06/10/2019	**0.0101**	<0.000342	0.0551	0.0419	0.107
	09/26/2019	0.00860	<0.000367	0.0480	0.0380	0.0946
	12/07/2019	0.00508	<0.000367	0.0360	0.0189	0.0600
	03/12/2020	<0.000408	<0.000367	0.0560	0.0454	0.101
	06/11/2020	0.00554 F	<0.000367 F	0.0774 LF	0.110	0.193
	09/08/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/14/2020	0.00300	<0.002000	0.0364	0.0597	0.09914
MW-4	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	<0.000408	<0.00100	<0.000657	<0.000642	<0.000408
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	0.00140	<0.000512	<0.000616	<0.000270	0.00140
	09/11/2018	<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	0.000980	0.00107	0.00205
	06/10/2019	<0.000372	<0.000335	<0.0006	<0.000575	<0.000335
	09/26/2019	0.00619	<0.000367	<0.000657	<0.000630	0.00619
	12/07/2019	0.000710	<0.000367	<0.000657	<0.000630	0.000710
	03/11/2020	**0.0123**	<0.000367	<0.000657	<0.000630	0.0123
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/08/2020	**0.0132**	<0.000367	0.0497	0.0722	0.135
	12/14/2020	0.00110 J	<0.002000	0.00457	0.00659	0.01226

Table 2 - Groundwater Analytical Data - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-5	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.000800 J	<0.00100	<0.000657	<0.000642	0.000800 J
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/11/2018	<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	0.00692	<0.000367	<0.000657	<0.00063	0.00692
	06/11/2019	<0.000387	<0.000348	<0.000623	<0.000597	<0.000348
	09/26/2019	**0.0132**	<0.000367	<0.000657	<0.000630	0.0132
	12/07/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/12/2020	0.00405	<0.000367	<0.000657	<0.000630	0.00405
	06/11/2020	0.00131 JF	<0.000367 F	<0.000657 LF	<0.000630	0.00131 J
	09/10/2020	0.00138 J	<0.000367	<0.000657	<0.000630	0.00138 J
	12/15/2020	0.000650 J	<0.002000	0.00134 J	0.00131 J	0.003300
MW-6	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.00344	<0.00100	<0.000657	<0.000642	0.00344
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	0.000720 J	<0.000657	<0.000630	0.000720 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/11/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	0.00396	<0.000367	<0.000657	<0.00063	0.00396
MW-7	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.00481	<0.00100	<0.000657	<0.000642	0.00481
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	0.00150	<0.000512	0.00120	<0.000270	0.00270
	09/11/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	0.000630	<0.000367	<0.000657	<0.00063	0.000630
	06/10/2019	**0.0407**	<0.000314	<0.000562	<0.000538	0.0407
	09/26/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/07/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367

Table 2 - Groundwater Analytical Data - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-8	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.00272	<0.00100	<0.000657	<0.000642	0.00272
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	0.000610 J	<0.000657	<0.000630	0.000610 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/11/2018	<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	0.00530	<0.000367	<0.000657	<0.00063	0.00530
	06/11/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	09/26/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/07/2019	**0.0586**	<0.000367	0.00422	<0.000630	0.0628
	03/12/2020	0.00465	<0.000367	<0.000657	<0.000630	0.00465
	06/11/2020	0.000870 JF	<0.000367 F	<0.000657 LF	<0.000630	0.000870 J
	09/10/2020	0.00208	<0.000367	<0.000657	<0.000630	0.00208
	12/15/2020	0.000590 J	<0.002000	0.00116 J	0.00132 J	0.003070
MW-9	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/13/2017	0.00113 J	<0.00100	<0.000657	<0.000642	0.00113 J
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	0.000680 J	<0.000657	<0.000630	0.000680 J
	06/12/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	09/11/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	0.000930	<0.000367	<0.000657	<0.00063	0.000930
	06/11/2019	<0.000373	<0.000335	<0.0006	<0.000575	<0.000335
	09/26/2019	**0.0105**	<0.000367	<0.000657	<0.000630	0.0105
	12/07/2019	0.000410	<0.000367	<0.000657	<0.000630	0.000410
	03/12/2020	0.00583	<0.000367	<0.000657	<0.000630	0.00583
	09/10/2020	0.00496	<0.000367	<0.000657	<0.000630	0.00496
	12/15/2020	0.000750 J	<0.002000	0.00166 J	0.00163 J	0.004040
MW-10	03/08/2016	**2.62**	<0.0119	0.222	<0.0122	-
	05/24/2016	**2.38**	<0.00238	0.127	0.0325	-
	09/08/2016	**3.16**	<0.0329	0.181	<0.0136	-
	12/05/2016	**3.35**	<0.0200	0.178	0.0420	-
	03/08/2017	**2.69**	0.0620 J	0.303	0.0790 J	3.13
	06/13/2017	0.00417	<0.00100	<0.000657	<0.000642	0.00417
	09/14/2017	**11.5 D**	<0.000367	**0.901 D**	0.0192	12.4
	12/18/2017	**12.1 D**	0.00857	**0.953 D**	0.0257	13.1
	03/26/2018	**5.04**	0.0270 J	0.518	<0.0315	5.59
	06/12/2018	**3.94**	<0.00512	0.422	<0.00270	4.36
	09/11/2018	**6.30 D**	0.000380 J	0.693 D	0.00625	7.00
	12/11/2018	**3.65**	<0.0256	0.420	<0.0135	4.07
	03/14/2019	**4.29**	<0.000367	0.142	<0.00063	4.43
	06/10/2019	**32**	<0.0367	**2.89**	**2.56**	38
	09/26/2019	**4.43**	<0.000367	0.307	<0.000630	4.74
	12/07/2019	**1.12**	<0.000367	0.0564	<0.000630	1.18
	03/11/2020	**3.03 D**	<0.000367	0.161	<0.000630	3.19
	06/11/2020	**2.33 DF**	0.00104 JF	0.0498 LF	0.00203	2.38

Table 2 - Groundwater Analytical Data - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-11	03/08/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	05/24/2016	<0.000223	<0.000238	<0.000238	<0.000243	-
	09/08/2016	<0.000504	<0.000621	<0.000763	<0.000256	-
	12/05/2016	<0.000408	<0.00100	<0.000657	<0.000642	-
	03/08/2017	0.000720 J	<0.000367	<0.000657	<0.000630	0.000720 J
	06/13/2017	0.00424	<0.00100	<0.000657	<0.000642	0.00424
	09/14/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/18/2017	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	03/26/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/12/2018	0.00270	<0.000512	<0.000616	<0.000270	0.00270
	09/11/2018	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	**0.0101**	<0.000367	0.00173	0.00146	0.0133
	06/10/2019	<0.000378	<0.00034	<0.000609	<0.000584	<0.00034
	09/26/2019	**0.0429**	<0.000367	0.00902	<0.000630	0.0519
	12/07/2019	0.000820	0.000440	<0.000657	<0.000630	0.00126
	03/12/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/08/2020	0.00575	<0.000367	0.00384	0.00263	0.0122
	12/15/2020	0.00153 J	<0.002000	0.00251	0.00254	0.006580
MW-12	03/08/2016	**1.88**	<0.0119	<0.0119	<0.0122	-
	05/24/2016	**0.634**	<0.0119	<0.0119	<0.0122	-
	09/08/2016	**0.162**	<0.0329	<0.0404	<0.0136	-
	12/05/2016	**0.0577**	<0.00100	<0.000657	<0.000642	-
	03/08/2017	**0.117**	<0.0184	<0.0329	<0.0315	0.117
	06/13/2017	0.00768	<0.00100	<0.000657	<0.000642	0.00768
	09/14/2017	0.00496	<0.000367	0.00168 J	<0.000630	0.00664
	12/18/2017	**0.0304**	<0.000367	0.00627	0.00146 J	0.0381
	03/26/2018	0.000570 J	0.00103 J	<0.000657	<0.000630	0.00160 J
	06/12/2018	0.00130	<0.000512	<0.000616	0.000700 J	0.00200
	09/11/2018	0.00136 J	<0.000367	<0.000657	<0.000630	0.00136 J
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	0.000950	<0.000367	<0.000657	<0.00063	0.000950
	06/10/2019	<0.00037	<0.000333	<0.000596	<0.000571	<0.000333
	09/26/2019	0.00564	<0.000367	<0.000657	<0.000630	0.00564
	12/07/2019	0.000680	<0.000367	<0.000657	0.000640	0.00132
	03/12/2020	0.00719	0.000750 J	0.00121 J	<0.000630	0.00915
	06/11/2020	0.00101 JF	<0.000367 F	<0.000657 LF	<0.000630	0.00101 J
	09/10/2020	0.00874	0.000510 J	0.00161 J	0.00117 J	0.0120
	12/15/2020	0.00213	<0.002000	0.00236	0.00217	0.006660
MW-15	09/11/2018	0.00374	0.00324	0.0468	0.0637	0.117
	12/12/2018	0.00280	<0.000512	0.0474	0.0510	0.101
	03/15/2019	0.00886	<0.000367	0.0254	0.0257	0.0599
	06/10/2019	**0.0122**	<0.000336	0.0954	0.0691	0.177
	09/26/2019	<0.000408	<0.000367	0.0251	0.0161	0.0412
	12/07/2019	0.00162	<0.000367	0.0624	0.0369	0.101
	03/12/2020	<0.000408	<0.000367	0.0265	<0.000630	0.0265
	06/11/2020	0.00205 F	<0.000367 F	0.0235 LF	0.0140	0.0396
	09/11/2020	0.000940 J	<0.000367	0.00715	0.00268	0.0108
	12/15/2020	0.000810 J	<0.002000	0.00257	0.00121 J	0.004590
MW-16	09/11/2018	**0.0101**	0.00839	0.0242	0.0314	0.0741
	12/12/2018	0.00230	0.00120	0.00890	0.0150	0.0274
	03/15/2019	0.00408	0.00222	0.00551	0.0114	0.0232
	06/10/2019	<0.000377	<0.000339	<0.000607	<0.000582	<0.000339
	09/26/2019	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	12/07/2019	0.000470	<0.000367	0.00598	0.00577	0.0122
	03/12/2020	<0.000408	<0.000367	<0.000657	<0.000630	<0.000367
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/11/2020	0.00140 J	0.000380 J	0.00354	0.00299	0.00831
	12/15/2020	0.000590 J	<0.002000	0.00185 J	0.00176 J	0.004200

Table 2 - Groundwater Analytical Data - Historical
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

Sample ID	Date Sampled	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)
MW-18	03/08/2016	**0.267**	<0.000238	0.000900 J	0.000500 J	-
	05/24/2016	**0.0108**	<0.000238	0.000800 J	0.000800 J	-
	09/08/2016	**0.0715**	<0.000621	0.00530	0.00610	-
	12/05/2016	**0.264**	<0.00100	<0.000657	<0.000642	-
	03/08/2017	**0.513**	<0.0184	<0.0329	<0.0315	0.513
	06/13/2017	**5.45**	<0.0250	<0.0164	<0.0161	5.45
	09/14/2017	**0.582 D**	<0.000367	0.00167 J	0.00118 J	0.585
	12/18/2017	**6.82 D**	<0.000367	0.00507	0.0241	6.85
	03/26/2018	**3.50**	0.00760 J	<0.0131	0.0132 J	3.52
	06/12/2018	**3.09**	<0.0256	<0.0308	<0.0135	3.09
	09/11/2018	**0.0801**	<0.000367	<0.000657	0.00463	0.0847
	12/11/2018	**0.0310**	<0.000512	<0.000616	<0.000270	0.0310
	03/14/2019	<0.000408	<0.000367	<0.000657	<0.00063	<0.000367
	06/10/2019	<0.00038	<0.000342	<0.000612	<0.000586	<0.000342
	09/25/2019	**0.395**	0.0145	0.00727	<0.000630	0.417
	12/07/2019	**0.122**	0.00273	0.00199	0.0109	0.138
	03/11/2020	**0.217**	0.0239	0.0105	0.00489	0.256
	06/11/2020	**0.241 F**	0.0138 F	0.00619 LF	0.0366	0.298
	09/08/2020	**0.135**	0.0242	0.0119	0.0517	0.223
	12/14/2020	**0.0479**	0.0196	0.00646	0.00537	0.07933
MW-19	09/11/2018	**2.41 D**	<0.000367	<0.000657	<0.000630	2.41
	12/11/2018	**6.07**	<0.0102	<0.0123	<0.00540	6.07
	03/14/2019	**2.11**	<0.000367	<0.000657	<0.00063	2.11
	06/10/2019	**0.302**	<0.000367	<0.000657	<0.00063	0.302
	09/25/2019	**3.99**	<0.000367	0.00585	<0.000630	4.00
	12/07/2019	0.00180	0.000720	0.00206	0.00447	0.00905
	03/11/2020	**3.96 D**	0.00557	0.00777	0.00131 J	3.97
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/08/2020	**1.21**	<0.00184	<0.00329	<0.00315	1.21
	12/14/2020	**0.336 X**	0.00208	0.00131 J	0.00116 J	0.3406
MW-20	09/11/2018	0.00373	<0.000367	<0.000657	<0.000630	0.00373
	12/11/2018	<0.000480	<0.000512	<0.000616	<0.000270	<0.000270
	03/14/2019	0.00741	<0.000367	<0.000657	<0.00063	0.00741
	06/10/2019	**0.0373**	<0.000367	<0.000657	<0.00063	0.0373
	09/25/2019	**0.0606**	<0.000367	<0.000657	<0.000630	0.0606
	12/07/2019	**2.24**	0.00218	0.00376	0.00340	2.25
	03/11/2020	**0.0227**	<0.000367	<0.000657	<0.000630	0.0227
	06/11/2020	<0.000408 F	<0.000367 F	<0.000657 LF	<0.000630	<0.000367
	09/08/2020	<0.000408 XF	<0.000367 XF	<0.000657 XF	<0.000630	<0.000367
	12/14/2020	0.00320	<0.002000	<0.002000	<0.002000	0.003200

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
Lovington Deep 6 inch
Hobbs, NM
SRS#: 2002-10312

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-4	03/26/2018	<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	0.000136 J	<0.000109	<0.000109
	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	0.000122	<0.0000055	<0.0000092
	03/11/2020	<0.000103	<0.0000871	<0.0000896	<0.000139	<0.0000590	<0.0000735	<0.000117	<0.000120	<0.000161	<0.0000786	-	<0.000163	<0.000104	<0.0000945	<0.000101	<0.0000880	<0.000135
MW-10	12/05/2016	0.000155	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000214	<0.0000250	0.000465	<0.0000250	<0.0000250	0.000296	<0.0000250
	03/26/2018	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	0.000985	<0.000110	0.00167	<0.000110	0.000329 J	0.00129	<0.000110
	03/14/2019	<0.0000040	<0.0000072	<0.0000075	<0.0000063	<0.0000095	<0.0000090	<0.0000079	<0.0000077	<0.0000087	<0.0000049	0.000142	<0.0000089	0.000255	<0.0000049	0.0000739	0.0000810	<0.0000091
	03/11/2020	0.000555	<0.000104	<0.000107	<0.000166	<0.0000706	<0.0000879	<0.000140	<0.000144	<0.000193	<0.000094	-	<0.000194	0.00216	<0.000113	0.000301 J	0.00210	<0.000161
MW-12	12/05/2016	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	<0.0000250	0.000110	<0.0000250	0.000505	<0.0000250	<0.0000250	0.000122	0.0000626
	03/26/2018	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	<0.000108	0.000241	<0.000108	0.000473	<0.000108	0.000247 J	<0.000108	<0.000108
	03/14/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	0.000157	<0.0000090	0.000322	<0.0000049	<0.0000045	<0.0000055	<0.0000092
	03/12/2020	<0.000111	<0.0000931	<0.0000958	<0.000149	<0.0000631	<0.0000786	<0.000125	<0.000128	<0.000173	<0.0000840	-	<0.000174	0.000400	<0.000101	<0.000108	<0.0000940	<0.000144
MW-18	03/08/2016	<0.0000329	<0.0000575	<0.0000318	<0.0000714	<0.0000414	<0.0000703	<0.0000514	<0.0000555	<0.0000803	<0.0000556	<0.0000601	<0.0000632	<0.0000780	<0.0000532	<0.0000649	<0.0000511	<0.0000411
	03/26/2018	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110	0.000829	<0.000110	<0.000110	<0.000110	0.000447	0.000388	<0.000110
	03/14/2019	<0.0000041	<0.0000073	<0.0000076	<0.0000063	<0.0000095	<0.0000091	<0.0000080	<0.0000078	<0.0000088	<0.0000049	0.0000305	<0.0000090	0.0000255	<0.0000049	0.0000325	<0.0000055	<0.0000092
	03/11/2020	<0.000109	<0.0000916	<0.0000943	<0.000146	<0.0000621	<0.0000774	<0.000123	<0.000126	<0.000170	<0.0000827	-	<0.000171	0.000167 J	<0.0000994	<0.000106	0.000183 J	<0.000142
MW-19	03/14/2019	<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	<0.0000046	<0.0000056	<0.0000094
	03/11/2020	0.000168 J	<0.0000855	<0.0000880	<0.000137	<0.0000580	<0.0000722	<0.000115	<0.000118	<0.000159	<0.0000772	-	<0.000160	0.000900	<0.0000928	0.000213 J	0.00112	<0.000132
MW-20	03/14/2019	<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	0.0000398	<0.0000056	<0.0000093
	03/11/2020	<0.000107	<0.0000899	<0.0000925	<0.000144	<0.0000609	<0.0000759	<0.000121	<0.000124	<0.000167	<0.0000811	-	<0.000168	<0.000108	<0.0000975	<0.000104	<0.0000908	<0.000139

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 655578

for

Talon LPE-Artesia

Project Manager: David Adkins

Lovington Deep

300376.051.54

03.24.2020

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)

03.24.2020

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

Reference: XENCO Report No(s): **655578**
Lovington Deep
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) 655578. 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. 655578 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 655578

Talon LPE-Artesia, Artesia, NM

Lovington Deep

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-18	W	03.11.2020 12:35		655578-001
MW-19	W	03.11.2020 13:08		655578-002
MW-20	W	03.11.2020 13:40		655578-003
MW-4	W	03.11.2020 14:20		655578-004
MW-10	W	03.11.2020 15:05		655578-005
MW-12	W	03.12.2020 08:45		655578-006
MW-9	W	03.12.2020 09:10		655578-007
MW-5	W	03.12.2020 09:45		655578-008
MW-8	W	03.12.2020 10:10		655578-009
MW-1	W	03.12.2020 10:40		655578-010
MW-16	W	03.12.2020 11:25		655578-011
MW-15	W	03.12.2020 12:05		655578-012
MW-3	W	03.12.2020 13:35		655578-013
MW-11	W	03.12.2020 14:05		655578-014

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Lovington Deep

Project ID: *300376.051.54*
Work Order Number(s): *655578*

Report Date: *03.24.2020*
Date Received: *03.12.2020*

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120269 BTEX by EPA 8021

Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 655578-005,655578-002.

Batch: LBA-3120573 BTEX by EPA 8021

Surrogate 4-Bromofluorobenzene recovered below QC limits Data confirmed by re-analysis. Samples affected are: 7699499-1-BLK.

Certificate of Analytical Results
655578

Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-001 Date Collected: 03.11.2020 12:35 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:34

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000866	0.000198	0.0000866	mg/L	03.16.2020 19:00	U	1
2-Methylnaphthalene	91-57-6	<0.0000993	0.000198	0.0000993	mg/L	03.16.2020 19:00	U	1
Acenaphthene	83-32-9	<0.000109	0.000198	0.000109	mg/L	03.16.2020 19:00	U	1
Acenaphthylene	208-96-8	<0.0000916	0.000198	0.0000916	mg/L	03.16.2020 19:00	U	1
Anthracene	120-12-7	<0.0000943	0.000198	0.0000943	mg/L	03.16.2020 19:00	U	1
Benzo(a)anthracene	56-55-3	<0.000146	0.000198	0.000146	mg/L	03.16.2020 19:00	U	1
Benzo(a)pyrene	50-32-8	<0.0000621	0.000198	0.0000621	mg/L	03.16.2020 19:00	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000774	0.000198	0.0000774	mg/L	03.16.2020 19:00	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000123	0.000198	0.000123	mg/L	03.16.2020 19:00	U	1
Benzo(k)fluoranthene	207-08-9	<0.000126	0.000198	0.000126	mg/L	03.16.2020 19:00	U	1
Chrysene	218-01-9	<0.000170	0.000198	0.000170	mg/L	03.16.2020 19:00	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000827	0.000198	0.0000827	mg/L	03.16.2020 19:00	U	1
Fluoranthene	206-44-0	<0.000171	0.000198	0.000171	mg/L	03.16.2020 19:00	U	1
Fluorene	86-73-7	**0.000167**	0.000198	0.000110	mg/L	03.16.2020 19:00	J	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000994	0.000198	0.0000994	mg/L	03.16.2020 19:00	U	1
Naphthalene	91-20-3	<0.000106	0.000396	0.000106	mg/L	03.16.2020 19:00	U	1
Phenanthrene	85-01-8	**0.000183**	0.000198	0.0000926	mg/L	03.16.2020 19:00	J	1
Pyrene	129-00-0	<0.000142	0.000198	0.000142	mg/L	03.16.2020 19:00	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	93	54 - 146	%		
Nitrobenzene-d5	90	46 - 151	%		
Terphenyl-D14	101	51 - 139	%		

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

Sample Id:	**MW-18**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	655578-001	Date Collected:	03.11.2020 12:35	Date Received:	03.12.2020 16:15
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3120269	Date Prep:	03.18.2020 15:30		
Subcontractor:	SUB: T104704219-19-21	Prep seq:	7699300		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.217**	0.00200	0.000408	mg/L	03.19.2020 09:04		1
Toluene	108-88-3	**0.0239**	0.00200	0.000367	mg/L	03.19.2020 09:04		1
Ethylbenzene	100-41-4	**0.0105**	0.00200	0.000657	mg/L	03.19.2020 09:04		1
m_p-Xylenes	179601-23-1	**0.00282**	0.00400	0.000630	mg/L	03.19.2020 09:04	J	1
o-Xylene	95-47-6	**0.00207**	0.00200	0.000642	mg/L	03.19.2020 09:04		1
Xylenes, Total	1330-20-7	**0.00489**		0.000630	mg/L	03.19.2020 09:04		
Total BTEX		**0.256**		0.000367	mg/L	03.19.2020 09:04		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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

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

Lab Sample Id: 655578-002 Date Collected: 03.11.2020 13:08 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:37

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	**0.000139**	0.000185	0.0000808	mg/L	03.16.2020 19:17	J	1
2-Methylnaphthalene	91-57-6	<0.0000927	0.000185	0.0000927	mg/L	03.16.2020 19:17	U	1
Acenaphthene	83-32-9	**0.000168**	0.000185	0.000102	mg/L	03.16.2020 19:17	J	1
Acenaphthylene	208-96-8	<0.0000855	0.000185	0.0000855	mg/L	03.16.2020 19:17	U	1
Anthracene	120-12-7	<0.0000880	0.000185	0.0000880	mg/L	03.16.2020 19:17	U	1
Benzo(a)anthracene	56-55-3	<0.000137	0.000185	0.000137	mg/L	03.16.2020 19:17	U	1
Benzo(a)pyrene	50-32-8	<0.0000580	0.000185	0.0000580	mg/L	03.16.2020 19:17	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000722	0.000185	0.0000722	mg/L	03.16.2020 19:17	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000115	0.000185	0.000115	mg/L	03.16.2020 19:17	U	1
Benzo(k)fluoranthene	207-08-9	<0.000118	0.000185	0.000118	mg/L	03.16.2020 19:17	U	1
Chrysene	218-01-9	<0.000159	0.000185	0.000159	mg/L	03.16.2020 19:17	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000772	0.000185	0.0000772	mg/L	03.16.2020 19:17	U	1
Fluoranthene	206-44-0	<0.000160	0.000185	0.000160	mg/L	03.16.2020 19:17	U	1
Fluorene	86-73-7	**0.000900**	0.000185	0.000102	mg/L	03.16.2020 19:17		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000928	0.000185	0.0000928	mg/L	03.16.2020 19:17	U	1
Naphthalene	91-20-3	**0.000213**	0.000369	0.0000988	mg/L	03.16.2020 19:17	J	1
Phenanthrene	85-01-8	**0.00112**	0.000185	0.0000864	mg/L	03.16.2020 19:17		1
Pyrene	129-00-0	<0.000132	0.000185	0.000132	mg/L	03.16.2020 19:17	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	104	54 - 146	%		
Nitrobenzene-d5	99	46 - 151	%		
Terphenyl-D14	109	51 - 139	%		

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

Sample Id:	**MW-19**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	655578-002	Date Collected:	03.11.2020 13:08	Date Received:	03.12.2020 16:15
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3120269	Date Prep:	03.18.2020 15:30		
Subcontractor:	SUB: T104704219-19-21	Prep seq:	7699300		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**3.96**	0.200	0.0408	mg/L	03.20.2020 23:12	D	100
Toluene	108-88-3	**0.00557**	0.00200	0.000367	mg/L	03.19.2020 09:24		1
Ethylbenzene	100-41-4	**0.00777**	0.00200	0.000657	mg/L	03.19.2020 09:24		1
m_p-Xylenes	179601-23-1	**0.00131**	0.00400	0.000630	mg/L	03.19.2020 09:24	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 09:24	U	1
Xylenes, Total	1330-20-7	**0.00131**		0.000630	mg/L	03.19.2020 09:24	J	
Total BTEX		**3.97**		0.000367	mg/L	03.20.2020 23:12		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	171	70 - 130	%		**
4-Bromofluorobenzene	114	70 - 130	%		

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

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

Lab Sample Id: 655578-003 Date Collected: 03.11.2020 13:40 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:40

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000849	0.000194	0.0000849	mg/L	03.16.2020 19:34	U	1
2-Methylnaphthalene	91-57-6	<0.0000974	0.000194	0.0000974	mg/L	03.16.2020 19:34	U	1
Acenaphthene	83-32-9	<0.000107	0.000194	0.000107	mg/L	03.16.2020 19:34	U	1
Acenaphthylene	208-96-8	<0.0000899	0.000194	0.0000899	mg/L	03.16.2020 19:34	U	1
Anthracene	120-12-7	<0.0000925	0.000194	0.0000925	mg/L	03.16.2020 19:34	U	1
Benzo(a)anthracene	56-55-3	<0.000144	0.000194	0.000144	mg/L	03.16.2020 19:34	U	1
Benzo(a)pyrene	50-32-8	<0.0000609	0.000194	0.0000609	mg/L	03.16.2020 19:34	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000759	0.000194	0.0000759	mg/L	03.16.2020 19:34	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000121	0.000194	0.000121	mg/L	03.16.2020 19:34	U	1
Benzo(k)fluoranthene	207-08-9	<0.000124	0.000194	0.000124	mg/L	03.16.2020 19:34	U	1
Chrysene	218-01-9	<0.000167	0.000194	0.000167	mg/L	03.16.2020 19:34	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000811	0.000194	0.0000811	mg/L	03.16.2020 19:34	U	1
Fluoranthene	206-44-0	<0.000168	0.000194	0.000168	mg/L	03.16.2020 19:34	U	1
Fluorene	86-73-7	<0.000108	0.000194	0.000108	mg/L	03.16.2020 19:34	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000975	0.000194	0.0000975	mg/L	03.16.2020 19:34	U	1
Naphthalene	91-20-3	<0.000104	0.000388	0.000104	mg/L	03.16.2020 19:34	U	1
Phenanthrene	85-01-8	<0.0000908	0.000194	0.0000908	mg/L	03.16.2020 19:34	U	1
Pyrene	129-00-0	<0.000139	0.000194	0.000139	mg/L	03.16.2020 19:34	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	87	54 - 146	%		
Nitrobenzene-d5	86	46 - 151	%		
Terphenyl-D14	100	51 - 139	%		

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

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

Lab Sample Id: 655578-003 Date Collected: 03.11.2020 13:40 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120573 Date Prep: 03.20.2020 14:00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0227**	0.00200	0.000408	mg/L	03.20.2020 20:31		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.20.2020 20:31	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.20.2020 20:31	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.20.2020 20:31	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.20.2020 20:31	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.20.2020 20:31	U	
Total BTEX		**0.0227**		0.000367	mg/L	03.20.2020 20:31		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	113	70 - 130	%		
4-Bromofluorobenzene	71	70 - 130	%		

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

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

Lab Sample Id: 655578-004 Date Collected: 03.11.2020 14:20 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:43

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000823	0.000188	0.0000823	mg/L	03.16.2020 19:52	U	1
2-Methylnaphthalene	91-57-6	<0.0000944	0.000188	0.0000944	mg/L	03.16.2020 19:52	U	1
Acenaphthene	83-32-9	<0.000103	0.000188	0.000103	mg/L	03.16.2020 19:52	U	1
Acenaphthylene	208-96-8	<0.0000871	0.000188	0.0000871	mg/L	03.16.2020 19:52	U	1
Anthracene	120-12-7	<0.0000896	0.000188	0.0000896	mg/L	03.16.2020 19:52	U	1
Benzo(a)anthracene	56-55-3	<0.000139	0.000188	0.000139	mg/L	03.16.2020 19:52	U	1
Benzo(a)pyrene	50-32-8	<0.0000590	0.000188	0.0000590	mg/L	03.16.2020 19:52	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000735	0.000188	0.0000735	mg/L	03.16.2020 19:52	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000117	0.000188	0.000117	mg/L	03.16.2020 19:52	U	1
Benzo(k)fluoranthene	207-08-9	<0.000120	0.000188	0.000120	mg/L	03.16.2020 19:52	U	1
Chrysene	218-01-9	<0.000161	0.000188	0.000161	mg/L	03.16.2020 19:52	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000786	0.000188	0.0000786	mg/L	03.16.2020 19:52	U	1
Fluoranthene	206-44-0	<0.000163	0.000188	0.000163	mg/L	03.16.2020 19:52	U	1
Fluorene	86-73-7	<0.000104	0.000188	0.000104	mg/L	03.16.2020 19:52	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000945	0.000188	0.0000945	mg/L	03.16.2020 19:52	U	1
Naphthalene	91-20-3	<0.000101	0.000376	0.000101	mg/L	03.16.2020 19:52	U	1
Phenanthrene	85-01-8	<0.0000880	0.000188	0.0000880	mg/L	03.16.2020 19:52	U	1
Pyrene	129-00-0	<0.000135	0.000188	0.000135	mg/L	03.16.2020 19:52	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	97	54 - 146	%		
Nitrobenzene-d5	94	46 - 151	%		
Terphenyl-D14	100	51 - 139	%		

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

Sample Id:	**MW-4**	Matrix:	Ground Water	Sample Depth:	
Lab Sample Id:	655578-004	Date Collected:	03.11.2020 14:20	Date Received:	03.12.2020 16:15
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:		Tech:	KTL
Seq Number:	3120269	Date Prep:	03.18.2020 15:30		
Subcontractor:	SUB: T104704219-19-21	Prep seq:	7699300		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0123**	0.00200	0.000408	mg/L	03.19.2020 10:05		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 10:05	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 10:05	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 10:05	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 10:05	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 10:05	U	
Total BTEX		**0.0123**		0.000367	mg/L	03.19.2020 10:05		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	101	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-005 Date Collected: 03.11.2020 15:05 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:46

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	**0.000294**	0.000225	0.0000984	mg/L	03.16.2020 20:09		1
2-Methylnaphthalene	91-57-6	<0.000113	0.000225	0.000113	mg/L	03.16.2020 20:09	U	1
Acenaphthene	83-32-9	**0.000555**	0.000225	0.000124	mg/L	03.16.2020 20:09		1
Acenaphthylene	208-96-8	<0.000104	0.000225	0.000104	mg/L	03.16.2020 20:09	U	1
Anthracene	120-12-7	<0.000107	0.000225	0.000107	mg/L	03.16.2020 20:09	U	1
Benzo(a)anthracene	56-55-3	<0.000166	0.000225	0.000166	mg/L	03.16.2020 20:09	U	1
Benzo(a)pyrene	50-32-8	<0.0000706	0.000225	0.0000706	mg/L	03.16.2020 20:09	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000879	0.000225	0.0000879	mg/L	03.16.2020 20:09	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000140	0.000225	0.000140	mg/L	03.16.2020 20:09	U	1
Benzo(k)fluoranthene	207-08-9	<0.000144	0.000225	0.000144	mg/L	03.16.2020 20:09	U	1
Chrysene	218-01-9	<0.000193	0.000225	0.000193	mg/L	03.16.2020 20:09	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000940	0.000225	0.0000940	mg/L	03.16.2020 20:09	U	1
Fluoranthene	206-44-0	<0.000194	0.000225	0.000194	mg/L	03.16.2020 20:09	U	1
Fluorene	86-73-7	**0.00216**	0.000225	0.000125	mg/L	03.16.2020 20:09		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.000113	0.000225	0.000113	mg/L	03.16.2020 20:09	U	1
Naphthalene	91-20-3	**0.000301**	0.000450	0.000120	mg/L	03.16.2020 20:09	J	1
Phenanthrene	85-01-8	**0.00210**	0.000225	0.000105	mg/L	03.16.2020 20:09		1
Pyrene	129-00-0	<0.000161	0.000225	0.000161	mg/L	03.16.2020 20:09	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	93	54 - 146	%		
Nitrobenzene-d5	92	46 - 151	%		
Terphenyl-D14	98	51 - 139	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-005 Date Collected: 03.11.2020 15:05 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**3.03**	0.200	0.0408	mg/L	03.20.2020 23:33	D	100
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 11:26	U	1
Ethylbenzene	100-41-4	**0.161**	0.00200	0.000657	mg/L	03.19.2020 11:26		1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 11:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 11:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 11:26	U	
Total BTEX		**3.19**		0.000367	mg/L	03.20.2020 23:33		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	144	70 - 130	%		**
4-Bromofluorobenzene	107	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-006 Date Collected: 03.12.2020 08:45 Date Received: 03.12.2020 16:15

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:49

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000880	0.000201	0.0000880	mg/L	03.16.2020 20:27	U	1
2-Methylnaphthalene	91-57-6	<0.000101	0.000201	0.000101	mg/L	03.16.2020 20:27	U	1
Acenaphthene	83-32-9	<0.000111	0.000201	0.000111	mg/L	03.16.2020 20:27	U	1
Acenaphthylene	208-96-8	<0.0000931	0.000201	0.0000931	mg/L	03.16.2020 20:27	U	1
Anthracene	120-12-7	<0.0000958	0.000201	0.0000958	mg/L	03.16.2020 20:27	U	1
Benzo(a)anthracene	56-55-3	<0.000149	0.000201	0.000149	mg/L	03.16.2020 20:27	U	1
Benzo(a)pyrene	50-32-8	<0.0000631	0.000201	0.0000631	mg/L	03.16.2020 20:27	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000786	0.000201	0.0000786	mg/L	03.16.2020 20:27	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000125	0.000201	0.000125	mg/L	03.16.2020 20:27	U	1
Benzo(k)fluoranthene	207-08-9	<0.000128	0.000201	0.000128	mg/L	03.16.2020 20:27	U	1
Chrysene	218-01-9	<0.000173	0.000201	0.000173	mg/L	03.16.2020 20:27	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000840	0.000201	0.0000840	mg/L	03.16.2020 20:27	U	1
Fluoranthene	206-44-0	<0.000174	0.000201	0.000174	mg/L	03.16.2020 20:27	U	1
Fluorene	86-73-7	**0.000400**	0.000201	0.000111	mg/L	03.16.2020 20:27		1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.000101	0.000201	0.000101	mg/L	03.16.2020 20:27	U	1
Naphthalene	91-20-3	<0.000108	0.000402	0.000108	mg/L	03.16.2020 20:27	U	1
Phenanthrene	85-01-8	<0.0000940	0.000201	0.0000940	mg/L	03.16.2020 20:27	U	1
Pyrene	129-00-0	<0.000144	0.000201	0.000144	mg/L	03.16.2020 20:27	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	98	54 - 146	%		
Nitrobenzene-d5	93	46 - 151	%		
Terphenyl-D14	110	51 - 139	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-006 Date Collected: 03.12.2020 08:45 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120573 Date Prep: 03.20.2020 14:00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00719**	0.00200	0.000408	mg/L	03.20.2020 20:51		1
Toluene	108-88-3	**0.000750**	0.00200	0.000367	mg/L	03.20.2020 20:51	J	1
Ethylbenzene	100-41-4	**0.00121**	0.00200	0.000657	mg/L	03.20.2020 20:51	J	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.20.2020 20:51	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.20.2020 20:51	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.20.2020 20:51	U	
Total BTEX		**0.00915**		0.000367	mg/L	03.20.2020 20:51		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	117	70 - 130	%		
4-Bromofluorobenzene	79	70 - 130	%		

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

Lab Sample Id: 655578-007 Date Collected: 03.12.2020 09:10 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00583**	0.00200	0.000408	mg/L	03.19.2020 12:26		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 12:26	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 12:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 12:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 12:26	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 12:26	U	
Total BTEX		**0.00583**		0.000367	mg/L	03.19.2020 12:26		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-008 Date Collected: 03.12.2020 09:45 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00405**	0.00200	0.000408	mg/L	03.19.2020 12:46		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 12:46	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 12:46	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 12:46	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 12:46	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 12:46	U	
Total BTEX		**0.00405**		0.000367	mg/L	03.19.2020 12:46		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		

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

Lab Sample Id: 655578-009 Date Collected: 03.12.2020 10:10 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00465**	0.00200	0.000408	mg/L	03.19.2020 13:07		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 13:07	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 13:07	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 13:07	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 13:07	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 13:07	U	
Total BTEX		**0.00465**		0.000367	mg/L	03.19.2020 13:07		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	106	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-010 Date Collected: 03.12.2020 10:40 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 13:27	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 13:27	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 13:27	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 13:27	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 13:27	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 13:27	U	
Total BTEX		<0.000367		0.000367	mg/L	03.19.2020 13:27	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	98	70 - 130	%		
4-Bromofluorobenzene	104	70 - 130	%		

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

Lab Sample Id: 655578-011 Date Collected: 03.12.2020 11:25 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 13:47	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 13:47	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 13:47	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 13:47	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 13:47	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 13:47	U	
Total BTEX		<0.000367		0.000367	mg/L	03.19.2020 13:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-012 Date Collected: 03.12.2020 12:05 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 14:08	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 14:08	U	1
Ethylbenzene	100-41-4	**0.0265**	0.00200	0.000657	mg/L	03.19.2020 14:08		1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 14:08	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 14:08	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 14:08	U	
Total BTEX		**0.0265**		0.000367	mg/L	03.19.2020 14:08		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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

Lab Sample Id: 655578-013 Date Collected: 03.12.2020 13:35 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 14:28	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 14:28	U	1
Ethylbenzene	100-41-4	**0.0560**	0.00200	0.000657	mg/L	03.19.2020 14:28		1
m_p-Xylenes	179601-23-1	**0.0385**	0.00400	0.000630	mg/L	03.19.2020 14:28		1
o-Xylene	95-47-6	**0.00691**	0.00200	0.000642	mg/L	03.19.2020 14:28		1
Xylenes, Total	1330-20-7	**0.0454**		0.000630	mg/L	03.19.2020 14:28		
Total BTEX		**0.101**		0.000367	mg/L	03.19.2020 14:28		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 655578-014 Date Collected: 03.12.2020 14:05 Date Received: 03.12.2020 16:15

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 14:48	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 14:48	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 14:48	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 14:48	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 14:48	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	03.19.2020 14:48	U	
Total BTEX		<0.000367		0.000367	mg/L	03.19.2020 14:48	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep

Sample Id: **7698980-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7698980-1-BLK Date Collected: Date Received:

Analytical Method: PAHs by SW846 8270D SIM Prep Method: SW3511

Analyst: DNE % Moist: Tech: DNE

Seq Number: 3119907 Date Prep: 03.16.2020 15:25

Subcontractor: SUB: T104704215-19-30 Prep seq: 7698980

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
1-Methylnaphthalene	90-12-0	<0.0000795	0.000182	0.0000795	mg/L	03.16.2020 16:33	U	1
2-Methylnaphthalene	91-57-6	<0.0000913	0.000182	0.0000913	mg/L	03.16.2020 16:33	U	1
Acenaphthene	83-32-9	<0.000100	0.000182	0.0001000	mg/L	03.16.2020 16:33	U	1
Acenaphthylene	208-96-8	<0.0000842	0.000182	0.0000842	mg/L	03.16.2020 16:33	U	1
Anthracene	120-12-7	<0.0000866	0.000182	0.0000866	mg/L	03.16.2020 16:33	U	1
Benzo(a)anthracene	56-55-3	<0.000134	0.000182	0.000134	mg/L	03.16.2020 16:33	U	1
Benzo(a)pyrene	50-32-8	<0.0000571	0.000182	0.0000571	mg/L	03.16.2020 16:33	U	1
Benzo(b)fluoranthene	205-99-2	<0.0000711	0.000182	0.0000711	mg/L	03.16.2020 16:33	U	1
Benzo(g,h,i)perylene	191-24-2	<0.000113	0.000182	0.000113	mg/L	03.16.2020 16:33	U	1
Benzo(k)fluoranthene	207-08-9	<0.000116	0.000182	0.000116	mg/L	03.16.2020 16:33	U	1
Chrysene	218-01-9	<0.000156	0.000182	0.000156	mg/L	03.16.2020 16:33	U	1
Dibenz(a,h)anthracene	53-70-3	<0.0000760	0.000182	0.0000760	mg/L	03.16.2020 16:33	U	1
Fluoranthene	206-44-0	<0.000157	0.000182	0.000157	mg/L	03.16.2020 16:33	U	1
Fluorene	86-73-7	<0.000101	0.000182	0.000101	mg/L	03.16.2020 16:33	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	<0.0000913	0.000182	0.0000913	mg/L	03.16.2020 16:33	U	1
Naphthalene	91-20-3	<0.0000972	0.000364	0.0000972	mg/L	03.16.2020 16:33	U	1
Phenanthrene	85-01-8	<0.0000850	0.000182	0.0000850	mg/L	03.16.2020 16:33	U	1
Pyrene	129-00-0	<0.000130	0.000182	0.000130	mg/L	03.16.2020 16:33	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
2-Fluorobiphenyl	95	54 - 146	%		
Nitrobenzene-d5	91	46 - 151	%		
Terphenyl-D14	102	51 - 139	%		

Certificate of Analytical Results
655578
Talon LPE-Artesia, Artesia, NM
Lovington Deep

Sample Id: **7699300-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7699300-1-BLK Date Collected: Date Received:

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120269 Date Prep: 03.18.2020 15:30

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699300

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.19.2020 06:41	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.19.2020 06:41	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.19.2020 06:41	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.19.2020 06:41	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.19.2020 06:41	U	1

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

Sample Id: **7699499-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7699499-1-BLK Date Collected: Date Received:

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

Analyst: KTL % Moist: Tech: KTL

Seq Number: 3120573 Date Prep: 03.20.2020 14:00

Subcontractor: SUB: T104704219-19-21 Prep seq: 7699499

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	03.20.2020 20:11	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	03.20.2020 20:11	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	03.20.2020 20:11	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	03.20.2020 20:11	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	03.20.2020 20:11	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	68	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. **ND** Not Detected.

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: Lovington Deep

Work Orders : 655578 **Project ID:** 300376.051.54

Lab Batch #: 3120269 **Sample:** 7699300-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.19.2020 04:40 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

Lab Batch #: 3120269 **Sample:** 7699300-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.19.2020 05:00 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3120269 **Sample:** 655662-002 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.19.2020 05:20 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3120269 **Sample:** 655662-002 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.19.2020 05:41 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	70-130	
4-Bromofluorobenzene	0.0299	0.0300	100	70-130	

Lab Batch #: 3120269 **Sample:** 7699300-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.19.2020 06:41 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0291	0.0300	97	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: Lovington Deep

Work Orders : 655578 **Project ID:** 300376.051.54

Lab Batch #: 3120573 **Sample:** 7699499-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.20.2020 18:12 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0352	0.0300	117	70-130	
4-Bromofluorobenzene	0.0289	0.0300	96	70-130	

Lab Batch #: 3120573 **Sample:** 7699499-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.20.2020 18:32 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	70-130	
4-Bromofluorobenzene	0.0276	0.0300	92	70-130	

Lab Batch #: 3120573 **Sample:** 655578-003 S / MS **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.20.2020 18:52 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	70-130	
4-Bromofluorobenzene	0.0261	0.0300	87	70-130	

Lab Batch #: 3120573 **Sample:** 655578-003 SD / MSD **Batch:** 1 **Matrix:** Ground Water

Units: mg/L **Date Analyzed:** 03.20.2020 19:12 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3120573 **Sample:** 7699499-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.20.2020 20:11 **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	0.0203	0.0300	68	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: Lovington Deep

Work Orders : 655578 **Project ID:** 300376.051.54

Lab Batch #: 3119907 **Sample:** 7698980-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.16.2020 16:33 **SURROGATE RECOVERY STUDY**

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.474	0.500	95	54-146	
Nitrobenzene-d5	0.455	0.500	91	46-151	
Terphenyl-D14	0.512	0.500	102	51-139	

Lab Batch #: 3119907 **Sample:** 7698980-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.16.2020 16:50 **SURROGATE RECOVERY STUDY**

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.461	0.500	92	54-146	
Nitrobenzene-d5	0.440	0.500	88	46-151	
Terphenyl-D14	0.506	0.500	101	51-139	

Lab Batch #: 3119907 **Sample:** 7698980-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 03.16.2020 17:07 **SURROGATE RECOVERY STUDY**

PAHs by SW846 8270D SIM Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
2-Fluorobiphenyl	0.482	0.500	96	54-146	
Nitrobenzene-d5	0.457	0.500	91	46-151	
Terphenyl-D14	0.501	0.500	100	51-139	

* 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: Lovington Deep

Work Order #: 655578 **Project ID:** 300376.051.54

Analyst: KTL **Date Prepared:** 03.18.2020 **Date Analyzed:** 03.19.2020

Lab Batch ID: 3120269 **Sample:** 7699300-1-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	0.0931	93	0.100	0.0894	89	4	70-130	25	
Toluene	<0.000367	0.100	0.0924	92	0.100	0.0883	88	5	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0921	92	0.100	0.0879	88	5	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.183	92	0.200	0.174	87	5	70-130	25	
o-Xylene	<0.000642	0.100	0.0940	94	0.100	0.0896	90	5	70-130	25	

Analyst: KTL **Date Prepared:** 03.20.2020 **Date Analyzed:** 03.20.2020

Lab Batch ID: 3120573 **Sample:** 7699499-1-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	0.102	102	0.100	0.0970	97	5	70-130	25	
Toluene	<0.000367	0.100	0.106	106	0.100	0.100	100	6	70-130	25	
Ethylbenzene	<0.000657	0.100	0.103	103	0.100	0.0979	98	5	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.204	102	0.200	0.193	97	6	70-130	25	
o-Xylene	<0.000642	0.100	0.104	104	0.100	0.0995	100	4	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: Lovington Deep

Work Order #: 655578 **Project ID:** 300376.051.54

Analyst: DNE **Date Prepared:** 03.16.2020 **Date Analyzed:** 03.16.2020

Lab Batch ID: 3119907 **Sample:** 7698980-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

PAHs by SW846 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
1-Methylnaphthalene	<0.0000795	0.0182	0.0172	95	0.0182	0.0178	98	3	70-126	30	
2-Methylnaphthalene	<0.0000913	0.0182	0.0178	98	0.0182	0.0183	101	3	74-121	30	
Acenaphthene	<0.000100	0.0182	0.0166	91	0.0182	0.0173	95	4	75-127	30	
Acenaphthylene	<0.0000842	0.0182	0.0163	90	0.0182	0.0167	92	2	78-133	30	
Anthracene	<0.0000866	0.0182	0.0161	88	0.0182	0.0170	93	5	73-145	30	
Benzo(a)anthracene	<0.000134	0.0182	0.0160	88	0.0182	0.0165	91	3	77-131	30	
Benzo(a)pyrene	<0.0000571	0.0182	0.0173	95	0.0182	0.0172	95	1	56-163	30	
Benzo(b)fluoranthene	<0.0000711	0.0182	0.0151	83	0.0182	0.0148	81	2	74-138	30	
Benzo(g,h,i)perylene	<0.000113	0.0182	0.0146	80	0.0182	0.0143	79	2	77-127	30	
Benzo(k)fluoranthene	<0.000116	0.0182	0.0175	96	0.0182	0.0177	97	1	67-142	30	
Chrysene	<0.000156	0.0182	0.0179	98	0.0182	0.0177	97	1	66-126	30	
Dibenz(a,h)anthracene	<0.0000760	0.0182	0.0152	84	0.0182	0.0147	81	3	71-142	30	
Fluoranthene	<0.000157	0.0182	0.0164	90	0.0182	0.0173	95	5	78-138	30	
Fluorene	<0.000101	0.0182	0.0170	93	0.0182	0.0177	97	4	79-128	30	
Indeno(1,2,3-c,d)Pyrene	<0.0000913	0.0182	0.0149	82	0.0182	0.0145	80	3	76-140	30	
Naphthalene	<0.0000972	0.0182	0.0167	92	0.0182	0.0172	95	3	72-122	30	
Phenanthrene	<0.0000850	0.0182	0.0166	91	0.0182	0.0174	96	5	76-129	30	
Pyrene	<0.000130	0.0182	0.0179	98	0.0182	0.0186	102	4	74-138	30	

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: Lovington Deep

Work Order # : 655578 **Project ID:** 300376.051.54

Lab Batch ID: 3120269 **QC- Sample ID:** 655662-002 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 03.19.2020 **Date Prepared:** 03.18.2020 **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	0.0903	90	0.100	0.0917	92	2	70-130	25	
Toluene	<0.000367	0.100	0.0903	90	0.100	0.0916	92	1	70-130	25	
Ethylbenzene	0.000740	0.100	0.0907	90	0.100	0.0913	91	1	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.181	91	0.200	0.181	91	0	70-130	25	
o-Xylene	<0.000642	0.100	0.0926	93	0.100	0.0932	93	1	70-130	25	

Lab Batch ID: 3120573 **QC- Sample ID:** 655578-003 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 03.20.2020 **Date Prepared:** 03.20.2020 **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	0.0227	0.100	0.116	93	0.100	0.115	92	1	70-130	25	
Toluene	<0.000367	0.100	0.0978	98	0.100	0.0970	97	1	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0967	97	0.100	0.0949	95	2	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.190	95	0.200	0.187	94	2	70-130	25	
o-Xylene	<0.000642	0.100	0.0963	96	0.100	0.0955	96	1	70-130	25	

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

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

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 655578

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

Project Name:	COVINGTON DEEP	Turn Around	
Project Number:	700376.051.54	Routine	☒
P.O. Number:	2002-10312	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.8	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	(Yes) No N/A	Total Containers:	~~36~~ 48	

Sample Identification	Matrix	Date Sampled	Time Sampled	cc 3/17/20 Depth	Number of Containers	BTEX	PAH
MW-18	GW	3-11-2020	12:35pm	N/A	~~5~~	✓	✓
MW-19			1:08pm				
MW-20			1:40pm				
MW-4			2:20pm				
MW-10		3-11-2020	3:05pm				
MW-12		3-12-2020	8:45am		5 ~~2~~	✓	✓
MW-9			9:10am		3	✓	
MW-5			9:45am				
MW-8			10:10am				
MW-1	GW	3-12-2020	10:40am	N/A	3	✓	

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

BTEX also needed, per D. Atkins 3/17/20

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
		3/12/20 16:15	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 1055578

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

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

Work Order Comments

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

Project Name:	LOVINGTON DEEP	Turn Around	
Project Number:	700376.051.54	Routine	☒
P.O. Number:	2002 - 10312	Rush:	
Sampler's Name:	MICHAEL COLLIER	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	BTEX	PAH	Sample Comments
MW-16	GW	3-12-2020	11:25am	N/A	3	✓		EMAIL ANALYTICALS
MW-15	"	"	12:05pm	"	"	"		TO
MW-3	"	"	1:35pm	"	"	"		CAMILLE BRYANT
MW-11	GW	3-12-2020	2:05pm	N/A	3	✓		

ANALYSIS REQUEST

Work Order Notes

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Michael Collier		3/12/20 16:15	2		
3				4		
5				6		

Inter-Office Shipment

IOS Number **60209**

Date/Time: 03/13/20 10:40
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 770018946335

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
655578-001	W	MW-18	03/11/20 12:35	SW8021B	BTEX by EPA 8021	03/18/20	03/25/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-002	W	MW-19	03/11/20 13:08	SW8021B	BTEX by EPA 8021	03/18/20	03/25/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-003	W	MW-20	03/11/20 13:40	SW8021B	BTEX by EPA 8021	03/18/20	03/25/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-004	W	MW-4	03/11/20 14:20	SW8021B	BTEX by EPA 8021	03/18/20	03/25/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-005	W	MW-10	03/11/20 15:05	SW8021B	BTEX by EPA 8021	03/18/20	03/25/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-006	W	MW-12	03/12/20 08:45	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-007	W	MW-9	03/12/20 09:10	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-008	W	MW-5	03/12/20 09:45	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-009	W	MW-8	03/12/20 10:10	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-010	W	MW-1	03/12/20 10:40	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-011	W	MW-16	03/12/20 11:25	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-012	W	MW-15	03/12/20 12:05	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-013	W	MW-3	03/12/20 13:35	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	
655578-014	W	MW-11	03/12/20 14:05	SW8021B	BTEX by EPA 8021	03/18/20	03/26/20	JKR	BR4FBZ BZ BZME EBZ T	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 03/13/2020

Received By: Brianna Teel

Date Received: 03/16/2020 07:12

Cooler Temperature: 0.5

Inter-Office Shipment

IOS Number : 60210

Date/Time:	03.13.2020	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Houston**	Air Bill No.:	770018993591	E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
655578-001	W	MW-18	03.11.2020 12:35	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.18.2020 12:35**	JKR	ACNP ACNPY ANTH BZ	
655578-002	W	MW-19	03.11.2020 13:08	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.18.2020 13:08**	JKR	ACNP ACNPY ANTH BZ	
655578-003	W	MW-20	03.11.2020 13:40	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.18.2020 13:40**	JKR	ACNP ACNPY ANTH BZ	
655578-004	W	MW-4	03.11.2020 14:20	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.18.2020 14:20**	JKR	ACNP ACNPY ANTH BZ	
655578-005	W	MW-10	03.11.2020 15:05	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.18.2020 15:05**	JKR	ACNP ACNPY ANTH BZ	
655578-006	W	MW-12	03.12.2020 08:45	SW8270D_SIM_PAH	PAHs by SW846 8270D SIM	03.18.2020	**03.19.2020 08:45**	JKR	ACNP ACNPY ANTH BZ	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 03.13.2020

Received By: Jose Londono

Date Received: 03.14.2020

Cooler Temperature: 5.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 60209

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R9

Sent By: Elizabeth McClellan **Date Sent:** 03/13/2020 10:40 AM

Received By: Brianna Teel **Date Received:** 03/16/2020 07:12 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.5	
#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: 03/16/2020

Brianna Teel

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 60210

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

Sent By: Elizabeth McClellan **Date Sent:** 03.13.2020 10.40 AM

Received By: Jose Londono **Date Received:** 03.14.2020 09.35 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	5.3	
#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: Jose F. Londono Date: 03.14.2020

Jose Londono

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 03.12.2020 04.15.00 PM

Work Order #: 655578

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**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**
#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: 03.13.2020

Checklist reviewed by: Jessica Kramer Date: 03.16.2020

Jessica Kramer

Certificate of Analysis Summary 664310

Talon LPE-Artesia, Artesia, NM

Project Name: Plains Lovington Deep

Project Id: 700376 051 54
Contact: David Adkins
Project Location: Lovington New Mexico

Date Received in Lab: Fri 06.12.2020 08:15
Report Date: 06.19.2020 14:18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	664310-001		664310-002		664310-003		664310-004		664310-005		664310-006	
	Field Id:	MW20		MW19		MW18		MW4		MW11		MW12	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	06.11.2020 09:30		06.11.2020 10:00		06.11.2020 10:15		06.11.2020 11:00		06.11.2020 11:15		06.11.2020 12:45	
BTEX by EPA 8021 **SUB: T104704400-19-19**	***Extracted:***	06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15	
	Analyzed:	06.19.2020 05:47		06.19.2020 06:08		06.19.2020 06:28		06.19.2020 06:48		06.19.2020 07:09		06.19.2020 07:29	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		<0.000408	0.00200	<0.000408	0.00200	0.241 F	0.00200	<0.000408	0.00200	<0.000408	0.00200	0.00101 JF	0.00200
Toluene		<0.000367	0.00200	<0.000367	0.00200	0.0138 F	0.00200	<0.000367	0.00200	<0.000367	0.00200	<0.000367	0.00200
Ethylbenzene		<0.000657	0.00200	<0.000657	0.00200	0.00619 LF	0.00200	<0.000657	0.00200	<0.000657	0.00200	<0.000657	0.00200
m_p-Xylenes		<0.000630	0.00400	<0.000630	0.00400	0.0278 LF	0.00400	<0.000630	0.00400	<0.000630	0.00400	<0.000630	0.00400
o-Xylene		<0.000642	0.00200	<0.000642	0.00200	0.00877 F	0.00200	<0.000642	0.00200	<0.000642	0.00200	<0.000642	0.00200
Xylenes, Total		<0.000630	0.00200	<0.000630	0.00200	0.0366	0.00200	<0.000630	0.00200	<0.000630	0.00200	<0.000630	0.00200
Total BTEX		<0.000367	0.00200	<0.000367	0.00200	0.298	0.00200	<0.000367	0.00200	<0.000367	0.00200	0.00101 J	0.00200

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 664310

Talon LPE-Artesia, Artesia, NM

Project Name: Plains Lovington Deep

Project Id: 700376 051 54
Contact: David Adkins
Project Location: Lovington New Mexico

Date Received in Lab: Fri 06.12.2020 08:15
Report Date: 06.19.2020 14:18
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	664310-007		664310-008		664310-009		664310-010		664310-011		664310-012	
	Field Id:	MW10		MW5		MW8		MW1		MW15		MW16	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	06.11.2020 13:00		06.11.2020 13:20		06.11.2020 13:40		06.11.2020 14:00		06.11.2020 14:40		06.11.2020 14:20	
BTEX by EPA 8021 SUB: T104704400-19-19	*Extracted:*	06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15		06.18.2020 17:15	
	Analyzed:	06.19.2020 07:49		06.19.2020 11:55		06.19.2020 08:30		06.19.2020 09:52		06.19.2020 10:13		06.19.2020 10:33	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Benzene		2.33 DF	0.100	0.00131 JF	0.00200	0.000870 JF	0.00200	<0.000408	0.00200	0.00205 F	0.00200	<0.000408	0.00200
Toluene		0.00104 JF	0.00200	<0.000367	0.00200	<0.000367	0.00200	<0.000367	0.00200	<0.000367	0.00200	<0.000367	0.00200
Ethylbenzene		0.0498 LF	0.00200	<0.000657	0.00200	<0.000657	0.00200	<0.000657	0.00200	0.0235 LF	0.00200	<0.000657	0.00200
m_p-Xylenes		0.00203 JLF	0.00400	<0.000630	0.00400	<0.000630	0.00400	<0.000630	0.00400	0.0140 LF	0.00400	<0.000630	0.00400
o-Xylene		<0.000642	0.00200	<0.000642	0.00200	<0.000642	0.00200	<0.000642	0.00200	<0.000642	0.00200	<0.000642	0.00200
Xylenes, Total		0.00203	0.00200	<0.000630	0.00200	<0.000630	0.00200	<0.000630	0.00200	0.0140	0.00200	<0.000630	0.00200
Total BTEX		2.38	0.00200	0.00131 J	0.00200	0.000870 J	0.00200	<0.000367	0.00200	0.0396	0.00200	<0.000367	0.00200

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 664310

Talon LPE-Artesia, Artesia, NM

Project Name: Plains Lovington Deep

Project Id: 700376 051 54
Contact: David Adkins
Project Location: Lovington New Mexico

Date Received in Lab: Fri 06.12.2020 08:15
Report Date: 06.19.2020 14:18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	664310-013					
	Field Id:	MW3					
	Depth:						
	Matrix:	GROUND WATER					
	Sampled:	06.11.2020 10:30					
BTEX by EPA 8021	***Extracted:***	06.18.2020 17:15					
SUB: T104704400-19-19	***Analyzed:***	06.19.2020 10:53					
	Units/RL:	mg/L RL					
Benzene		0.00554 F 0.00200					
Toluene		<0.000367 0.00200					
Ethylbenzene		0.0774 LF 0.00200					
m_p-Xylenes		0.0907 LF 0.00400					
o-Xylene		0.0196 F 0.00200					
Xylenes, Total		0.110 0.00200					
Total BTEX		0.193 0.00200					

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

Jessica Kramer
Project Manager

Analytical Report 664310

for

Talon LPE-Artesia

Project Manager: David Adkins

Plains Lovington Deep

700376 051 54

06.19.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

06.19.2020

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

Reference: XENCO Report No(s): **664310**
Plains Lovington Deep
Project Address: Lovington New Mexico

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 664310. 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. 664310 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 664310

Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW20	W	06.11.2020 09:30		664310-001
MW19	W	06.11.2020 10:00		664310-002
MW18	W	06.11.2020 10:15		664310-003
MW4	W	06.11.2020 11:00		664310-004
MW11	W	06.11.2020 11:15		664310-005
MW12	W	06.11.2020 12:45		664310-006
MW10	W	06.11.2020 13:00		664310-007
MW5	W	06.11.2020 13:20		664310-008
MW8	W	06.11.2020 13:40		664310-009
MW1	W	06.11.2020 14:00		664310-010
MW15	W	06.11.2020 14:40		664310-011
MW16	W	06.11.2020 14:20		664310-012
MW3	W	06.11.2020 10:30		664310-013

CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Plains Lovington Deep

Project ID: *700376 051 54*
Work Order Number(s): *664310*

Report Date: *06.19.2020*
Date Received: *06.12.2020*

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129459 BTEX by EPA 8021

Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 664310-007.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7705801-1-BLK,7705801-1-BSD,664310-007,664310-001 S,664310-001 SD,664310-009,664310-010,664310-011,664310-012,664310-013,664310-008,664310-006,664310-004,664310-003,664310-002,664310-001,664310-005.

Benzene, Ethylbenzene, Toluene, m_p-Xylenes , o-Xylene RPD was outside laboratory control limits. Samples in the analytical batch are: 664310-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013

Due to misinjection, Ethylbenzene, m,p-Xylenes recovered below QC limits in the laboratory control sample indicating bias low results. Matrix Spike and Matrix Spike Duplicate confirm recovery, therefore data was accepted.. Samples in the analytical batch are: 664310-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

Certificate of Analytical Results 664310

Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW20**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-001	Date Collected:	06.11.2020 09:30		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 05:47	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 05:47	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 05:47	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 05:47	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 05:47	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 05:47	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 05:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.19.2020 05:47	
4-Bromofluorobenzene	460-00-4	133	%	70-130	06.19.2020 05:47	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id: **MW19**
Lab Sample Id: 664310-002

Matrix: Ground Water
Date Collected: 06.11.2020 10:00

Date Received:06.12.2020 08:15

Analytical Method: BTEX by EPA 8021
Tech: KTL
Analyst: KTL
Seq Number: 3129459

Date Prep: 06.18.2020 17:15

Prep Method: SW5030B
% Moisture:

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 06:08	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 06:08	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 06:08	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 06:08	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 06:08	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 06:08	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 06:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	06.19.2020 06:08	
4-Bromofluorobenzene	460-00-4	138	%	70-130	06.19.2020 06:08	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW18**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-003	Date Collected:	06.11.2020 10:15		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.241**	0.00200	0.000408	mg/L	06.19.2020 06:28	F	1
Toluene	108-88-3	**0.0138**	0.00200	0.000367	mg/L	06.19.2020 06:28	F	1
Ethylbenzene	100-41-4	**0.00619**	0.00200	0.000657	mg/L	06.19.2020 06:28	LF	1
m_p-Xylenes	179601-23-1	**0.0278**	0.00400	0.000630	mg/L	06.19.2020 06:28	LF	1
o-Xylene	95-47-6	**0.00877**	0.00200	0.000642	mg/L	06.19.2020 06:28	F	1
Xylenes, Total	1330-20-7	**0.0366**	0.00200	0.000630	mg/L	06.19.2020 06:28		1
Total BTEX		**0.298**	0.00200	0.000367	mg/L	06.19.2020 06:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.19.2020 06:28	
4-Bromofluorobenzene	460-00-4	136	%	70-130	06.19.2020 06:28	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW4**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-004	Date Collected:	06.11.2020 11:00		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 06:48	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 06:48	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 06:48	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 06:48	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 06:48	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 06:48	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 06:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.19.2020 06:48	
4-Bromofluorobenzene	460-00-4	147	%	70-130	06.19.2020 06:48	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW11**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-005	Date Collected:	06.11.2020 11:15		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 07:09	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 07:09	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 07:09	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 07:09	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 07:09	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 07:09	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 07:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	06.19.2020 07:09	
4-Bromofluorobenzene	460-00-4	152	%	70-130	06.19.2020 07:09	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW12**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-006	Date Collected:	06.11.2020 12:45		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00101**	0.00200	0.000408	mg/L	06.19.2020 07:29	JF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 07:29	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 07:29	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 07:29	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 07:29	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 07:29	U	1
Total BTEX		**0.00101**	0.00200	0.000367	mg/L	06.19.2020 07:29	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.19.2020 07:29	
4-Bromofluorobenzene	460-00-4	145	%	70-130	06.19.2020 07:29	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW10**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-007	Date Collected:	06.11.2020 13:00		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**2.33**	0.100	0.0204	mg/L	06.19.2020 12:16	DF	50
Toluene	108-88-3	**0.00104**	0.00200	0.000367	mg/L	06.19.2020 07:49	JF	1
Ethylbenzene	100-41-4	**0.0498**	0.00200	0.000657	mg/L	06.19.2020 07:49	LF	1
m_p-Xylenes	179601-23-1	**0.00203**	0.00400	0.000630	mg/L	06.19.2020 07:49	JLF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 07:49	UF	1
Xylenes, Total	1330-20-7	**0.00203**	0.00200	0.000630	mg/L	06.19.2020 07:49		1
Total BTEX		**2.38**	0.00200	0.000367	mg/L	06.19.2020 12:16		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	149	%	70-130	06.19.2020 07:49	**
4-Bromofluorobenzene	460-00-4	142	%	70-130	06.19.2020 07:49	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW5**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-008	Date Collected:	06.11.2020 13:20		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00131**	0.00200	0.000408	mg/L	06.19.2020 11:55	JF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 11:55	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 11:55	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 11:55	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 11:55	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 11:55	U	1
Total BTEX		**0.00131**	0.00200	0.000367	mg/L	06.19.2020 11:55	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	06.19.2020 11:55	
4-Bromofluorobenzene	460-00-4	147	%	70-130	06.19.2020 11:55	**

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Plains Lovington Deep

Sample Id:	**MW8**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-009	Date Collected:	06.11.2020 13:40		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.000870**	0.00200	0.000408	mg/L	06.19.2020 08:30	JF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 08:30	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 08:30	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 08:30	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 08:30	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 08:30	U	1
Total BTEX		**0.000870**	0.00200	0.000367	mg/L	06.19.2020 08:30	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	06.19.2020 08:30	
4-Bromofluorobenzene	460-00-4	146	%	70-130	06.19.2020 08:30	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id: **MW1**
Lab Sample Id: 664310-010

Matrix: Ground Water
Date Collected: 06.11.2020 14:00

Date Received:06.12.2020 08:15

Analytical Method: BTEX by EPA 8021
Tech: KTL
Analyst: KTL
Seq Number: 3129459

Date Prep: 06.18.2020 17:15

Prep Method: SW5030B
% Moisture:

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 09:52	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 09:52	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 09:52	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 09:52	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 09:52	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 09:52	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 09:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.19.2020 09:52	
4-Bromofluorobenzene	460-00-4	140	%	70-130	06.19.2020 09:52	**

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Plains Lovington Deep

Sample Id:	**MW15**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-011	Date Collected:	06.11.2020 14:40		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00205**	0.00200	0.000408	mg/L	06.19.2020 10:13	F	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 10:13	UF	1
Ethylbenzene	100-41-4	**0.0235**	0.00200	0.000657	mg/L	06.19.2020 10:13	LF	1
m_p-Xylenes	179601-23-1	**0.0140**	0.00400	0.000630	mg/L	06.19.2020 10:13	LF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 10:13	UF	1
Xylenes, Total	1330-20-7	**0.0140**	0.00200	0.000630	mg/L	06.19.2020 10:13		1
Total BTEX		**0.0396**	0.00200	0.000367	mg/L	06.19.2020 10:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.19.2020 10:13	
4-Bromofluorobenzene	460-00-4	146	%	70-130	06.19.2020 10:13	**

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Plains Lovington Deep

Sample Id: **MW16**
Lab Sample Id: 664310-012

Matrix: Ground Water
Date Collected: 06.11.2020 14:20

Date Received:06.12.2020 08:15

Analytical Method: BTEX by EPA 8021
Tech: KTL
Analyst: KTL
Seq Number: 3129459

Date Prep: 06.18.2020 17:15

Prep Method: SW5030B
% Moisture:

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	06.19.2020 10:33	UF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 10:33	UF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	06.19.2020 10:33	ULF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	06.19.2020 10:33	ULF	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	06.19.2020 10:33	UF	1
Xylenes, Total	1330-20-7	<0.000630	0.00200	0.000630	mg/L	06.19.2020 10:33	U	1
Total BTEX		<0.000367	0.00200	0.000367	mg/L	06.19.2020 10:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	06.19.2020 10:33	
4-Bromofluorobenzene	460-00-4	138	%	70-130	06.19.2020 10:33	**

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Talon LPE-Artesia, Artesia, NM

Plains Lovington Deep

Sample Id:	**MW3**	Matrix:	Ground Water	Date Received:	06.12.2020 08:15
Lab Sample Id:	664310-013	Date Collected:	06.11.2020 10:30		
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.18.2020 17:15		
Seq Number:	3129459			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00554**	0.00200	0.000408	mg/L	06.19.2020 10:53	F	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	06.19.2020 10:53	UF	1
Ethylbenzene	100-41-4	**0.0774**	0.00200	0.000657	mg/L	06.19.2020 10:53	LF	1
m_p-Xylenes	179601-23-1	**0.0907**	0.00400	0.000630	mg/L	06.19.2020 10:53	LF	1
o-Xylene	95-47-6	**0.0196**	0.00200	0.000642	mg/L	06.19.2020 10:53	F	1
Xylenes, Total	1330-20-7	**0.110**	0.00200	0.000630	mg/L	06.19.2020 10:53		1
Total BTEX		**0.193**	0.00200	0.000367	mg/L	06.19.2020 10:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.19.2020 10:53	
4-Bromofluorobenzene	460-00-4	154	%	70-130	06.19.2020 10:53	**

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. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 664310

Talon LPE-Artesia

Plains Lovington Deep

Analytical Method: **BTEX by EPA 8021** Prep Method: SW5030B
Seq Number: 3129459 Matrix: Water Date Prep: 06.18.2020
MB Sample Id: 7705801-1-BLK LCS Sample Id: 7705801-1-BKS LCSD Sample Id: 7705801-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000408	0.100	0.0714	71	0.107	107	70-130	40	25	mg/L	06.19.2020 03:06	F
Toluene	<0.000367	0.100	0.0698	70	0.0993	99	70-130	35	25	mg/L	06.19.2020 03:06	F
Ethylbenzene	<0.000657	0.100	0.0667	67	0.100	100	70-130	40	25	mg/L	06.19.2020 03:06	LF
m_p-Xylenes	<0.000630	0.200	0.133	67	0.203	102	70-130	42	25	mg/L	06.19.2020 03:06	LF
o-Xylene	<0.000642	0.100	0.0704	70	0.103	103	70-130	38	25	mg/L	06.19.2020 03:06	F

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		83		90		70-130	%	06.19.2020 03:06
4-Bromofluorobenzene	140	**	110		140	**	70-130	%	06.19.2020 03:06

Analytical Method: **BTEX by EPA 8021** Prep Method: SW5030B
Seq Number: 3129459 Matrix: Ground Water Date Prep: 06.18.2020
Parent Sample Id: 664310-001 MS Sample Id: 664310-001 S MSD Sample Id: 664310-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000408	0.100	0.103	103	0.0982	98	70-130	5	25	mg/L	06.19.2020 03:46	
Toluene	<0.000367	0.100	0.0980	98	0.0905	91	70-130	8	25	mg/L	06.19.2020 03:46	
Ethylbenzene	<0.000657	0.100	0.100	100	0.0912	91	70-130	9	25	mg/L	06.19.2020 03:46	
m_p-Xylenes	<0.000630	0.200	0.206	103	0.186	93	70-130	10	25	mg/L	06.19.2020 03:46	
o-Xylene	<0.000642	0.100	0.101	101	0.0944	94	70-130	7	25	mg/L	06.19.2020 03:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		85		70-130	%	06.19.2020 03:46
4-Bromofluorobenzene	134	**	133	**	70-130	%	06.19.2020 03:46

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Chain of Custody

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

Work Order No: 664310

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS ALL AMERICAN
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 TEXAS	Address:	ATTN CAMILLE BRYANT
City, State ZIP:	ARTESIA NEW MEXICO	City, State ZIP:	SRS # 2002-10312
Phone:	575 441 4835	Email:	DADKINS@TALONLPE.COM

Work Order Comments

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

Project Name:	PLAINS LOVINGTON DEEP	Turn Around	
Project Number:	200326 051 54	Routine	☒
Project Location	LOVINGTON NEW MEXICO	Rush:	
Sampler's Name:	Bill Riggs	Due Date:	
PO #:	SRS # 2002-10312	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.9/3.7	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:	39

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST: BTEX
	MW20	GW	6-11-2020	9:30AM		3		X
	MW19	↑		10AM		↑		X
	MW18			10:15AM				X
	MW4			11AM				X
	MW11			11:15AM				X
	MW12			12:45pm				X
	MW10			1:00pm				X
	MW5			1:20pm				X
	MW8	↓		1:40pm		↓		X
	MW1	GW	6-11-2020	2:00pm		3		X

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
Bill Riggs		6/12/20 08:15	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Chain of Custody

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

Work Order No: 620310

Page 2 of 2

Project Manager:	DAVID ADKINS	Bill to: (if different)	PLAINS All AMERICAN
Company Name:	TALON LPE	Company Name:	PIPELINE
Address:	408 TEXAS	Address:	ATTN: CAMILLE BRYANT
City, State ZIP:	ARTESIA NEW MEXICO 88210	City, State ZIP:	SRS # 2002-10312
Phone:	575 441 4835	Email:	DADKINS@TALONLPE.COM

Work Order Comments

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

Project Name:	PLAINS LOVINGTON DEEP	Turn Around	
Project Number:	700376 051 54	Routine	☒
Project Location	LOVINGTON NEW MEXICO	Rush:	
Sampler's Name:	Bill Riggs	Due Date:	
PO #:	SRS # 2002-10312	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	ANALYSIS REQUEST: BTEX
	MW 15	GW	6-11-2020	2:40 pm		3	X	
	MW 16	GW	6-11-2020	2:30 pm		3	X	
	MW3	GW	6-11-2020	10:30AM		3	X	

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
Bill Riggs		6/12/2020 8:15	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number : 65387

Date/Time: 06.15.2020
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
664310-001	W	MW20	06.11.2020 09:30	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-002	W	MW19	06.11.2020 10:00	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-003	W	MW18	06.11.2020 10:15	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-004	W	MW4	06.11.2020 11:00	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-005	W	MW11	06.11.2020 11:15	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-006	W	MW12	06.11.2020 12:45	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-007	W	MW10	06.11.2020 13:00	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-008	W	MW5	06.11.2020 13:20	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-009	W	MW8	06.11.2020 13:40	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-010	W	MW1	06.11.2020 14:00	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-011	W	MW15	06.11.2020 14:40	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-012	W	MW16	06.11.2020 14:20	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	
664310-013	W	MW3	06.11.2020 10:30	SW8021B	BTEX by EPA 8021	06.18.2020	06.25.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan
Date Relinquished: 06.15.2020

Received By: Jessica Kramer
Date Received: 06.16.2020
Cooler Temperature: 2.2

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 65387

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

Sent By: Elizabeth McClellan **Date Sent:** 06.15.2020 10.18 AM

Received By: Jessica Kramer **Date Received:** 06.16.2020 11.00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#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: Jessica Kramer Date: 06.16.2020

Jessica Kramer

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 06.12.2020 08.15.00 AM

Work Order #: 664310

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)?	3.7	
#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: 06.12.2020

Checklist reviewed by: Jessica Kramer Date: 06.15.2020

Jessica Kramer

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Analytical Report 672394

for

Talon LPE-Artesia

Project Manager: David Adkins

Lovington Deep

700376.051.54

09.17.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

09.17.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **672394**
Lovington Deep
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 Eurofins Xenco, LLC Report Number(s) 672394. 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 Eurofins Xenco, LLC. 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. 672394 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 Eurofins Xenco, LLC 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 Manager

A Small Business and Minority Company

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

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Sample Cross Reference 672394

Talon LPE-Artesia, Artesia, NM

Lovington Deep

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW 20	W	09.08.2020 10:40		672394-001
MW 19	W	09.08.2020 11:40		672394-002
MW 18	W	09.08.2020 12:50		672394-003
MW 3	W	09.08.2020 14:10		672394-004
MW 4	W	09.08.2020 15:10		672394-005
MW 11	W	09.08.2020 15:40		672394-006
MW 12	W	09.10.2020 10:15		672394-007
MW 9	W	09.10.2020 11:15		672394-008
MW 5	W	09.10.2020 13:30		672394-009
MW 8	W	09.10.2020 14:00		672394-010
MW 1	W	09.10.2020 15:15		672394-011
MW 16	W	09.11.2020 11:15		672394-012
MW 15	W	09.11.2020 13:00		672394-013

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CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Lovington Deep

Project ID:	*700376.051.54*	Report Date:	*09.17.2020*
Work Order Number(s):	*672394*	Date Received:	*09.11.2020*

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:

Email analyticals to Camille Bryant.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3137252 BTEX by EPA 8021

Benzene, Ethylbenzene, Toluene, 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: 672394-001, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013

Lab Sample ID 672394-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, 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: 672394-001, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.
The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits, therefore the data was accepted.

eurofins | Environment Testing Xenco

Certificate of Analytical Results
672394
Talon LPE-Artesia, Artesia, NM
Lovington Deep

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

Lab Sample Id: 672394-001 Date Collected: 09.08.2020 10:40 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.15.2020 13:54	UXF	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 13:54	UXF	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 13:54	UXF	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 13:54	UFX	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 13:54	UFX	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 13:54	U	
Total BTEX		<0.000367		0.000367	mg/L	09.15.2020 13:54	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	88	70 - 130	%		
4-Bromofluorobenzene	87	70 - 130	%		

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

Lab Sample Id: 672394-002 Date Collected: 09.08.2020 11:40 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137305 Date Prep: 09.16.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711452

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**1.21**	0.0100	0.00204	mg/L	09.16.2020 13:55		5
Toluene	108-88-3	<0.00184	0.0100	0.00184	mg/L	09.16.2020 13:55	U	5
Ethylbenzene	100-41-4	<0.00329	0.0100	0.00329	mg/L	09.16.2020 13:55	U	5
m_p-Xylenes	179601-23-1	<0.00315	0.0200	0.00315	mg/L	09.16.2020 13:55	U	5
o-Xylene	95-47-6	<0.00321	0.0100	0.00321	mg/L	09.16.2020 13:55	U	5
Xylenes, Total	1330-20-7	<0.00315		0.00315	mg/L	09.16.2020 13:55	U	
Total BTEX		**1.21**		0.00184	mg/L	09.16.2020 13:55		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	96	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Lovington Deep

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

Lab Sample Id: 672394-003 Date Collected: 09.08.2020 12:50 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137305 Date Prep: 09.16.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711452

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.135**	0.0100	0.00204	mg/L	09.16.2020 14:17		5
Toluene	108-88-3	**0.0242**	0.0100	0.00184	mg/L	09.16.2020 14:17		5
Ethylbenzene	100-41-4	**0.0119**	0.0100	0.00329	mg/L	09.16.2020 14:17		5
m_p-Xylenes	179601-23-1	**0.0399**	0.0200	0.00315	mg/L	09.16.2020 14:17		5
o-Xylene	95-47-6	**0.0118**	0.0100	0.00321	mg/L	09.16.2020 14:17		5
Xylenes, Total	1330-20-7	**0.0517**		0.00315	mg/L	09.16.2020 14:17		
Total BTEX		**0.223**		0.00184	mg/L	09.16.2020 14:17		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	118	70 - 130	%		

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

Lab Sample Id: 672394-004 Date Collected: 09.08.2020 14:10 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.15.2020 14:19	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 14:19	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 14:19	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 14:19	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 14:19	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 14:19	U	
Total BTEX		<0.000367		0.000367	mg/L	09.15.2020 14:19	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	91	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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Sample Id: **MW 4** Matrix: Water Sample Depth:

Lab Sample Id: 672394-005 Date Collected: 09.08.2020 15:10 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0132**	0.00200	0.000408	mg/L	09.15.2020 14:40		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 14:40	U	1
Ethylbenzene	100-41-4	**0.0497**	0.00200	0.000657	mg/L	09.15.2020 14:40		1
m_p-Xylenes	179601-23-1	**0.0604**	0.00400	0.000630	mg/L	09.15.2020 14:40		1
o-Xylene	95-47-6	**0.0118**	0.00200	0.000642	mg/L	09.15.2020 14:40		1
Xylenes, Total	1330-20-7	**0.0722**		0.000630	mg/L	09.15.2020 14:40		
Total BTEX		**0.135**		0.000367	mg/L	09.15.2020 14:40		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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

Lab Sample Id: 672394-006 Date Collected: 09.08.2020 15:40 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00575**	0.00200	0.000408	mg/L	09.15.2020 15:36		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 15:36	U	1
Ethylbenzene	100-41-4	**0.00384**	0.00200	0.000657	mg/L	09.15.2020 15:36		1
m_p-Xylenes	179601-23-1	**0.00263**	0.00400	0.000630	mg/L	09.15.2020 15:36	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 15:36	U	1
Xylenes, Total	1330-20-7	**0.00263**		0.000630	mg/L	09.15.2020 15:36		
Total BTEX		**0.0122**		0.000367	mg/L	09.15.2020 15:36		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

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Lovington Deep

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

Lab Sample Id: 672394-007 Date Collected: 09.10.2020 10:15 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00874**	0.00200	0.000408	mg/L	09.15.2020 15:58		1
Toluene	108-88-3	**0.000510**	0.00200	0.000367	mg/L	09.15.2020 15:58	J	1
Ethylbenzene	100-41-4	**0.00161**	0.00200	0.000657	mg/L	09.15.2020 15:58	J	1
m_p-Xylenes	179601-23-1	**0.00117**	0.00400	0.000630	mg/L	09.15.2020 15:58	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 15:58	U	1
Xylenes, Total	1330-20-7	**0.00117**		0.000630	mg/L	09.15.2020 15:58	J	
Total BTEX		**0.0120**		0.000367	mg/L	09.15.2020 15:58		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	95	70 - 130	%		

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

Lab Sample Id: 672394-008 Date Collected: 09.10.2020 11:15 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00496**	0.00200	0.000408	mg/L	09.15.2020 16:19		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 16:19	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 16:19	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 16:19	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 16:19	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 16:19	U	
Total BTEX		**0.00496**		0.000367	mg/L	09.15.2020 16:19		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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Lovington Deep

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

Lab Sample Id: 672394-009 Date Collected: 09.10.2020 13:30 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00138**	0.00200	0.000408	mg/L	09.15.2020 16:39	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 16:39	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 16:39	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 16:39	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 16:39	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 16:39	U	
Total BTEX		**0.00138**		0.000367	mg/L	09.15.2020 16:39	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	99	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		

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

Lab Sample Id: 672394-010 Date Collected: 09.10.2020 14:00 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00208**	0.00200	0.000408	mg/L	09.15.2020 17:00		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 17:00	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 17:00	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 17:00	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 17:00	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 17:00	U	
Total BTEX		**0.00208**		0.000367	mg/L	09.15.2020 17:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	98	70 - 130	%		

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Lovington Deep

Sample Id: **MW 1** Matrix: Water Sample Depth:

Lab Sample Id: 672394-011 Date Collected: 09.10.2020 15:15 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00236**	0.00200	0.000408	mg/L	09.15.2020 17:21		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 17:21	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 17:21	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 17:21	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 17:21	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	09.15.2020 17:21	U	
Total BTEX		**0.00236**		0.000367	mg/L	09.15.2020 17:21		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	100	70 - 130	%		
4-Bromofluorobenzene	103	70 - 130	%		

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

Lab Sample Id: 672394-012 Date Collected: 09.11.2020 11:15 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00140**	0.00200	0.000408	mg/L	09.15.2020 17:42	J	1
Toluene	108-88-3	**0.000380**	0.00200	0.000367	mg/L	09.15.2020 17:42	J	1
Ethylbenzene	100-41-4	**0.00354**	0.00200	0.000657	mg/L	09.15.2020 17:42		1
m_p-Xylenes	179601-23-1	**0.00299**	0.00400	0.000630	mg/L	09.15.2020 17:42	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 17:42	U	1
Xylenes, Total	1330-20-7	**0.00299**		0.000630	mg/L	09.15.2020 17:42		
Total BTEX		**0.00831**		0.000367	mg/L	09.15.2020 17:42		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	103	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

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

Lab Sample Id: 672394-013 Date Collected: 09.11.2020 13:00 Date Received: 09.11.2020 15:44

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000940**	0.00200	0.000408	mg/L	09.15.2020 19:23	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 19:23	U	1
Ethylbenzene	100-41-4	**0.00715**	0.00200	0.000657	mg/L	09.15.2020 19:23		1
m_p-Xylenes	179601-23-1	**0.00268**	0.00400	0.000630	mg/L	09.15.2020 19:23	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 19:23	U	1
Xylenes, Total	1330-20-7	**0.00268**		0.000630	mg/L	09.15.2020 19:23		
Total BTEX		**0.0108**		0.000367	mg/L	09.15.2020 19:23		

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

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Lovington Deep

Sample Id: **7711426-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7711426-1-BLK Date Collected: Date Received:

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137252 Date Prep: 09.15.2020 08:30

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711426

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.15.2020 13:33	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.15.2020 13:33	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.15.2020 13:33	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.15.2020 13:33	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.15.2020 13:33	U	1

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

Sample Id: **7711452-1-BLK** Matrix: Water Sample Depth:

Lab Sample Id: 7711452-1-BLK Date Collected: Date Received:

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

Analyst: AMF % Moist: Tech: AMF

Seq Number: 3137305 Date Prep: 09.16.2020 10:00

Subcontractor: SUB: T104704400-20-21 Prep seq: 7711452

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	09.16.2020 12:26	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	09.16.2020 12:26	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	09.16.2020 12:26	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	09.16.2020 12:26	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	09.16.2020 12:26	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	86	70 - 130	%		
4-Bromofluorobenzene	92	70 - 130	%		

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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. **ND** Not Detected.

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

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Form 2 - Surrogate Recoveries

Project Name: Lovington Deep

Report Date: 09172020

Work Orders : 672394 **Project ID:** 700376.051.54

Lab Batch #: 3137252 **Sample:** 7711426-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.15.2020 09:12 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0308	0.0300	103	70-130	

Lab Batch #: 3137252 **Sample:** 7711426-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.15.2020 09:32 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	70-130	
4-Bromofluorobenzene	0.0304	0.0300	101	70-130	

Lab Batch #: 3137252 **Sample:** 672394-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.15.2020 12:06 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0307	0.0300	102	70-130	

Lab Batch #: 3137252 **Sample:** 672394-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.15.2020 12:26 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0315	0.0300	105	70-130	

Lab Batch #: 3137252 **Sample:** 7711426-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.15.2020 13:33 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	70-130	
4-Bromofluorobenzene	0.0265	0.0300	88	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.

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Form 2 - Surrogate Recoveries

Project Name: Lovington Deep

Report Date: 09172020

Work Orders : 672394 **Project ID:** 700376.051.54

Lab Batch #: 3137305 **Sample:** 7711452-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.16.2020 10:19 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3137305 **Sample:** 7711452-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.16.2020 10:39 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3137305 **Sample:** 672423-007 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.16.2020 11:00 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

Lab Batch #: 3137305 **Sample:** 672423-007 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.16.2020 11:21 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	70-130	
4-Bromofluorobenzene	0.0354	0.0300	118	70-130	

Lab Batch #: 3137305 **Sample:** 7711452-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 09.16.2020 12:26 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	70-130	
4-Bromofluorobenzene	0.0275	0.0300	92	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.

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BS / BSD Recoveries

Project Name: Lovington Deep

Work Order #: 672394 **Project ID:** 700376.051.54

Analyst: AMF **Date Prepared:** 09.15.2020 **Date Analyzed:** 09.15.2020

Lab Batch ID: 3137252 **Sample:** 7711426-1-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	0.105	105	0.100	0.0952	95	10	70-130	25	
Toluene	<0.000367	0.100	0.108	108	0.100	0.0958	96	12	70-130	25	
Ethylbenzene	<0.000657	0.100	0.105	105	0.100	0.0941	94	11	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.223	112	0.200	0.200	100	11	70-130	25	
o-Xylene	<0.000642	0.100	0.111	111	0.100	0.0992	99	11	70-130	25	

Analyst: AMF **Date Prepared:** 09.16.2020 **Date Analyzed:** 09.16.2020

Lab Batch ID: 3137305 **Sample:** 7711452-1-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	0.101	101	0.100	0.0984	98	3	70-130	25	
Toluene	<0.000367	0.100	0.104	104	0.100	0.102	102	2	70-130	25	
Ethylbenzene	<0.000657	0.100	0.102	102	0.100	0.0974	97	5	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.218	109	0.200	0.208	104	5	70-130	25	
o-Xylene	<0.000642	0.100	0.107	107	0.100	0.101	101	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

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Form 3 - MS / MSD Recoveries

Project Name: Lovington Deep

Report Date: 09172020

Work Order # : 672394 **Project ID:** 700376.051.54

Lab Batch ID: 3137252 **QC- Sample ID:** 672394-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09.15.2020 **Date Prepared:** 09.15.2020 **Analyst:** AMF

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	0.00247	2	0.100	0.106	106	191	70-130	25	XF
Toluene	<0.000367	0.100	0.00233	2	0.100	0.109	109	192	70-130	25	XF
Ethylbenzene	<0.000657	0.100	0.00231	2	0.100	0.107	107	192	70-130	25	XF
m_p-Xylenes	<0.000630	0.200	0.00362	2	0.200	0.227	114	194	70-130	25	XF
o-Xylene	<0.000642	0.100	0.00345	3	0.100	0.112	112	188	70-130	25	XF

Lab Batch ID: 3137305 **QC- Sample ID:** 672423-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 09.16.2020 **Date Prepared:** 09.16.2020 **Analyst:** AMF

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	0.108	0.100	0.214	106	0.100	0.218	110	2	70-130	25	
Toluene	0.000820	0.100	0.109	108	0.100	0.112	111	3	70-130	25	
Ethylbenzene	0.0317	0.100	0.142	110	0.100	0.144	112	1	70-130	25	
m_p-Xylenes	0.00410	0.200	0.235	115	0.200	0.242	119	3	70-130	25	
o-Xylene	<0.000642	0.100	0.112	112	0.100	0.117	117	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: 672394

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

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon LPE	Company Name:	Pipe line
Address:	408 Texas Street	Address:	Attn: Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS# 2002-10312
Phone:	575-441-4835	Email:	dadkins@talonlpe.com

Work Order Comments

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

Project Name:	Lovington Deep	Turn Around	
Project Number:	700376.051.54	Routine	☒
Project Location	SRS# 2002-10312	Rush:	
Sampler's Name:	Roy Bell	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.2/2.0	Thermometer ID	
Received Intact:	(Yes) No	TNM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	39

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX
	MW 20	GW	9/8/20	10:40	N/A	3		X
	MW 19			11:40				
	MW 18			12:50				
	MW 3			2:10				
	MW 4			3:10				
	MW 11			3:40				
	MW 12		9/10/20	10:15				
	MW 9		9/10/20	11:15				
	MW 5			1:30				
	MW 8			2:00				

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

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

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

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	Roy Bell	Clue Clifton	9.11.20 15:44	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Chain of Custody

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

Work Order No: 672394

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon LPE	Company Name:	Pipe line
Address:	408 Texas Street	Address:	Attn: Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS# 2002-10312
Phone:	575-441-4835	Email:	dadkins@talonlpe.com

Work Order Comments

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

Project Name:	Lovington Deep	Turn Around	
Project Number:	700376.051.54	Routine	☒
Project Location	SRS# 2002-10312	Rush:	
Sampler's Name:	RayBell	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.2/2.0	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	39

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Sample Comments
	MW1	GW	9/10/20	3:15	N/A	3		BTEX	Email Analyticals to Camille Bryant
	MW16	"	9/11/20	11:15	"	"		"	
	MW15	"	9/11/20	1:00	"	"		"	

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
Ray Bell	Cloe Clifton	9.11.20 15:44	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number : 70322

Date/Time: 09.14.2020
Lab# From: **Carlsbad**
Lab# To: **Midland**
Created by: Cloe Clifton
Delivery Priority:
Air Bill No.: 771521882852
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
672394-001	W	MW 20	09.08.2020 10:40	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-002	W	MW 19	09.08.2020 11:40	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-003	W	MW 18	09.08.2020 12:50	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-004	W	MW 3	09.08.2020 14:10	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-005	W	MW 4	09.08.2020 15:10	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-006	W	MW 11	09.08.2020 15:40	SW8021B	BTEX by EPA 8021	09.17.2020	09.22.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-007	W	MW 12	09.10.2020 10:15	SW8021B	BTEX by EPA 8021	09.17.2020	09.24.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-008	W	MW 9	09.10.2020 11:15	SW8021B	BTEX by EPA 8021	09.17.2020	09.24.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-009	W	MW 5	09.10.2020 13:30	SW8021B	BTEX by EPA 8021	09.17.2020	09.24.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-010	W	MW 8	09.10.2020 14:00	SW8021B	BTEX by EPA 8021	09.17.2020	09.24.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-011	W	MW 1	09.10.2020 15:15	SW8021B	BTEX by EPA 8021	09.17.2020	09.24.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-012	W	MW 16	09.11.2020 11:15	SW8021B	BTEX by EPA 8021	09.17.2020	09.25.2020	JKR	BR4FBZ BZ BZME EBZ	
672394-013	W	MW 15	09.11.2020 13:00	SW8021B	BTEX by EPA 8021	09.17.2020	09.25.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton
Date Relinquished: 09.14.2020

Received By: Brianna Teel
Date Received: 09.15.2020
Cooler Temperature: 0.5

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 70322

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR-8

Sent By: Cloe Clifton **Date Sent:** 09.14.2020 11.01 AM

Received By: Brianna Teel **Date Received:** 09.15.2020 11.19 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.5	
#2 *Shipping container in good condition?	**Yes**	-0.4
#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: 09.15.2020

Brianna Teel

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 09.11.2020 03.44.00 PM

Work Order #: 672394

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**	Samples sent 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: Cloe Clifton Date: 09.11.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 09.14.2020

Jessica Kramer

eurofins | Environment Testing Xenco

Analytical Report 681229

for

Talon LPE-Artesia

Project Manager: David Adkins

Lovington Deep 6"

700376.051.54

12.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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12.23.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **681229**
Lovington Deep 6"
Project Address: Hobbs, New Mexico

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 681229. 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 Eurofins Xenco, LLC. 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. 681229 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 Eurofins Xenco, LLC 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 Manager

A Small Business and Minority Company

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

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Sample Cross Reference 681229

Talon LPE-Artesia, Artesia, NM

Lovington Deep 6"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-19	W	12.14.2020 10:30		681229-001
MW-18	W	12.14.2020 10:00		681229-002
MW-20	W	12.14.2020 11:00		681229-003
MW-3	W	12.14.2020 13:00		681229-004
MW-4	W	12.14.2020 14:00		681229-005
MW-1	W	12.14.2020 15:10		681229-006
MW-11	W	12.15.2020 08:30		681229-007
MW-12	W	12.15.2020 09:05		681229-008
MW-9	W	12.15.2020 09:45		681229-009
MW-5	W	12.15.2020 11:00		681229-010
MW-8	W	12.15.2020 11:40		681229-011
MW-16	W	12.15.2020 13:50		681229-012
MW-15	W	12.15.2020 12:50		681229-013

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CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Lovington Deep 6"

Project ID:	*700376.051.54*	Report Date:	*12.23.2020*
Work Order Number(s):	*681229*	Date Received:	*12.15.2020*

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3145802 BTEX by EPA 8021

Lab Sample ID 681229-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 681229-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

The Laboratory Control Sample for Benzene is within laboratory Control Limits, therefore the data was accepted.

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681229

Talon LPE-Artesia, Artesia, NM

Lovington Deep 6"

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

Lab Sample Id: 681229-001 Date Collected: 12.14.2020 10:30 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.336**	0.00200	0.000408	mg/L	12.22.2020 13:09	X	1
Toluene	108-88-3	**0.00208**	0.00200	0.000367	mg/L	12.22.2020 13:09		1
Ethylbenzene	100-41-4	**0.00131**	0.00200	0.000657	mg/L	12.22.2020 13:09	J	1
m_p-Xylenes	179601-23-1	**0.00116**	0.00400	0.000630	mg/L	12.22.2020 13:09	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 13:09	U	1
Xylenes, Total	1330-20-7	**0.00116**		0.000630	mg/L	12.22.2020 13:09	J	
Total BTEX		**0.3406**		0.0003670	mg/L	12.22.2020 13:09		

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

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

Lab Sample Id: 681229-002 Date Collected: 12.14.2020 10:00 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.0479**	0.00200	0.000408	mg/L	12.22.2020 13:29		1
Toluene	108-88-3	**0.0196**	0.00200	0.000367	mg/L	12.22.2020 13:29		1
Ethylbenzene	100-41-4	**0.00646**	0.00200	0.000657	mg/L	12.22.2020 13:29		1
m_p-Xylenes	179601-23-1	**0.00305**	0.00400	0.000630	mg/L	12.22.2020 13:29	J	1
o-Xylene	95-47-6	**0.00232**	0.00200	0.000642	mg/L	12.22.2020 13:29		1
Xylenes, Total	1330-20-7	**0.00537**		0.000630	mg/L	12.22.2020 13:29		
Total BTEX		**0.07933**		0.0003670	mg/L	12.22.2020 13:29		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	101	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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681229
Talon LPE-Artesia, Artesia, NM
Lovington Deep 6"

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

Lab Sample Id: 681229-003 Date Collected: 12.14.2020 11:00 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00320**	0.00200	0.000408	mg/L	12.22.2020 13:50		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 13:50	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.22.2020 13:50	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.22.2020 13:50	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 13:50	U	1
Xylenes, Total	1330-20-7	<0.000630		0.000630	mg/L	12.22.2020 13:50	U	
Total BTEX		**0.003200**		0.0003670	mg/L	12.22.2020 13:50		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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

Lab Sample Id: 681229-004 Date Collected: 12.14.2020 13:00 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00300**	0.00200	0.000408	mg/L	12.22.2020 14:10		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 14:10	U	1
Ethylbenzene	100-41-4	**0.0364**	0.00200	0.000657	mg/L	12.22.2020 14:10		1
m_p-Xylenes	179601-23-1	**0.0502**	0.00400	0.000630	mg/L	12.22.2020 14:10		1
o-Xylene	95-47-6	**0.00954**	0.00200	0.000642	mg/L	12.22.2020 14:10		1
Xylenes, Total	1330-20-7	**0.0597**		0.000630	mg/L	12.22.2020 14:10		
Total BTEX		**0.09914**		0.0003670	mg/L	12.22.2020 14:10		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Lovington Deep 6"

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

Lab Sample Id: 681229-005 Date Collected: 12.14.2020 14:00 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00110**	0.00200	0.000408	mg/L	12.22.2020 14:30	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 14:30	U	1
Ethylbenzene	100-41-4	**0.00457**	0.00200	0.000657	mg/L	12.22.2020 14:30		1
m_p-Xylenes	179601-23-1	**0.00540**	0.00400	0.000630	mg/L	12.22.2020 14:30		1
o-Xylene	95-47-6	**0.00119**	0.00200	0.000642	mg/L	12.22.2020 14:30	J	1
Xylenes, Total	1330-20-7	**0.00659**		0.000630	mg/L	12.22.2020 14:30		
Total BTEX		**0.01226**		0.0003670	mg/L	12.22.2020 14:30		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	96	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

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

Lab Sample Id: 681229-006 Date Collected: 12.14.2020 15:10 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000820**	0.00200	0.000408	mg/L	12.22.2020 14:51	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 14:51	U	1
Ethylbenzene	100-41-4	**0.00270**	0.00200	0.000657	mg/L	12.22.2020 14:51		1
m_p-Xylenes	179601-23-1	**0.00303**	0.00400	0.000630	mg/L	12.22.2020 14:51	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 14:51	U	1
Xylenes, Total	1330-20-7	**0.00303**		0.000630	mg/L	12.22.2020 14:51		
Total BTEX		**0.006550**		0.0003670	mg/L	12.22.2020 14:51		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Lovington Deep 6"

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

Lab Sample Id: 681229-007 Date Collected: 12.15.2020 08:30 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00153**	0.00200	0.000408	mg/L	12.22.2020 15:11	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 15:11	U	1
Ethylbenzene	100-41-4	**0.00251**	0.00200	0.000657	mg/L	12.22.2020 15:11		1
m_p-Xylenes	179601-23-1	**0.00254**	0.00400	0.000630	mg/L	12.22.2020 15:11	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 15:11	U	1
Xylenes, Total	1330-20-7	**0.00254**		0.000630	mg/L	12.22.2020 15:11		
Total BTEX		**0.006580**		0.0003670	mg/L	12.22.2020 15:11		

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

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

Lab Sample Id: 681229-008 Date Collected: 12.15.2020 09:05 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.00213**	0.00200	0.000408	mg/L	12.22.2020 15:32		1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 15:32	U	1
Ethylbenzene	100-41-4	**0.00236**	0.00200	0.000657	mg/L	12.22.2020 15:32		1
m_p-Xylenes	179601-23-1	**0.00217**	0.00400	0.000630	mg/L	12.22.2020 15:32	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 15:32	U	1
Xylenes, Total	1330-20-7	**0.00217**		0.000630	mg/L	12.22.2020 15:32		
Total BTEX		**0.006660**		0.0003670	mg/L	12.22.2020 15:32		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep 6"

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

Lab Sample Id: 681229-009 Date Collected: 12.15.2020 09:45 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000750**	0.00200	0.000408	mg/L	12.22.2020 16:53	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 16:53	U	1
Ethylbenzene	100-41-4	**0.00166**	0.00200	0.000657	mg/L	12.22.2020 16:53	J	1
m_p-Xylenes	179601-23-1	**0.00163**	0.00400	0.000630	mg/L	12.22.2020 16:53	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 16:53	U	1
Xylenes, Total	1330-20-7	**0.00163**		0.000630	mg/L	12.22.2020 16:53	J	
Total BTEX		**0.004040**		0.0003670	mg/L	12.22.2020 16:53		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

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

Lab Sample Id: 681229-010 Date Collected: 12.15.2020 11:00 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000650**	0.00200	0.000408	mg/L	12.22.2020 17:13	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 17:13	U	1
Ethylbenzene	100-41-4	**0.00134**	0.00200	0.000657	mg/L	12.22.2020 17:13	J	1
m_p-Xylenes	179601-23-1	**0.00131**	0.00400	0.000630	mg/L	12.22.2020 17:13	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 17:13	U	1
Xylenes, Total	1330-20-7	**0.00131**		0.000630	mg/L	12.22.2020 17:13	J	
Total BTEX		**0.003300**		0.0003670	mg/L	12.22.2020 17:13		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	94	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM

Lovington Deep 6"

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

Lab Sample Id: 681229-011 Date Collected: 12.15.2020 11:40 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000590**	0.00200	0.000408	mg/L	12.22.2020 18:35	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 18:35	U	1
Ethylbenzene	100-41-4	**0.00116**	0.00200	0.000657	mg/L	12.22.2020 18:35	J	1
m_p-Xylenes	179601-23-1	**0.00132**	0.00400	0.000630	mg/L	12.22.2020 18:35	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 18:35	U	1
Xylenes, Total	1330-20-7	**0.00132**		0.000630	mg/L	12.22.2020 18:35	J	
Total BTEX		**0.003070**		0.0003670	mg/L	12.22.2020 18:35		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	95	70 - 130	%		
4-Bromofluorobenzene	102	70 - 130	%		

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

Lab Sample Id: 681229-012 Date Collected: 12.15.2020 13:50 Date Received: 12.15.2020 16:20

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

Analyst: KTL % Moist:

Seq Number: 3145802 Date Prep: 12.22.2020 10:30 Tech: KTL

Subcontractor: SUB: T104704400-20-21 Prep seq: 7717735

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000590**	0.00200	0.000408	mg/L	12.22.2020 18:56	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 18:56	U	1
Ethylbenzene	100-41-4	**0.00185**	0.00200	0.000657	mg/L	12.22.2020 18:56	J	1
m_p-Xylenes	179601-23-1	**0.00176**	0.00400	0.000630	mg/L	12.22.2020 18:56	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 18:56	U	1
Xylenes, Total	1330-20-7	**0.00176**		0.000630	mg/L	12.22.2020 18:56	J	
Total BTEX		**0.004200**		0.0003670	mg/L	12.22.2020 18:56		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		

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Talon LPE-Artesia, Artesia, NM
Lovington Deep 6"

Sample Id:	**MW-15**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	681229-013	Date Collected:	12.15.2020 12:50	Date Received:	12.15.2020 16:20
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:			
Seq Number:	3145802	Date Prep:	12.22.2020 10:30	Tech:	KTL
Subcontractor:	SUB: T104704400-20-21	Prep seq:	7717735		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	**0.000810**	0.00200	0.000408	mg/L	12.22.2020 19:16	J	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 19:16	U	1
Ethylbenzene	100-41-4	**0.00257**	0.00200	0.000657	mg/L	12.22.2020 19:16		1
m_p-Xylenes	179601-23-1	**0.00121**	0.00400	0.000630	mg/L	12.22.2020 19:16	J	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 19:16	U	1
Xylenes, Total	1330-20-7	**0.00121**		0.000630	mg/L	12.22.2020 19:16	J	
Total BTEX		**0.004590**		0.0003670	mg/L	12.22.2020 19:16		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	108	70 - 130	%		

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Certificate of Analytical Results
681229

Talon LPE-Artesia, Artesia, NM
Lovington Deep 6"

Sample Id:	**7717735-1-BLK**	Matrix:	Water	Sample Depth:	
Lab Sample Id:	7717735-1-BLK	Date Collected:		Date Received:	
Analytical Method:	BTEX by EPA 8021			Prep Method:	5030B
Analyst:	KTL	% Moist:			
Seq Number:	3145802	Date Prep:	12.22.2020 10:30	Tech:	KTL
Subcontractor:	SUB: T104704400-20-21	Prep seq:	7717735		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000408	0.00200	0.000408	mg/L	12.22.2020 12:47	U	1
Toluene	108-88-3	<0.000367	0.00200	0.000367	mg/L	12.22.2020 12:47	U	1
Ethylbenzene	100-41-4	<0.000657	0.00200	0.000657	mg/L	12.22.2020 12:47	U	1
m_p-Xylenes	179601-23-1	<0.000630	0.00400	0.000630	mg/L	12.22.2020 12:47	U	1
o-Xylene	95-47-6	<0.000642	0.00200	0.000642	mg/L	12.22.2020 12:47	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	93	70 - 130	%		
4-Bromofluorobenzene	107	70 - 130	%		

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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. **ND** Not Detected.

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

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Form 2 - Surrogate Recoveries

Project Name: Lovington Deep 6"

Report Date: 12232020

Work Orders : 681229 **Project ID:** 700376.051.54

Lab Batch #: 3145802 **Sample:** 7717735-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.22.2020 10:48 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3145802 **Sample:** 7717735-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.22.2020 11:08 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	70-130	
4-Bromofluorobenzene	0.0303	0.0300	101	70-130	

Lab Batch #: 3145802 **Sample:** 681229-001 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.22.2020 11:29 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3145802 **Sample:** 681229-001 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.22.2020 11:49 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0348	0.0300	116	70-130	
4-Bromofluorobenzene	0.0332	0.0300	111	70-130	

Lab Batch #: 3145802 **Sample:** 7717735-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 12.22.2020 12:47 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0321	0.0300	107	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.

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BS / BSD Recoveries

Project Name: Lovington Deep 6"

Work Order #: 681229 **Project ID:** 700376.051.54

Analyst: KTL **Date Prepared:** 12.22.2020 **Date Analyzed:** 12.22.2020

Lab Batch ID: 3145802 **Sample:** 7717735-1-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	0.0921	92	0.100	0.0926	93	1	70-130	25	
Toluene	<0.000367	0.100	0.0899	90	0.100	0.0899	90	0	70-130	25	
Ethylbenzene	<0.000657	0.100	0.0937	94	0.100	0.0936	94	0	70-130	25	
m_p-Xylenes	<0.000630	0.200	0.192	96	0.200	0.192	96	0	70-130	25	
o-Xylene	<0.000642	0.100	0.0950	95	0.100	0.0953	95	0	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

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Form 3 - MS / MSD Recoveries

Project Name: Lovington Deep 6"

Report Date: 12232020
Project ID: 700376.051.54

Work Order # : 681229
Lab Batch ID: 3145802
QC- Sample ID: 681229-001 S
Batch #: 1
Matrix: Water
Date Analyzed: 12.22.2020
Date Prepared: 12.22.2020
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	0.336	0.100	0.525	189	0.100	0.518	182	1	70-130	25	X
Toluene	0.00208	0.100	0.0992	97	0.100	0.0989	97	0	70-130	25	
Ethylbenzene	0.00131	0.100	0.106	105	0.100	0.105	104	1	70-130	25	
m_p-Xylenes	0.00116	0.200	0.205	102	0.200	0.208	103	1	70-130	25	
o-Xylene	<0.000642	0.100	0.102	102	0.100	0.103	103	1	70-130	25	

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

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

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 681229

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Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon lpe	Company Name:	Pipeline
Address:	408 Texas st	Address:	Attn: Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS #2002-10312
Phone:	575-441-4835	Email:	dadkins@talonlpe.com

Work Order Comments

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

Project Name:	Lovington Deep 6"	Turn Around	
Project Number:	700376.051.54	Routine ☒	
Project Location	Hobbs, NM	Rush:	
Sampler's Name:	Roy Bell	Due Date:	
PO #:	SRS#2002-10312	Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	1.0/0.8	Temp Blank: (Yes) No	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	TNM007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	39

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX 8021
	MW-19	GW	12-14-20	10:30	N/A	3		X
	MW-18			10:00				
	MW-20			11:00				
	MW-3			1:00				
	MW-4			2:00				
	MW-1			3:10				
	MW-11		12-15-20	8:30				
	MW-12			9:05				
	MW-9			9:45				
	MW-5			11:00				

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

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
Roy Bell		12/15/20 16:20	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Chain of Custody

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

Work Order No: 681229

Project Manager:	David Adkins	Bill to: (if different)	Plains All American
Company Name:	Talon LPE	Company Name:	Pipeline
Address:	408 Texas St.	Address:	Attn: Camille Bryant
City, State ZIP:	Artesia, NM 88210	City, State ZIP:	SRS# 2002-10312
Phone:	575-441-4835	Email:	dadkins@talonlpe.com

Work Order Comments

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

Project Name:	Lovington Deep 6"	Turn Around	
Project Number:	700376.051.54	Routine	☒
Project Location	Hobbs, NM	Rush:	
Sampler's Name:	Roy Bell	Due Date:	
PO #:	SRS# 2002-10312	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 8021	Sample Comments
	MW-8	GW	12-15-20	11:40	N/A	3		X	Email Analyticals to: Camille Bryant
	MW-16	"	"	1:50	"	"		X	
	MW-15	"	"	12:50	"	"		X	

ANALYSIS REQUEST

Preservative Codes

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

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

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

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

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

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Roy Bell		12/15/20 16:20	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number : 75072

Date/Time: 12.16.2020
Created by: Cloe Clifton
Please send report to: Jessica Kramer
Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street
Lab# To: **Midland**
Air Bill No.:
E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
681229-001	W	MW-19	12.14.2020 10:30	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-002	W	MW-18	12.14.2020 10:00	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-003	W	MW-20	12.14.2020 11:00	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-004	W	MW-3	12.14.2020 13:00	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-005	W	MW-4	12.14.2020 14:00	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-006	W	MW-1	12.14.2020 15:10	SW8021B	BTEX by EPA 8021	12.21.2020	12.28.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-007	W	MW-11	12.15.2020 08:30	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-008	W	MW-12	12.15.2020 09:05	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-009	W	MW-9	12.15.2020 09:45	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-010	W	MW-5	12.15.2020 11:00	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-011	W	MW-8	12.15.2020 11:40	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-012	W	MW-16	12.15.2020 13:50	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	
681229-013	W	MW-15	12.15.2020 12:50	SW8021B	BTEX by EPA 8021	12.21.2020	12.29.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton
Cloe Clifton

Date Relinquished: 12.16.2020

Received By: Jessica Kramer
Jessica Kramer

Date Received: 12.21.2020

Cooler Temperature: 2.2

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 75072

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

Sent By: Cloe Clifton **Date Sent:** 12.16.2020 04.35 PM

Received By: Jessica Kramer **Date Received:** 12.21.2020 12.04 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#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: Jessica Kramer Date: 12.21.2020

Jessica Kramer

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 12.15.2020 04.20.00 PM

Work Order #: 681229

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)?	.8	
#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**	Samples sent 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: Cloe Clifton Date: 12.16.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 12.17.2020

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 23283

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 23283
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 ANNUAL GROUNDWATER MONITORING REPORT: Content satisfactory Contractor recommendations approved by OCD and are as follows; 1. Continue monthly MDPE events 2. Perform quarterly groundwater monitoring events in accordance with NMOCD directives 3. OCD approves discontinuing PAH analysis from MW-4, MW-10, MW-12, MW-18, MW-19, and MW-20 4. Submit annual report to OCD no later than March 31,2022.	1/11/2022