LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

April 26, 2019

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

RE: Closure Request
Hat Mesa 32 State 001
Remediation Permit Number 1RP-3715
Lea County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing excavation of impacted soil and confirmation soil sampling activities at the Hat Mesa 32 State 001 (Site) located in Unit D, Section 32, Township 20 South, Range 33 East, in Lea County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil after a nipple on the chemical injection line check valve failed, causing the release of 5 barrels (bbls) of oil onto the surface of the well pad. The release was discovered on June 26, 2015. A vacuum truck was used to recover approximately 3 bbls of oil, and a backhoe was used to scrape the saturated soil for disposal.

The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on July 06, 2015, and was assigned Remediation Permit (RP) Number 1RP-3715 (Attachment 1) on July 8, 2015. Although the release occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. The release is included in the *Compliance Agreement for Remediation for Historical Releases* (Compliance Agreement) between XTO and the NMOCD effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) dated August 14, 2018. This release is categorized as a Tier II site in the Compliance Agreement, meaning remediation of the release began prior to August 14, 2018, the effective date of 19.15.29 NMAC, but the closure report is pending. Based on the excavation activities and results of the confirmation soil sampling events, XTO is requesting no further action for this release.

BACKGROUND

According to Section 12 of 19.15.29. NMAC, LTE applied Table 1, the *Closure Criteria for Soils Impacted by a Release*. Depth to groundwater at the Site is estimated to be less than 50 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is United States Geological Survey well 323202103425201, located approximately 1.35 miles west of the Site, with a depth to groundwater of 41 feet and a total depth of 65 feet. The water well is approximately 19 feet lower in elevation than the Site. The closest surface water to the Site is an unnamed dry wash located approximately 7,020 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 100 mg/kg total petroleum hydrocarbons (TPH); and 600 mg/kg chloride.

INITIAL EXCAVATION AND DELINEATION ACTIVITIES

On October 10, 2018, LTE personnel inspected the Site to evaluate the release extent. Surface hydrocarbon staining was observed in the release area near the wellhead. On October 29, 2018, LTE personnel returned to the Site to oversee excavation of impacted soil as indicated by field screening and visual surface staining. To delineate hydrocarbon and chloride impacts to soil, LTE screened soil using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Impacted soil was excavated to a depth of 2 feet bgs from the surface stained area east of the wellhead. Following removal of impacted soil, LTE collected a 5-point composite soil sample (FS01) from the floor of the excavation. The 5-point composite sample was collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation measured approximately 150 square feet in area with a depth of 2-feet bgs. The soil sample location and horizontal extent of the excavation are presented on Figure 2.

Since little information regarding the historical release is available, delineation potholes were advanced in every direction around the expected release point on October 29, 2018, while on site for initial excavation activities. Potholes were advanced at five locations (PH01 through PH05) to a depth of 4-feet bgs within the potential release area to confirm the lateral and vertical extent of soil impacts. Pothole PH01 was advanced through the base of the excavation below floor sample location FS01. Soil was field screened at 1-foot intervals in each pothole using a PID and Hach® chloride QuanTab® test strips. Two soil samples from pothole PH01 and four soil samples from each pothole PH02 through PH05 were collected for laboratory analysis based on field screening results. Soil samples were submitted from pothole PH01 from depths of 3 feet and 4 feet bgs. Soil samples were submitted from potholes PH02 through PH05 from

depths of 1 foot bgs, 2 feet bgs, 3 feet bgs, and 4 feet bgs. The pothole soil sample locations are presented on Figure 3. The soil sample logs are included as Attachment 2.

The excavation and pothole soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories, Inc. (Xenco) in Midland, Texas, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

Laboratory analytical results for excavation floor sample FS01 and pothole soil samples collected from potholes PH01, PH02, PH03, and PH04 indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Laboratory analytical results for pothole soil sample PH05 collected at 1 foot bgs indicated that chloride concentrations exceeded the NMOCD Table 1 closure criteria. Laboratory analytical results are presented on Figure 2 and Figure 3 and summarized in Table 1, and the laboratory analytical reports are included in Attachment 3. Based on the soil sample analytical results from pothole PH05, further excavation of impacted soil was required.

EXCAVATION ACTIVITIES

On January 30, 2019, LTE personnel returned to the Site to oversee excavation of impacted soil as indicated by the soil sample laboratory analytical results from pothole PH05. Excavation activities commenced on January 30, 2018, and concluded on February 6, 2019. Impacted soil was excavated from the release area to a depth 1.5 feet to 3 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples from the floor and sidewalls of the excavation. Composite soil samples FS02 through FS06 were collected from the floor of the excavation and composite soil samples SW01 through SW04 and SW06 through SW08 were collected from the sidewalls of the excavation. An additional composite sidewall sample (SW05) was collected from the initial October 29, 2018, excavation to confirm that the impacted soil had been removed. The soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Midland, Texas. The soil sample locations and depths are presented on Figure 4.

The second excavation measured approximately 1,202 square feet in area with a depth of 1.5 feet to 3 feet bgs. The horizontal extent of the excavation is illustrated on Figure 4. Approximately 103 cubic yards of impacted soil were removed from the combined excavations. The impacted soil was transported and properly disposed of at Lea Land landfill facility in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results exceeded the NMOCD Table 1 closure criteria for chloride in pothole soil sample PH05. The impacted soil was excavated and laboratory analytical results for excavation floor samples FS02A through FS06 and excavation sidewall samples SW02 and SW05 through SW08 collected from the final excavation extents indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Floor sample FS02 initially exceeded the NMOCD Table 1 closure criteria for TPH; additional soil was removed from the floor of the excavation and subsequent confirmation floor sample FS02A was compliant the NMOCD Table 1 closure criteria. Sidewall samples SW01, SW03, and SW04 initially exceeded the NMOCD Table 1 closure criteria for TPH; additional soil was removed from the sidewalls of the excavation and subsequent confirmation sidewall samples SW06, SW07, and SW08 were compliant the NMOCD Table 1 closure criteria. Based on the laboratory analytical results, and no further excavation was required. Laboratory analytical results are presented on Figure 4 and summarized in Table 1, and the complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

The impacted soil was excavated from the release area and laboratory analytical results for the excavation confirmation soil samples collected from the final excavation extents indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for this release. Upon approval of the no further action request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included as Attachment 1. A photographic log of the Site is included as Attachment 4.

If you have any questions or comments, please do not hesitate to contact Ms. Adrian Baker at (432) 887-1255 or abaker@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Adrian Baker
Project Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Ryan Mann, State Land Office

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Location
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (1RP-3715)
Attachment 2	Soil Sample Logs
Attachment 3	Laboratory Analytical Reports
Attachment 4	Photographic Log

FIGURES

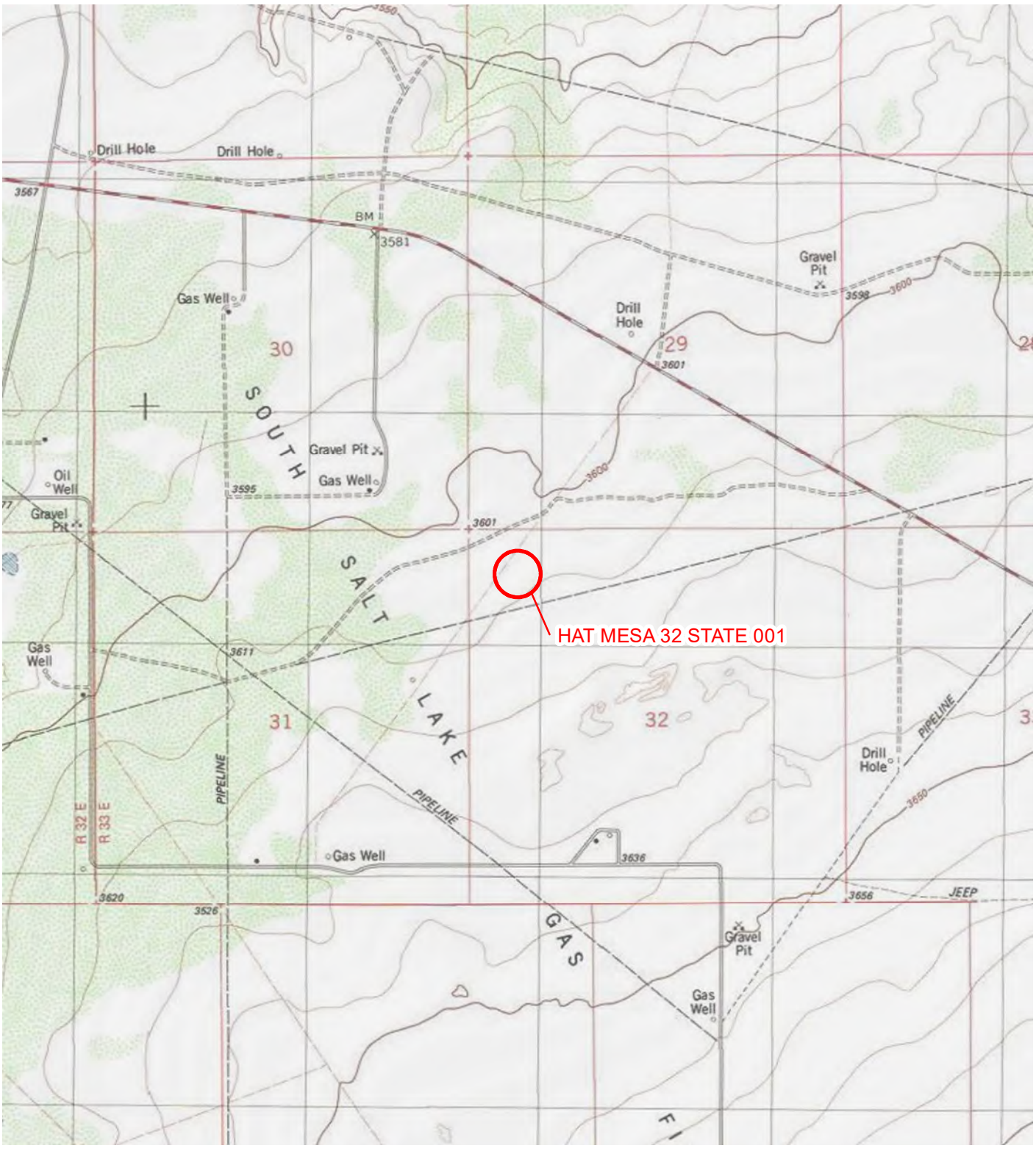


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

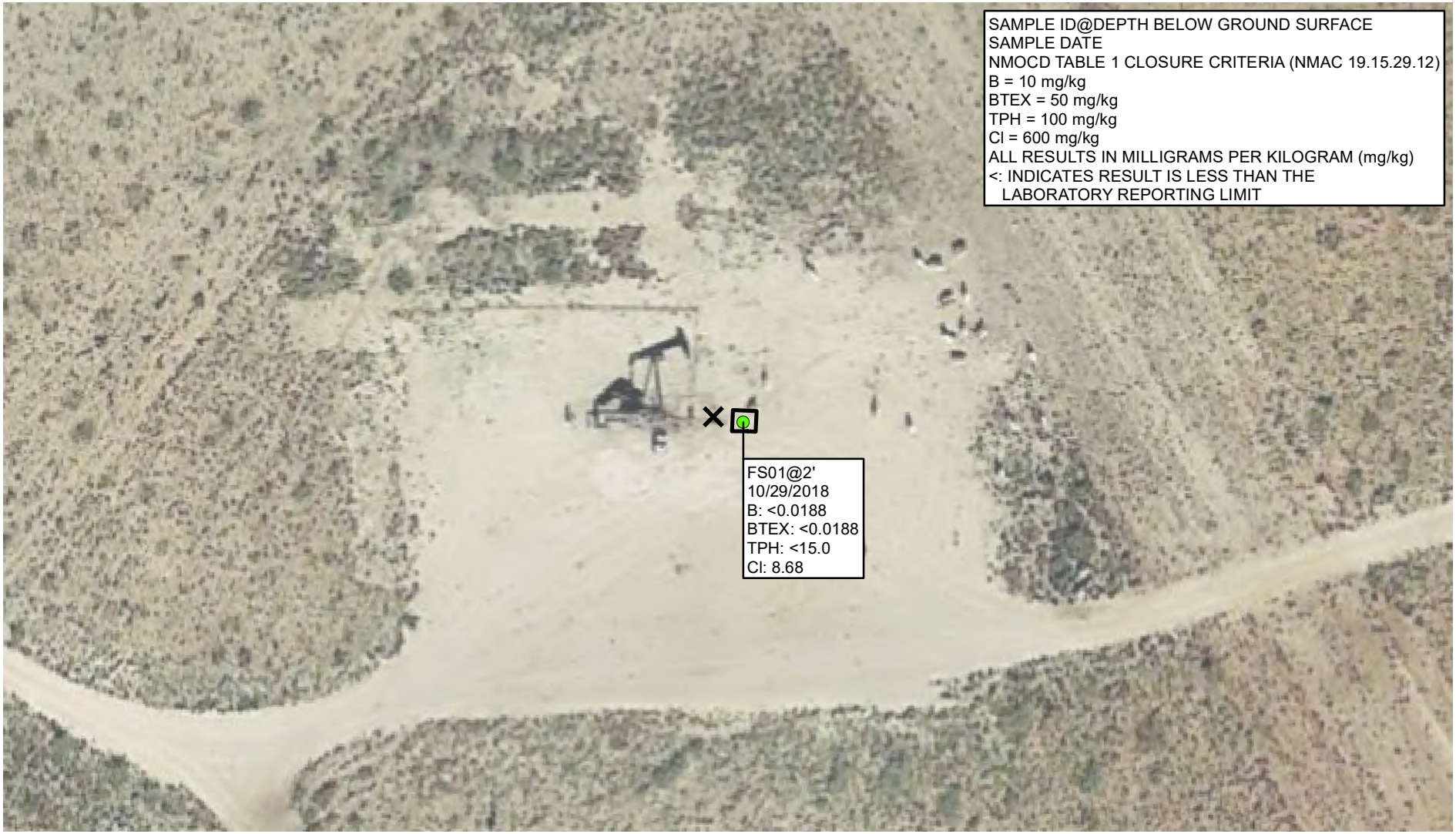
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 1RP-3715

FIGURE 1
SITE LOCATION MAP
HAT MESA 32 STATE 001
UNIT D SEC 32 T20S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918063_HAT MESA 32 STATE #1\012918063_FIG01_SL_2018.mxd



LEGEND

- RELEASE LOCATION
- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 1RP-3715

FIGURE 2
SOIL SAMPLE LOCATION
HAT MESA 32 STATE 001
UNIT D SEC 32 T20S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918063_HAT MESA 32 STATE #1\012918063_FIG02_SS LOC_2018_3715.mxd

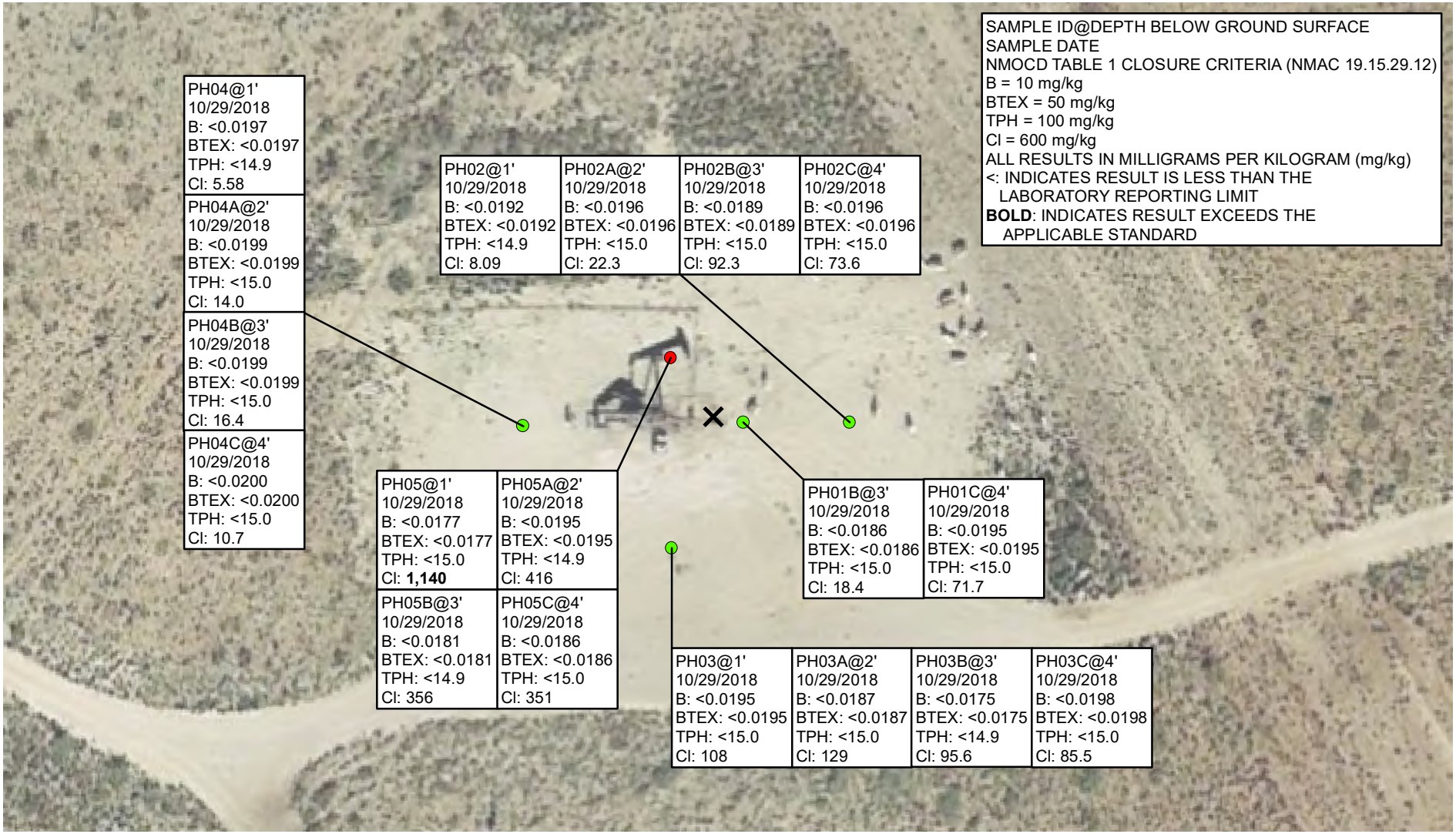


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE STANDARDS
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS

0 60 120
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 1RP-3715

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
HAT MESA 32 STATE 001
UNIT D SEC 32 T20S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918063_HAT MESA 32 STATE #1\012918063_FIG03_DELINEATION SS_2018_3715.mxd

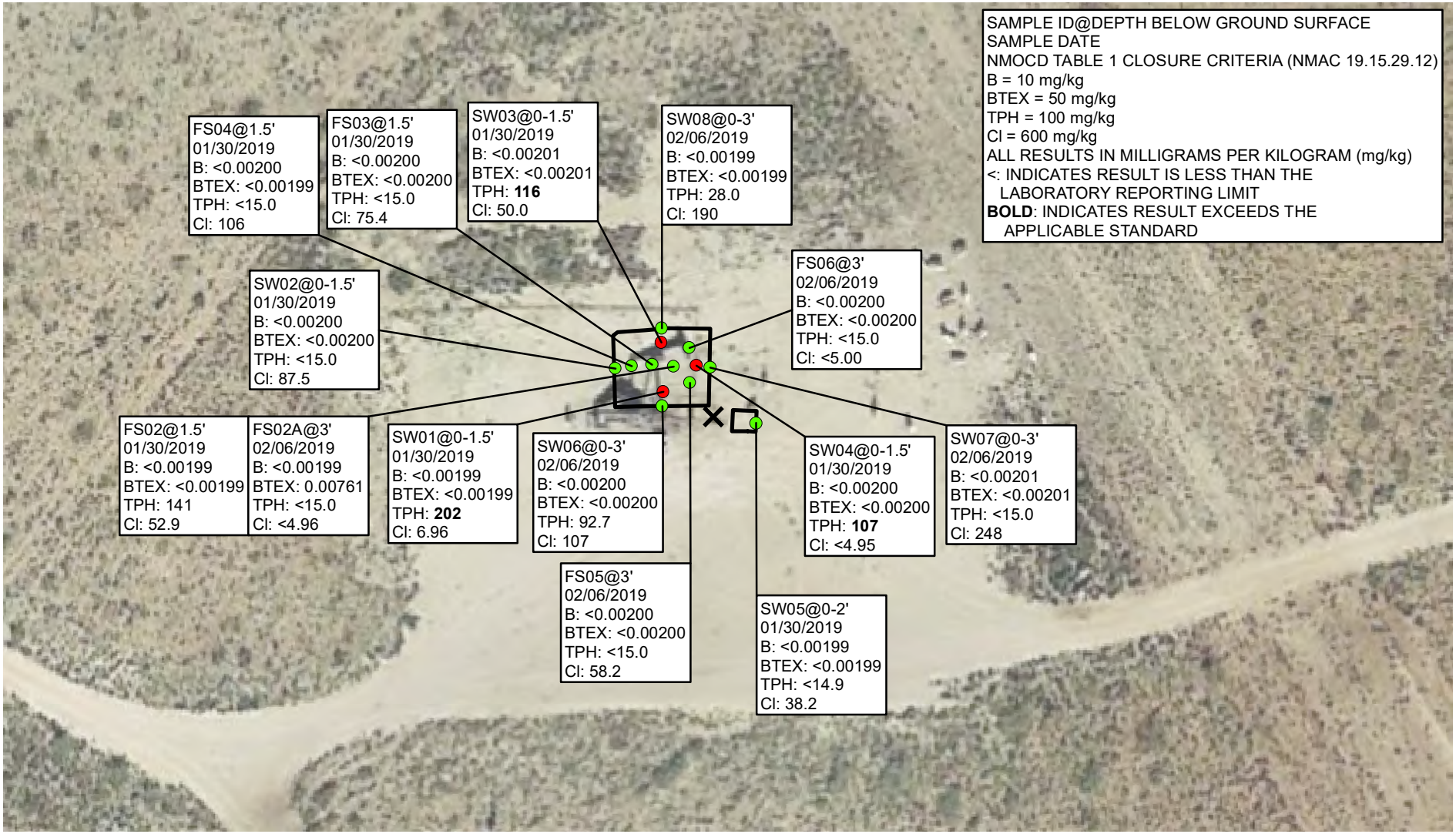


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- EXCAVATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE STANDARDS
- EXCAVATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS
- EXCAVATION EXTENT

0 60 120
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 1RP-3715

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
HAT MESA 32 STATE 001
UNIT D SEC 32 T20S R33E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918063_HAT MESA 32 STATE #1\012918063_FIG04_EXCAVATION SS_2018_3715.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

HAT MESA 32 STATE 001
REMEDIATION PERMIT NUMBER 1RP-3715
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS01	2	10/29/2018	<0.0188	<0.0188	<0.0188	<0.0188	<0.0188	<15.0	<15.0	<15.0	<15.0	<15.0	8.68
PH01B	3	10/29/2018	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<15.0	<15.0	<15.0	<15.0	<15.0	18.4
PH01C	4	10/29/2018	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<15.0	<15.0	<15.0	<15.0	<15.0	71.7
PH02	1	10/29/2018	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<14.9	<14.9	<14.9	<14.9	<14.9	8.09
PH02A	2	10/29/2018	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<15.0	<15.0	<15.0	<15.0	<15.0	22.3
PH02B	3	10/29/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<15.0	<15.0	<15.0	<15.0	<15.0	92.3
PH02C	4	10/29/2018	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<15.0	<15.0	<15.0	<15.0	<15.0	73.6
PH03	1	10/29/2018	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<15.0	<15.0	<15.0	<15.0	<15.0	108
PH03A	2	10/29/2018	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<15.0	<15.0	<15.0	<15.0	<15.0	129
PH03B	3	10/29/2018	<0.0175	<0.0175	<0.0175	<0.0175	<0.0175	<14.9	<14.9	<14.9	<14.9	<14.9	95.6
PH03C	4	10/29/2018	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<15.0	<15.0	<15.0	<15.0	<15.0	85.5
PH04	1	10/29/2018	<0.0197	<0.0197	<0.0197	<0.0197	<0.0197	<14.9	<14.9	<14.9	<14.9	<14.9	5.58
PH04A	2	10/29/2018	<0.0199	<0.0199	<0.0199	<0.0199	<0.0199	<15.0	<15.0	<15.0	<15.0	<15.0	14.0
PH04B	3	10/29/2018	<0.0199	<0.0199	<0.0199	<0.0199	<0.0199	<15.0	<15.0	<15.0	<15.0	<15.0	16.4
PH04C	4	10/29/2018	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<15.0	<15.0	<15.0	<15.0	<15.0	10.7
PH05	1	10/29/2018	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<15.0	<15.0	<15.0	<15.0	<15.0	**1,140**
PH05A	2	10/29/2018	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<14.9	<14.9	<14.9	<14.9	<14.9	416
PH05B	3	10/29/2018	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<14.9	<14.9	<14.9	<14.9	<14.9	356
PH05C	4	10/29/2018	<0.0186	<0.0186	<0.0186	<0.0186	<0.0186	<15.0	<15.0	<15.0	<15.0	<15.0	351
FS02	1.5	01/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	103	38.3	103	**141**	52.9
FS03	1.5	01/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	75.4
FS04	1.5	01/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	106
SW01	0 - 1.5	01/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	165	37.0	165	**202**	6.96
SW02	0 - 1.5	01/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	87.5
SW03	0 - 1.5	01/30/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	84.7	31.6	84.7	**116**	50.0
SW04	0 - 1.5	01/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	75.7	31.7	75.7	**107**	<4.95
SW05	0 - 2	01/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	38.2
FS02A	3	02/06/2019	<0.00199	<0.00199	<0.00199	0.00761	0.00761	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
FS05	3	02/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	58.2

TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS

HAT MESA 32 STATE 001
REMEDIATION PERMIT NUMBER 1RP-3715
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS06	3	02/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SW06	0 - 3	02/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	71.3	21.4	71.3	92.7	107
SW07	0 - 3	02/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	248
SW08	0 - 3	02/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	28.0	<15.0	28.0	28.0	190
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
NMAC - New Mexico Administrative Code

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (1RP-3715)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329 (1-432-214-3704 Cell)
Facility Name: Hat Mesa 32 State 001	Facility Type: Exploration and Production

Surface Owner: State	Mineral Owner:	API No. 3002534704

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	32	20s	33e	660		660		Lea

Latitude 32.535053 **Longitude** 103.691862

NATURE OF RELEASE

Type of Release: Crude oil	Volume of Release 5 barrels	Volume Recovered 3 barrels
Source of Release: Equipment failure at wellhead (1/4 inch nipple)	Date and Hour of Occurrence 6-26-15 @ 2:00pm	Date and Hour of Discovery 6-26-15 @ 3:15pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By OCD District 1 at 1:29 pm, Jul 08, 2015

Describe Cause of Problem and Remedial Action Taken.* BOPCO EHS was notified of a release that occurred at the Hat Mesa 32 State 001. The release occurred from the failure of a ¼ inch nipple at the top of the check valve associated with the chemical injection line. The failed nipple caused the release of five barrels of oil to the ground surface.

Describe Area Affected and Cleanup Action Taken.* A vacuum truck was utilized to recover three barrels of oil, a steam cleaner was used to wash down equipment. A backhoe was dispatched to the location the following day to conduct an initial scrape of the saturated soil. Samples have been collected and sent to Cardinal Labs for analysis.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Bradley Blevins	OIL CONSERVATION DIVISION
Printed Name: Bradley Blevins	Approved by Environmental Specialist:
Title: Assistant Remediation Foreman	Approval Date: 07/08/2015 Expiration Date: 10/08/2015
E-mail Address: bblevins@basspet.com	Conditions of Approval: Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation required. Attached ☐ 260737 IRP-3715
Date: 7-6-15 Phone: 432-214-3704	

* Attach Additional Sheets If Necessary

nKJ1518948690
pKJ1518948840

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	1RP-3715
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.535053 Longitude -103.691862
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Hat Mesa 32 State 001	Site Type Exploration and Production
Date Release Discovered 6/26/2015	API# *(if applicable)* 30-025-34704

Unit Letter	Section	Township	Range	County
D	32	20S	33E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 5 barrels	Volume Recovered (bbls) 3 barrels
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release occurred from the failure of a ¼ inch nipple at the top of the check valve associated with the chemical injection line. The failed nipple caused the release of five barrels of oil to the ground surface. A vacuum truck was utilized to recover 3 barrels of oil, a steam cleaner was used to wash down equipment. A backhoe was dispatched to the location the following day to conduct an initial scrape of saturated soil.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-3715
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 05/02/2019

email: Kyle_Littrell @xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-3715
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-3715
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell

Title: SH&E Coordinator

Signature:

Date: 05/02/2019

email: Kyle_Littrell @xtoenergy.com

Telephone: 432-221-7331

OCD Only

Received by: _____

Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-3715
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 05/02/2019

email: Kyle.Littrell @xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Brittany Hall Date: 3/15/2023

Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT 2: SOIL SAMPLE LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date: ~~1/30/19~~
PH01	10/29/18
Project Name: HAT MESA 32 STATE #1	RP Number: 1RP-3715

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BEN BELILL	Method: backhoe
Lat/Long: 32.535053,-103.691862	Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO.
Hole Diameter: N/A	Total Depth: 4'

Comment All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			Open Excavation
					1			
D	<112	2.0	N	FSO 1 ~~PH01B~~	2	2'		
D							Caliche	CALICHE, light brown-tan, moderately-well consolidated, dry, no odor, trace sand.
D	<112	0.1	N	PH01B	3	3'		
D	<112	0.5	N	PH01C	4	4'		
								End of Pothole @ 4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: PH02	Date: ~~1/30/19~~ 10/29/18
Project Name: HAT MESA 32 STATE #1	RP Number: 1RP-3715
Logged By: BEN BELILL	Method: Backhoe
Hole Diameter: N/A	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: 32.535053,-103.691862
Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO.
Comment: All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		(SM)	SAND, brown - light brown, moist, m. - f., poorly graded, some silty, fill, no odor.
M	<112	1.0	N	PH02	1	1'		
D	<112	1.0	N	PH02A	2	2'	Caliche	CALICHE, light brown - tan, moderately - well consolidated, dry, no odor
D	<112	2.0	N	PH02B	3	3'		
D	<112	2.1	N	PH02C	4	4'		End of pothole @ 4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date: ~~1/30/19~~ BB 10/29/18
Project Name: HAT MESA 32 STATE #1	RP Number: 1RP-3715
Logged By: BEN BELILL	Method: Backhoe
Hole Diameter: N/A	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: 32.535053,-103.691862
Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO.

Comment All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		(SM)	silty SAND, brown-light brown, m.-f., poorly graded, fill, no odor
M	<112	1.3	N	PH03	1	1'		
D	<112	1.6	N	PH03A	2	2'	Caliche	CALICHE, light brown-tan, moderately-well consolidated, dry, no odor
D	<112	1.4	N	PH03B	3	3'		
D	<112	1.0	N	PH03C	4	4'		
					5			End of Pothole @ 4'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: PH04	Date: ~~4/30/19~~ 10/29/18
Project Name: HAT MESA 32 STATE #1	RP Number: 1RP-3715

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: 32.535053,-103.691862	Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO.	Logged By: BEN BELILL	Method: Backhoe
		Hole Diameter: N/A	Total Depth: 4'

Comment: All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		(SM)	silty SAND, brown - light brown, m. - f., poorly graded, no odor, fill.
M	<112	0.3	N	PH04	1	1'		
D	<112	0.4	N	PH04A	2	2'	Caliche	CALICHE, light brown - tan, moderately - well consolidated, dry, no odor.
D	<112	0.5	N	PH04B	3	3'		
D	<112	0.2	N	PH04C	4	4'		End of Pothole @ 4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: PH05	Date: 10/29/18
Project Name: Hat Mesa 32 State #1	RP Number: 1RP-3715

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Ben Belill	Method: Backhoe
Lat/Long: 32.535053, -103.641862	Field Screening: Chlorides, TPH, BTEX, GRO, MRO, and DRO
Hole Diameter: NA	Total Depth: 4'

Comments: All chloride test results include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		(SM)	silty SAND, brown - light brown, m. - f. poorly graded, firm, no odor
M	1184	0.4	N	PH05	1	1'		
D	467	0.8	N	PH05A	2	2'	caliche	CALICHE, light brown - tan, moderately - well consolidated, dry, no odor.
D	258	0.7	N	PH05B	3	3'		
D	258	0.6	N	PH05C	4	4'		
					5			↑ End of pothole @ 4'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 604075

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Hat Mesa 32 State 001

Hat Mesa 32 State 001

16-JAN-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

16-JAN-19

Project Manager: **Adrian Baker**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **604075**
Hat Mesa 32 State 001
Project Address: Carlsbad, NM

Adrian Baker:

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) 604075. 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. 604075 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	10-29-18 10:00	2 ft	604075-001
PH01B	S	10-29-18 10:05	3 ft	604075-002
PH01C	S	10-29-18 10:10	4 ft	604075-003
PH02	S	10-29-18 10:25	1 ft	604075-004
PH02A	S	10-29-18 10:30	2 ft	604075-005
PH02B	S	10-29-18 10:35	3 ft	604075-006
PH02C	S	10-29-18 10:40	4 ft	604075-007
PH03	S	10-29-18 10:55	1 ft	604075-008
PH03A	S	10-29-18 11:00	2 ft	604075-009
PH03B	S	10-29-18 11:05	3 ft	604075-010
PH03C	S	10-29-18 11:10	4 ft	604075-011
PH04	S	10-29-18 12:00	1 ft	604075-012
PH04A	S	10-29-18 12:05	2 ft	604075-013
PH04B	S	10-29-18 12:10	3 ft	604075-014
PH04C	S	10-29-18 12:15	4 ft	604075-015
PH05	S	10-29-18 12:30	1 ft	604075-016
PH05A	S	10-29-18 12:35	2 ft	604075-017
PH05B	S	10-29-18 12:40	3 ft	604075-018
PH05C	S	10-29-18 12:45	4 ft	604075-019

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Hat Mesa 32 State 001

Project ID: *Hat Mesa 32 State 001*
Work Order Number(s): *604075*

Report Date: *16-JAN-19*
Date Received: *10/31/2018*

Sample receipt non conformances and comments:

Per clients email, corrected sample name. NEW VERSION GENERATED. JKR 01/19/19
PH01A TO FS01

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3068331 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 604073-001 S.
Surrogate a,a,a-Trifluorotoluene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 604073-001 S,604075-014,604075-015.

Batch: LBA-3068679 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene, Surrogate a,a,a-Trifluorotoluene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7665564-1-BKS,7665564-1-BLK,604075-018 S,604075-002,604075-006.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 604075

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State 001

Project Id: Hat Mesa 32 State 001
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Wed Oct-31-18 11:00 am
Report Date: 16-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	604075-001		604075-002		604075-003		604075-004		604075-005		604075-006	
	Field Id:	FS01		PH01B		PH01C		PH02		PH02A		PH02B	
	Depth:	2- ft		3- ft		4- ft		1- ft		2- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-18 10:00		Oct-29-18 10:05		Oct-29-18 10:10		Oct-29-18 10:25		Oct-29-18 10:30		Oct-29-18 10:35	
BTEX by EPA 8021B SUB: T104704219-18-18	*Extracted:*	Nov-01-18 14:00		Nov-02-18 12:00		Nov-01-18 14:00		Nov-01-18 14:00		Nov-01-18 14:00		Nov-02-18 12:00	
	Analyzed:	Nov-01-18 19:38		Nov-02-18 18:46		Nov-01-18 20:32		Nov-01-18 20:59		Nov-01-18 21:26		Nov-02-18 19:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
Toluene		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
Ethylbenzene		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
m,p-Xylenes		<0.0375	0.0375	<0.0371	0.0371	<0.0391	0.0391	<0.0383	0.0383	<0.0393	0.0393	<0.0379	0.0379
o-Xylene		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
Total Xylenes		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
Total BTEX		<0.0188	0.0188	<0.0186	0.0186	<0.0195	0.0195	<0.0192	0.0192	<0.0196	0.0196	<0.0189	0.0189
Inorganic Anions by EPA 300	*Extracted:*	Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00	
	Analyzed:	Nov-05-18 17:34		Nov-05-18 17:50		Nov-05-18 17:55		Nov-05-18 18:01		Nov-05-18 18:06		Nov-05-18 18:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8.68	5.02	18.4	5.00	71.7	4.96	8.09	4.99	22.3	4.95	92.3	5.00
TPH by SW8015 Mod	*Extracted:*	Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00	
	Analyzed:	Nov-02-18 11:33		Nov-02-18 12:28		Nov-02-18 12:46		Nov-03-18 02:40		Nov-02-18 13:23		Nov-02-18 13:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 604075

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State 001

Project Id: Hat Mesa 32 State 001
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Wed Oct-31-18 11:00 am
Report Date: 16-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	604075-007		604075-008		604075-009		604075-010		604075-011		604075-012	
	Field Id:	PH02C		PH03		PH03A		PH03B		PH03C		PH04	
	Depth:	4- ft		1- ft		2- ft		3- ft		4- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-18 10:40		Oct-29-18 10:55		Oct-29-18 11:00		Oct-29-18 11:05		Oct-29-18 11:10		Oct-29-18 12:00	
BTEX by EPA 8021B SUB: T104704219-18-18	*Extracted:*	Nov-01-18 14:00		Nov-01-18 14:00		Nov-01-18 14:00		Nov-02-18 12:00		Nov-01-18 14:00		Nov-01-18 14:00	
	Analyzed:	Nov-02-18 00:35		Nov-02-18 01:02		Nov-02-18 01:29		Nov-02-18 19:34		Nov-02-18 02:22		Nov-02-18 02:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
Toluene		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
Ethylbenzene		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
m,p-Xylenes		<0.0393	0.0393	<0.0390	0.0390	<0.0373	0.0373	<0.0350	0.0350	<0.0396	0.0396	<0.0394	0.0394
o-Xylene		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
Total Xylenes		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
Total BTEX		<0.0196	0.0196	<0.0195	0.0195	<0.0187	0.0187	<0.0175	0.0175	<0.0198	0.0198	<0.0197	0.0197
Inorganic Anions by EPA 300	*Extracted:*	Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00	
	Analyzed:	Nov-05-18 18:27		Nov-05-18 18:32		Nov-05-18 18:38		Nov-05-18 18:43		Nov-05-18 18:48		Nov-05-18 19:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		73.6	4.98	108	4.95	129	4.98	95.6	4.99	85.5	4.96	5.58	4.98
TPH by SW8015 Mod	*Extracted:*	Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00	
	Analyzed:	Nov-02-18 14:00		Nov-02-18 14:18		Nov-02-18 14:37		Nov-02-18 14:55		Nov-02-18 15:51		Nov-02-18 16:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 604075

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State 001

Project Id: Hat Mesa 32 State 001
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Wed Oct-31-18 11:00 am
Report Date: 16-JAN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	604075-013		604075-014		604075-015		604075-016		604075-017		604075-018	
	Field Id:	PH04A		PH04B		PH04C		PH05		PH05A		PH05B	
	Depth:	2- ft		3- ft		4- ft		1- ft		2- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-18 12:05		Oct-29-18 12:10		Oct-29-18 12:15		Oct-29-18 12:30		Oct-29-18 12:35		Oct-29-18 12:40	
BTEX by EPA 8021B SUB: T104704219-18-18	*Extracted:*	Nov-01-18 14:00		Nov-01-18 14:00		Nov-01-18 14:00		Nov-02-18 12:00		Nov-02-18 12:00		Nov-02-18 12:00	
	Analyzed:	Nov-02-18 03:16		Nov-02-18 03:43		Nov-02-18 04:10		Nov-02-18 19:58		Nov-02-18 20:22		Nov-02-18 16:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
Toluene		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
Ethylbenzene		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
m,p-Xylenes		<0.0398	0.0398	<0.0398	0.0398	<0.0400	0.0400	<0.0354	0.0354	<0.0390	0.0390	<0.0362	0.0362
o-Xylene		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
Total Xylenes		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
Total BTEX		<0.0199	0.0199	<0.0199	0.0199	<0.0200	0.0200	<0.0177	0.0177	<0.0195	0.0195	<0.0181	0.0181
Inorganic Anions by EPA 300	*Extracted:*	Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00		Nov-05-18 12:00	
	Analyzed:	Nov-05-18 19:10		Nov-05-18 19:25		Nov-05-18 19:31		Nov-05-18 19:36		Nov-05-18 19:41		Nov-05-18 19:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		14.0	4.96	16.4	4.98	10.7	5.00	1140	24.9	416	5.00	356	5.00
TPH by SW8015 Mod	*Extracted:*	Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00		Nov-02-18 09:00	
	Analyzed:	Nov-02-18 16:27		Nov-02-18 16:46		Nov-02-18 17:05		Nov-02-18 17:23		Nov-02-18 17:41		Nov-02-18 18:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 604075

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State 001

Project Id: Hat Mesa 32 State 001
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Wed Oct-31-18 11:00 am
Report Date: 16-JAN-19
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	604075-019						
	Field Id:	PH05C						
	Depth:	4- ft						
	Matrix:	SOIL						
	Sampled:	Oct-29-18 12:45						
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Nov-02-18 12:00						
	Analyzed:	Nov-02-18 20:46						
	Units/RL:	mg/kg	RL					
Benzene		<0.0186	0.0186					
Toluene		<0.0186	0.0186					
Ethylbenzene		<0.0186	0.0186					
m,p-Xylenes		<0.0371	0.0371					
o-Xylene		<0.0186	0.0186					
Total Xylenes		<0.0186	0.0186					
Total BTEX		<0.0186	0.0186					
Inorganic Anions by EPA 300	***Extracted:***	Nov-05-18 12:00						
	Analyzed:	Nov-05-18 19:52						
	Units/RL:	mg/kg	RL					
Chloride		351	4.97					
TPH by SW8015 Mod	***Extracted:***	Nov-02-18 09:00						
	Analyzed:	Nov-02-18 18:18						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0					
Diesel Range Organics (DRO)		<15.0	15.0					
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0					
Total TPH		<15.0	15.0					

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-001	Date Collected:	10.29.18 10.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.68**	5.02	mg/kg	11.05.18 17.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 11.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 11.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 11.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 11.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.02.18 11.33	
o-Terphenyl	84-15-1	97	%	70-135	11.02.18 11.33	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-001	Date Collected:	10.29.18 10.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1
Toluene	108-88-3	<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1
Ethylbenzene	100-41-4	<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1
m,p-Xylenes	179601-23-1	<0.0375	0.0375	mg/kg	11.01.18 19.38	U	1
o-Xylene	95-47-6	<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1
Total Xylenes	1330-20-7	<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1
Total BTEX		<0.0188	0.0188	mg/kg	11.01.18 19.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	68-120	11.01.18 19.38	
a,a,a-Trifluorotoluene	98-08-8	77	%	71-121	11.01.18 19.38	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-002	Date Collected:	10.29.18 10.05	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.4**	5.00	mg/kg	11.05.18 17.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 12.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 12.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 12.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	11.02.18 12.28	
o-Terphenyl	84-15-1	96	%	70-135	11.02.18 12.28	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-002	Date Collected:	10.29.18 10.05	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1
Toluene	108-88-3	<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1
Ethylbenzene	100-41-4	<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1
m,p-Xylenes	179601-23-1	<0.0371	0.0371	mg/kg	11.02.18 18.46	U	1
o-Xylene	95-47-6	<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1
Total Xylenes	1330-20-7	<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1
Total BTEX		<0.0186	0.0186	mg/kg	11.02.18 18.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	135	%	68-120	11.02.18 18.46	**
a,a,a-Trifluorotoluene	98-08-8	143	%	71-121	11.02.18 18.46	**

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH01C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-003	Date Collected:	10.29.18 10.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**71.7**	4.96	mg/kg	11.05.18 17.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 12.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 12.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 12.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 12.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.02.18 12.46	
o-Terphenyl	84-15-1	97	%	70-135	11.02.18 12.46	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH01C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-003	Date Collected:	10.29.18 10.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1
Toluene	108-88-3	<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1
Ethylbenzene	100-41-4	<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1
m,p-Xylenes	179601-23-1	<0.0391	0.0391	mg/kg	11.01.18 20.32	U	1
o-Xylene	95-47-6	<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1
Total Xylenes	1330-20-7	<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1
Total BTEX		<0.0195	0.0195	mg/kg	11.01.18 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	68-120	11.01.18 20.32	
a,a,a-Trifluorotoluene	98-08-8	76	%	71-121	11.01.18 20.32	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-004	Date Collected:	10.29.18 10.25	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.09**	4.99	mg/kg	11.05.18 18.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	11.03.18 02.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	11.03.18 02.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	11.03.18 02.40	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	11.03.18 02.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.03.18 02.40	
o-Terphenyl	84-15-1	96	%	70-135	11.03.18 02.40	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-004	Date Collected:	10.29.18 10.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1
Toluene	108-88-3	<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1
Ethylbenzene	100-41-4	<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1
m,p-Xylenes	179601-23-1	<0.0383	0.0383	mg/kg	11.01.18 20.59	U	1
o-Xylene	95-47-6	<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1
Total Xylenes	1330-20-7	<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1
Total BTEX		<0.0192	0.0192	mg/kg	11.01.18 20.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	68-120	11.01.18 20.59	
a,a,a-Trifluorotoluene	98-08-8	75	%	71-121	11.01.18 20.59	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-005	Date Collected:	10.29.18 10.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.3**	4.95	mg/kg	11.05.18 18.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 13.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 13.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 13.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 13.23	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 13.23	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-005	Date Collected:	10.29.18 10.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	11.01.18 21.26	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1
Total BTEX		<0.0196	0.0196	mg/kg	11.01.18 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	68-120	11.01.18 21.26	
a,a,a-Trifluorotoluene	98-08-8	76	%	71-121	11.01.18 21.26	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-006	Date Collected:	10.29.18 10.35	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**92.3**	5.00	mg/kg	11.05.18 18.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 13.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 13.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 13.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 13.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 13.41	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 13.41	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-006	Date Collected:	10.29.18 10.35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1
m,p-Xylenes	179601-23-1	<0.0379	0.0379	mg/kg	11.02.18 19.10	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1
Total BTEX		<0.0189	0.0189	mg/kg	11.02.18 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	136	%	68-120	11.02.18 19.10	**
a,a,a-Trifluorotoluene	98-08-8	144	%	71-121	11.02.18 19.10	**

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-007	Date Collected:	10.29.18 10.40	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.6**	4.98	mg/kg	11.05.18 18.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 14.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 14.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 14.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 14.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 14.00	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 14.00	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH02C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-007	Date Collected:	10.29.18 10.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	11.02.18 00.35	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1
Total BTEX		<0.0196	0.0196	mg/kg	11.02.18 00.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	11.02.18 00.35	
a,a,a-Trifluorotoluene	98-08-8	73	%	71-121	11.02.18 00.35	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-008	Date Collected:	10.29.18 10.55	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**108**	4.95	mg/kg	11.05.18 18.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 14.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 14.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 14.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 14.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	11.02.18 14.18	
o-Terphenyl	84-15-1	93	%	70-135	11.02.18 14.18	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-008	Date Collected:	10.29.18 10.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1
Toluene	108-88-3	<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1
Ethylbenzene	100-41-4	<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1
m,p-Xylenes	179601-23-1	<0.0390	0.0390	mg/kg	11.02.18 01.02	U	1
o-Xylene	95-47-6	<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1
Total Xylenes	1330-20-7	<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1
Total BTEX		<0.0195	0.0195	mg/kg	11.02.18 01.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	68-120	11.02.18 01.02	
a,a,a-Trifluorotoluene	98-08-8	74	%	71-121	11.02.18 01.02	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-009	Date Collected:	10.29.18 11.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**129**	4.98	mg/kg	11.05.18 18.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 14.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 14.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 14.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 14.37	
o-Terphenyl	84-15-1	94	%	70-135	11.02.18 14.37	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-009	Date Collected:	10.29.18 11.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1
Toluene	108-88-3	<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1
Ethylbenzene	100-41-4	<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1
m,p-Xylenes	179601-23-1	<0.0373	0.0373	mg/kg	11.02.18 01.29	U	1
o-Xylene	95-47-6	<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1
Total Xylenes	1330-20-7	<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1
Total BTEX		<0.0187	0.0187	mg/kg	11.02.18 01.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	68-120	11.02.18 01.29	
a,a,a-Trifluorotoluene	98-08-8	72	%	71-121	11.02.18 01.29	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-010	Date Collected:	10.29.18 11.05	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.6**	4.99	mg/kg	11.05.18 18.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	11.02.18 14.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	11.02.18 14.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	11.02.18 14.55	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	11.02.18 14.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	11.02.18 14.55	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 14.55	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-010	Date Collected:	10.29.18 11.05	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1
Toluene	108-88-3	<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1
Ethylbenzene	100-41-4	<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1
m,p-Xylenes	179601-23-1	<0.0350	0.0350	mg/kg	11.02.18 19.34	U	1
o-Xylene	95-47-6	<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1
Total Xylenes	1330-20-7	<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1
Total BTEX		<0.0175	0.0175	mg/kg	11.02.18 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	68-120	11.02.18 19.34	
a,a,a-Trifluorotoluene	98-08-8	113	%	71-121	11.02.18 19.34	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-011	Date Collected:	10.29.18 11.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**85.5**	4.96	mg/kg	11.05.18 18.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 15.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 15.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 15.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 15.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	11.02.18 15.51	
o-Terphenyl	84-15-1	93	%	70-135	11.02.18 15.51	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH03C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-011	Date Collected:	10.29.18 11.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1
Toluene	108-88-3	<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1
Ethylbenzene	100-41-4	<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1
m,p-Xylenes	179601-23-1	<0.0396	0.0396	mg/kg	11.02.18 02.22	U	1
o-Xylene	95-47-6	<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1
Total Xylenes	1330-20-7	<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1
Total BTEX		<0.0198	0.0198	mg/kg	11.02.18 02.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	68-120	11.02.18 02.22	
a,a,a-Trifluorotoluene	98-08-8	74	%	71-121	11.02.18 02.22	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-012	Date Collected:	10.29.18 12.00	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.58**	4.98	mg/kg	11.05.18 19.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	11.02.18 16.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	11.02.18 16.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	11.02.18 16.09	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	11.02.18 16.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.02.18 16.09	
o-Terphenyl	84-15-1	103	%	70-135	11.02.18 16.09	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-012	Date Collected:	10.29.18 12.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1
Toluene	108-88-3	<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1
Ethylbenzene	100-41-4	<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1
m,p-Xylenes	179601-23-1	<0.0394	0.0394	mg/kg	11.02.18 02.49	U	1
o-Xylene	95-47-6	<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1
Total Xylenes	1330-20-7	<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1
Total BTEX		<0.0197	0.0197	mg/kg	11.02.18 02.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	68-120	11.02.18 02.49	
a,a,a-Trifluorotoluene	98-08-8	73	%	71-121	11.02.18 02.49	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-013	Date Collected:	10.29.18 12.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.0**	4.96	mg/kg	11.05.18 19.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 16.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 16.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 16.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 16.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	11.02.18 16.27	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 16.27	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-013	Date Collected:	10.29.18 12.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1
Ethylbenzene	100-41-4	<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1
m,p-Xylenes	179601-23-1	<0.0398	0.0398	mg/kg	11.02.18 03.16	U	1
o-Xylene	95-47-6	<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1
Total Xylenes	1330-20-7	<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1
Total BTEX		<0.0199	0.0199	mg/kg	11.02.18 03.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	79	%	68-120	11.02.18 03.16	
a,a,a-Trifluorotoluene	98-08-8	71	%	71-121	11.02.18 03.16	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-014	Date Collected:	10.29.18 12.10	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.4**	4.98	mg/kg	11.05.18 19.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 16.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 16.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 16.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 16.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	11.02.18 16.46	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 16.46	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-014	Date Collected:	10.29.18 12.10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1
Ethylbenzene	100-41-4	<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1
m,p-Xylenes	179601-23-1	<0.0398	0.0398	mg/kg	11.02.18 03.43	U	1
o-Xylene	95-47-6	<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1
Total Xylenes	1330-20-7	<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1
Total BTEX		<0.0199	0.0199	mg/kg	11.02.18 03.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	71	%	68-120	11.02.18 03.43	
a,a,a-Trifluorotoluene	98-08-8	63	%	71-121	11.02.18 03.43	**

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-015	Date Collected:	10.29.18 12.15	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.7**	5.00	mg/kg	11.05.18 19.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 17.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 17.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 17.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 17.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 17.05	
o-Terphenyl	84-15-1	93	%	70-135	11.02.18 17.05	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH04C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-015	Date Collected:	10.29.18 12.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.01.18 14.00	Basis:	Wet Weight
Seq Number:	3068331			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1
Toluene	108-88-3	<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1
Ethylbenzene	100-41-4	<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1
m,p-Xylenes	179601-23-1	<0.0400	0.0400	mg/kg	11.02.18 04.10	U	1
o-Xylene	95-47-6	<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1
Total Xylenes	1330-20-7	<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1
Total BTEX		<0.0200	0.0200	mg/kg	11.02.18 04.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	76	%	68-120	11.02.18 04.10	
a,a,a-Trifluorotoluene	98-08-8	70	%	71-121	11.02.18 04.10	**

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-016	Date Collected:	10.29.18 12.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	24.9	mg/kg	11.05.18 19.36		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 17.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 17.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 17.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 17.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	11.02.18 17.23	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 17.23	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-016	Date Collected:	10.29.18 12.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1
Toluene	108-88-3	<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1
Ethylbenzene	100-41-4	<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1
m,p-Xylenes	179601-23-1	<0.0354	0.0354	mg/kg	11.02.18 19.58	U	1
o-Xylene	95-47-6	<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1
Total Xylenes	1330-20-7	<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1
Total BTEX		<0.0177	0.0177	mg/kg	11.02.18 19.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	68-120	11.02.18 19.58	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	11.02.18 19.58	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-017	Date Collected:	10.29.18 12.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**416**	5.00	mg/kg	11.05.18 19.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	11.02.18 17.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	11.02.18 17.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	11.02.18 17.41	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	11.02.18 17.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	11.02.18 17.41	
o-Terphenyl	84-15-1	93	%	70-135	11.02.18 17.41	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-017	Date Collected:	10.29.18 12.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1
Toluene	108-88-3	<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1
Ethylbenzene	100-41-4	<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1
m,p-Xylenes	179601-23-1	<0.0390	0.0390	mg/kg	11.02.18 20.22	U	1
o-Xylene	95-47-6	<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1
Total Xylenes	1330-20-7	<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1
Total BTEX		<0.0195	0.0195	mg/kg	11.02.18 20.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	68-120	11.02.18 20.22	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	11.02.18 20.22	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-018	Date Collected:	10.29.18 12.40	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**356**	5.00	mg/kg	11.05.18 19.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	11.02.18 18.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	11.02.18 18.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	11.02.18 18.00	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	11.02.18 18.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 18.00	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 18.00	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05B**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-018	Date Collected:	10.29.18 12.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1
Toluene	108-88-3	<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1
Ethylbenzene	100-41-4	<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1
m,p-Xylenes	179601-23-1	<0.0362	0.0362	mg/kg	11.02.18 16.45	U	1
o-Xylene	95-47-6	<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1
Total Xylenes	1330-20-7	<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1
Total BTEX		<0.0181	0.0181	mg/kg	11.02.18 16.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	68-120	11.02.18 16.45	
a,a,a-Trifluorotoluene	98-08-8	120	%	71-121	11.02.18 16.45	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-019	Date Collected:	10.29.18 12.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.05.18 12.00	Basis:	Wet Weight
Seq Number:	3068692				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**351**	4.97	mg/kg	11.05.18 19.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	11.02.18 09.00	Basis:	Wet Weight
Seq Number:	3068436				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	11.02.18 18.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	11.02.18 18.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	11.02.18 18.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	11.02.18 18.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	11.02.18 18.18	
o-Terphenyl	84-15-1	95	%	70-135	11.02.18 18.18	

Certificate of Analytical Results 604075

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State 001

Sample Id:	**PH05C**	Matrix:	Soil	Date Received:	10.31.18 11.00
Lab Sample Id:	604075-019	Date Collected:	10.29.18 12.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	11.02.18 12.00	Basis:	Wet Weight
Seq Number:	3068679			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1
Toluene	108-88-3	<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1
Ethylbenzene	100-41-4	<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1
m,p-Xylenes	179601-23-1	<0.0371	0.0371	mg/kg	11.02.18 20.46	U	1
o-Xylene	95-47-6	<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1
Total Xylenes	1330-20-7	<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1
Total BTEX		<0.0186	0.0186	mg/kg	11.02.18 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	68-120	11.02.18 20.46	
a,a,a-Trifluorotoluene	98-08-8	119	%	71-121	11.02.18 20.46	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 604075

LT Environmental, Inc.

Hat Mesa 32 State 001

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3068692 — Matrix: Solid — Date Prep: 11.05.18
MB Sample Id: 7665555-1-BLK — LCS Sample Id: 7665555-1-BKS — LCSD Sample Id: 7665555-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	240	96	90-110	1	20	mg/kg	11.05.18 17:24	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3068692 — Matrix: Soil — Date Prep: 11.05.18
Parent Sample Id: 604075-001 — MS Sample Id: 604075-001 S — MSD Sample Id: 604075-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.68	251	253	97	257	99	90-110	2	20	mg/kg	11.05.18 17:39	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3068692 — Matrix: Soil — Date Prep: 11.05.18
Parent Sample Id: 604075-011 — MS Sample Id: 604075-011 S — MSD Sample Id: 604075-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	85.5	248	329	98	337	101	90-110	2	20	mg/kg	11.05.18 18:54	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3068436 — Matrix: Solid — Date Prep: 11.02.18
MB Sample Id: 7665413-1-BLK — LCS Sample Id: 7665413-1-BKS — LCSD Sample Id: 7665413-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	994	99	974	97	70-135	2	20	mg/kg	11.02.18 10:56	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	1030	103	70-135	3	20	mg/kg	11.02.18 10:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		119		124		70-135	%	11.02.18 10:56
o-Terphenyl	105		112		112		70-135	%	11.02.18 10:56

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 604075

LT Environmental, Inc.

Hat Mesa 32 State 001

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3068436 | Matrix: Soil | Date Prep: 11.02.18
Parent Sample Id: 604075-001 | MS Sample Id: 604075-001 S | MSD Sample Id: 604075-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	928	93	915	92	70-135	1	20	mg/kg	11.02.18 11:51	
Diesel Range Organics (DRO)	<8.12	999	973	97	951	95	70-135	2	20	mg/kg	11.02.18 11:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		70-135	%	11.02.18 11:51
o-Terphenyl	105		96		70-135	%	11.02.18 11:51

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3068331 | Matrix: Solid | Date Prep: 11.01.18
MB Sample Id: 7665333-1-BLK | LCS Sample Id: 7665333-1-BKS | LCSD Sample Id: 7665333-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.89	95	1.86	93	55-120	2	20	mg/kg	11.01.18 13:07	
Toluene	<0.00468	2.00	1.72	86	1.70	85	77-120	1	20	mg/kg	11.01.18 13:07	
Ethylbenzene	<0.00616	2.00	1.64	82	1.61	81	77-120	2	20	mg/kg	11.01.18 13:07	
m,p-Xylenes	0.0100	4.00	3.34	84	3.29	82	78-120	2	20	mg/kg	11.01.18 13:07	
o-Xylene	<0.00682	2.00	1.64	82	1.66	83	78-120	1	20	mg/kg	11.01.18 13:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	81		88		84		68-120	%	11.01.18 13:07
a,a,a-Trifluorotoluene	81		95		89		71-121	%	11.01.18 13:07

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3068679 | Matrix: Solid | Date Prep: 11.02.18
MB Sample Id: 7665564-1-BLK | LCS Sample Id: 7665564-1-BKS | LCSD Sample Id: 7665564-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	2.20	110	2.23	112	55-120	1	20	mg/kg	11.02.18 15:08	
Toluene	0.00600	2.00	2.16	108	2.22	111	77-120	3	20	mg/kg	11.02.18 15:08	
Ethylbenzene	<0.0200	2.00	2.16	108	2.17	109	77-120	0	20	mg/kg	11.02.18 15:08	
m,p-Xylenes	<0.0400	4.00	4.31	108	4.33	108	78-120	0	20	mg/kg	11.02.18 15:08	
o-Xylene	<0.0200	2.00	2.20	110	2.18	109	78-120	1	20	mg/kg	11.02.18 15:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	141	**	129	**	118		68-120	%	11.02.18 15:08
a,a,a-Trifluorotoluene	133	**	131	**	120		71-121	%	11.02.18 15:08

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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

QC Summary 604075

LT Environmental, Inc.

Hat Mesa 32 State 001

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

Seq Number: 3068331 Matrix: Soil Date Prep: 11.01.18

Parent Sample Id: 604073-001 MS Sample Id: 604073-001 S MSD Sample Id: 604073-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0198	1.98	0.861	43	1.65	84	54-120	63	25	mg/kg	11.01.18 16:30	XF
Toluene	<0.00463	1.98	0.810	41	1.63	83	57-120	67	25	mg/kg	11.01.18 16:30	XF
Ethylbenzene	<0.0198	1.98	0.806	41	1.63	83	58-131	68	25	mg/kg	11.01.18 16:30	XF
m,p-Xylenes	<0.0396	3.96	1.53	39	3.33	85	62-124	74	25	mg/kg	11.01.18 16:30	XF
o-Xylene	<0.0198	1.98	0.762	38	1.66	84	62-124	74	25	mg/kg	11.01.18 16:30	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	43	**	85		68-120	%	11.01.18 16:30
a,a,a-Trifluorotoluene	40	**	85		71-121	%	11.01.18 16:30

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

Seq Number: 3068679 Matrix: Soil Date Prep: 11.02.18

Parent Sample Id: 604075-018 MS Sample Id: 604075-018 S MSD Sample Id: 604075-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0198	1.98	2.13	108	2.08	106	54-120	2	25	mg/kg	11.02.18 17:10	
Toluene	0.00904	1.98	2.19	110	2.16	110	57-120	1	25	mg/kg	11.02.18 17:10	
Ethylbenzene	<0.0198	1.98	2.15	109	2.12	108	58-131	1	25	mg/kg	11.02.18 17:10	
m,p-Xylenes	<0.0396	3.96	4.27	108	4.20	107	62-124	2	25	mg/kg	11.02.18 17:10	
o-Xylene	<0.0198	1.98	2.13	108	2.08	106	62-124	2	25	mg/kg	11.02.18 17:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	134	**	107		68-120	%	11.02.18 17:10
a,a,a-Trifluorotoluene	140	**	115		71-121	%	11.02.18 17:10

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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

Page 1 of 2

XENCO LABORATORIES
Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #

Xenco Job # 604075

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office
Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705
Email: abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belill

Project Information

Project Name/Number: Hat Mesa 32 State 001
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 1RP-3715

Analytical Information

BTEX (only BTEX) 8021
TPH (DRO GRO MRO) 8015
Chloride (300.00)

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preservatives: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE
1	PH01A	2'	10/29/18	1000	S	1								X
2	PH01B	3'		1005										X
3	PH01C	4'		1010										X
4	PH02	1'		1025										X
5	PH02A	2'		1030										X
6	PH02B	3'		1035										X
7	PH02C	4'		1040										X
8	PH03	1'		1055										X
9	PH03A	2'		1100										X
10	PH03B	3'		1105										X

Field Comments: Composite type / Discrete type

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1	B. Belill	10/29/18 @ 17:20				
2					10/30/18 15:30	
3						10/31/18 11:00
4						
5						

Custody Seal #

Preserved where applicable

On Ice: [x]

Cooler Temp. 0.2

Thermo. Corr. Factor R-6

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 2 of 2

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #:

Xenco Job #: 604075

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

Email: abaker@ltenv.com

Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Ben Belill

Project Information

Project Name/Number: Hat Mesa 32 State 001

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 1RP-3715

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX (only BTEX) 8021	TPH (DRO, GRO, MRO) 8015	Chloride (300.00)	Field Comments
1	PH03C	4'	10/29/18	1110	S	1								X	X	X	X	Discrete Type
2	PH04	1'		1200										X	X	X	X	
3	PH04A	2'		1205										X	X	X	X	
4	PH04B	3'		1210										X	X	X	X	
5	PH04C	4'		1215										X	X	X	X	
6	PH05	1'		1230										X	X	X	X	
7	PH05A	2'		1235										X	X	X	X	
8	PH05B	3'		1240										X	X	X	X	
9	PH05C	4'		1245										X	X	X	X	
10																		

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Date Time:			Date Time:	
Relinquished by Sampler: 1 [signature]	10/29/18 @ 1720	Received By: 1 [signature]	Relinquished By: 2 [signature]	10/30/18 15:30	Received By: 2 [signature] 10/31/18 11:00
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice ☒ Cooler Temp. 0.2 Thermo. Corr. Factor R8 0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

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

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

Inter-Office Shipment

IOS Number **116538**

Date/Time: 10/31/18 14:25
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: 773618497658

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
604075-001	S	PH01A	10/29/18 10:00	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-002	S	PH01B	10/29/18 10:05	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-003	S	PH01C	10/29/18 10:10	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-004	S	PH02	10/29/18 10:25	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-005	S	PH02A	10/29/18 10:30	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-006	S	PH02B	10/29/18 10:35	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-007	S	PH02C	10/29/18 10:40	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-008	S	PH03	10/29/18 10:55	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-009	S	PH03A	10/29/18 11:00	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-010	S	PH03B	10/29/18 11:05	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-011	S	PH03C	10/29/18 11:10	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-012	S	PH04	10/29/18 12:00	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-013	S	PH04A	10/29/18 12:05	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-014	S	PH04B	10/29/18 12:10	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-015	S	PH04C	10/29/18 12:15	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-016	S	PH05	10/29/18 12:30	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-017	S	PH05A	10/29/18 12:35	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-018	S	PH05B	10/29/18 12:40	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	
604075-019	S	PH05C	10/29/18 12:45	SW8021B	BTEX by EPA 8021B	11/06/18	11/12/18	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/31/2018

Received By:
Ashley Derstine

Date Received: 11/01/2018 13:06

Cooler Temperature: 3.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 116538

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

Sent By: Brianna Teel **Date Sent:** 10/31/2018 02:25 PM

Received By: Ashley Derstine **Date Received:** 11/01/2018 01:06 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: _____ Date: 11/01/2018

Ashley Derstine

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/31/2018 11:00:00 AM

Work Order #: 604075

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 11/02/2018

Checklist reviewed by: Jessica Kramer Date: 11/05/2018

Jessica Kramer

Analytical Report 613218

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Hat Mesa 32 State #1

1RP-3715

04-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

04-FEB-19

Project Manager: **Adrian Baker**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **613218**
Hat Mesa 32 State #1
Project Address: Delaware Basin

Adrian Baker:

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) 613218. 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. 613218 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS02	S	01-30-19 13:10	1.5 ft	613218-001
FS03	S	01-30-19 13:20	1.5 ft	613218-002
FS04	S	01-30-19 13:30	1.5 ft	613218-003
SW01	S	01-30-19 13:40	0 - 1.5 ft	613218-004
SW02	S	01-30-19 13:50	0 - 1.5 ft	613218-005
SW03	S	01-30-19 14:00	0 - 1.5 ft	613218-006
SW04	S	01-30-19 14:10	0 - 1.5 ft	613218-007
SW05	S	01-30-19 15:20	0 - 2 ft	613218-008

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Hat Mesa 32 State #1

Project ID: *1RP-3715*
Work Order Number(s): *613218*

Report Date: *04-FEB-19*
Date Received: *02/01/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3077978 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 613218-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 613218-001, -002, -003, -004, -005, -006, -007, -008.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 613218

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State #1

Project Id: 1RP-3715
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Fri Feb-01-19 12:45 pm
Report Date: 04-FEB-19
Project Manager: Jessica Kramer

Analysis Requested		613218-001		613218-002		613218-003		613218-004		613218-005		613218-006	
	Field Id:	FS02		FS03		FS04		SW01		SW02		SW03	
	Depth:	1.5- ft		1.5- ft		1.5- ft		0-1.5 ft		0-1.5 ft		0-1.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-30-19 13:10		Jan-30-19 13:20		Jan-30-19 13:30		Jan-30-19 13:40		Jan-30-19 13:50		Jan-30-19 14:00	
BTEX by EPA 8021B	***Extracted:***	Feb-01-19 15:00		Feb-01-19 15:00		Feb-01-19 15:00		Feb-01-19 15:00		Feb-01-19 15:00		Feb-01-19 15:00	
	Analyzed:	Feb-01-19 19:00		Feb-01-19 19:22		Feb-01-19 19:43		Feb-01-19 20:05		Feb-01-19 20:26		Feb-01-19 20:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Feb-02-19 12:00		Feb-02-19 12:00		Feb-02-19 12:00		Feb-02-19 12:00		Feb-02-19 12:00		Feb-02-19 12:00	
	Analyzed:	Feb-02-19 15:49		Feb-02-19 16:11		Feb-02-19 16:17		Feb-02-19 16:23		Feb-02-19 16:29		Feb-02-19 16:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		52.9	4.97	75.4	5.00	106	4.96	6.96	4.99	87.5	5.00	50.0	4.96
TPH by SW8015 Mod	***Extracted:***	Feb-03-19 09:00		Feb-03-19 09:00		Feb-03-19 09:00		Feb-03-19 09:00		Feb-03-19 09:00		Feb-02-19 08:00	
	Analyzed:	Feb-03-19 12:18		Feb-03-19 13:19		Feb-03-19 13:39		Feb-03-19 13:59		Feb-03-19 14:19		Feb-03-19 03:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		103	15.0	<15.0	15.0	<15.0	15.0	165	15.0	<15.0	15.0	84.7	15.0
Motor Oil Range Hydrocarbons (MRO)		38.3	15.0	<15.0	15.0	<15.0	15.0	37.0	15.0	<15.0	15.0	31.6	15.0
Total TPH		141	15.0	<15.0	15.0	<15.0	15.0	202	15.0	<15.0	15.0	116	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 613218

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State #1

Project Id: 1RP-3715
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Fri Feb-01-19 12:45 pm
Report Date: 04-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	613218-007		613218-008									
	Field Id:	SW04		SW05									
	Depth:	0-1.5 ft		0-2 ft									
	Matrix:	SOIL		SOIL									
	Sampled:	Jan-30-19 14:10		Jan-30-19 15:20									
BTEX by EPA 8021B	***Extracted:***	Feb-01-19 15:00		Feb-01-19 15:00									
	Analyzed:	Feb-01-19 21:09		Feb-01-19 21:30									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.00200	0.00200	<0.00199	0.00199								
Toluene		<0.00200	0.00200	<0.00199	0.00199								
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199								
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398								
o-Xylene		<0.00200	0.00200	<0.00199	0.00199								
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199								
Total BTEX		<0.00200	0.00200	<0.00199	0.00199								
Inorganic Anions by EPA 300	***Extracted:***	Feb-02-19 12:00		Feb-02-19 12:00									
	Analyzed:	Feb-02-19 16:42		Feb-02-19 17:00									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		<4.95	4.95	38.2	4.99								
TPH by SW8015 Mod	***Extracted:***	Feb-02-19 08:00		Feb-02-19 08:00									
	Analyzed:	Feb-03-19 04:01		Feb-03-19 04:20									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9								
Diesel Range Organics (DRO)		75.7	15.0	<14.9	14.9								
Motor Oil Range Hydrocarbons (MRO)		31.7	15.0	<14.9	14.9								
Total TPH		107	15.0	<14.9	14.9								

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-001	Date Collected:	01.30.19 13.10	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.9**	4.97	mg/kg	02.02.19 15.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.03.19 09.00	Basis:	Wet Weight
Seq Number:	3077973				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 12.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**103**	15.0	mg/kg	02.03.19 12.18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**38.3**	15.0	mg/kg	02.03.19 12.18		1
Total TPH	PHC635	**141**	15.0	mg/kg	02.03.19 12.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.03.19 12.18	
o-Terphenyl	84-15-1	95	%	70-135	02.03.19 12.18	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-001	Date Collected:	01.30.19 13.10	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.01.19 19.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.01.19 19.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.01.19 19.00	
1,4-Difluorobenzene	540-36-3	81	%	70-130	02.01.19 19.00	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-002	Date Collected:	01.30.19 13.20	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.4**	5.00	mg/kg	02.02.19 16.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.03.19 09.00	Basis:	Wet Weight
Seq Number:	3077973				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 13.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.03.19 13.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.03.19 13.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.03.19 13.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.03.19 13.19	
o-Terphenyl	84-15-1	95	%	70-135	02.03.19 13.19	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-002	Date Collected:	01.30.19 13.20	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.01.19 19.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.19 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	02.01.19 19.22	
1,4-Difluorobenzene	540-36-3	80	%	70-130	02.01.19 19.22	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-003	Date Collected:	01.30.19 13.30	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**106**	4.96	mg/kg	02.02.19 16.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.03.19 09.00	Basis:	Wet Weight
Seq Number:	3077973				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 13.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.03.19 13.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.03.19 13.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.03.19 13.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.03.19 13.39	
o-Terphenyl	84-15-1	98	%	70-135	02.03.19 13.39	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-003	Date Collected:	01.30.19 13.30	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.01.19 19.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.19 19.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	02.01.19 19.43	
1,4-Difluorobenzene	540-36-3	88	%	70-130	02.01.19 19.43	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-004	Date Collected:	01.30.19 13.40	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.96**	4.99	mg/kg	02.02.19 16.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.03.19 09.00	Basis:	Wet Weight
Seq Number:	3077973				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**165**	15.0	mg/kg	02.03.19 13.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**37.0**	15.0	mg/kg	02.03.19 13.59		1
Total TPH	PHC635	**202**	15.0	mg/kg	02.03.19 13.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.03.19 13.59	
o-Terphenyl	84-15-1	98	%	70-135	02.03.19 13.59	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-004	Date Collected:	01.30.19 13.40	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.01.19 20.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.01.19 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	02.01.19 20.05	
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.01.19 20.05	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-005	Date Collected:	01.30.19 13.50	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**87.5**	5.00	mg/kg	02.02.19 16.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.03.19 09.00	Basis:	Wet Weight
Seq Number:	3077973				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 14.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.03.19 14.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.03.19 14.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.03.19 14.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.03.19 14.19	
o-Terphenyl	84-15-1	105	%	70-135	02.03.19 14.19	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-005	Date Collected:	01.30.19 13.50	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.01.19 20.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.19 20.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	77	%	70-130	02.01.19 20.26	
4-Bromofluorobenzene	460-00-4	93	%	70-130	02.01.19 20.26	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-006	Date Collected:	01.30.19 14.00	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**50.0**	4.96	mg/kg	02.02.19 16.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.02.19 08.00	Basis:	Wet Weight
Seq Number:	3077970				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 03.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**84.7**	15.0	mg/kg	02.03.19 03.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**31.6**	15.0	mg/kg	02.03.19 03.41		1
Total TPH	PHC635	**116**	15.0	mg/kg	02.03.19 03.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.03.19 03.41	
o-Terphenyl	84-15-1	98	%	70-135	02.03.19 03.41	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-006	Date Collected:	01.30.19 14.00	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.01.19 20.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.01.19 20.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	02.01.19 20.48	
1,4-Difluorobenzene	540-36-3	74	%	70-130	02.01.19 20.48	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-007	Date Collected:	01.30.19 14.10	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	02.02.19 16.42	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.02.19 08.00	Basis:	Wet Weight
Seq Number:	3077970				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.03.19 04.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**75.7**	15.0	mg/kg	02.03.19 04.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**31.7**	15.0	mg/kg	02.03.19 04.01		1
Total TPH	PHC635	**107**	15.0	mg/kg	02.03.19 04.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.03.19 04.01	
o-Terphenyl	84-15-1	94	%	70-135	02.03.19 04.01	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-007	Date Collected:	01.30.19 14.10	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.01.19 21.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.19 21.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.01.19 21.09	
1,4-Difluorobenzene	540-36-3	91	%	70-130	02.01.19 21.09	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-008	Date Collected:	01.30.19 15.20	Sample Depth:	0 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.02.19 12.00	Basis:	Wet Weight
Seq Number:	3077881				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.2**	4.99	mg/kg	02.02.19 17.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.02.19 08.00	Basis:	Wet Weight
Seq Number:	3077970				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.03.19 04.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.03.19 04.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.03.19 04.20	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.03.19 04.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.03.19 04.20	
o-Terphenyl	84-15-1	97	%	70-135	02.03.19 04.20	

Certificate of Analytical Results 613218

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.01.19 12.45
Lab Sample Id:	613218-008	Date Collected:	01.30.19 15.20	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.01.19 15.00	Basis:	Wet Weight
Seq Number:	3077978				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.01.19 21.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.01.19 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	02.01.19 21.30	
1,4-Difluorobenzene	540-36-3	88	%	70-130	02.01.19 21.30	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 613218

LT Environmental, Inc.

Hat Mesa 32 State #1

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3077881 — Matrix: Solid — Date Prep: 02.02.19
MB Sample Id: 7670927-1-BLK — LCS Sample Id: 7670927-1-BKS — LCSD Sample Id: 7670927-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	236	94	253	101	90-110	7	20	mg/kg	02.02.19 15:00	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3077881 — Matrix: Soil — Date Prep: 02.02.19
Parent Sample Id: 613150-003 — MS Sample Id: 613150-003 S — MSD Sample Id: 613150-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.49	250	264	105	271	107	90-110	3	20	mg/kg	02.02.19 15:18	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3077881 — Matrix: Soil — Date Prep: 02.02.19
Parent Sample Id: 613218-007 — MS Sample Id: 613218-007 S — MSD Sample Id: 613218-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.80	248	268	107	269	107	90-110	0	20	mg/kg	02.02.19 16:48	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3077970 — Matrix: Solid — Date Prep: 02.02.19
MB Sample Id: 7671016-1-BLK — LCS Sample Id: 7671016-1-BKS — LCSD Sample Id: 7671016-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	858	86	868	87	70-135	1	20	mg/kg	02.02.19 20:05	
Diesel Range Organics (DRO)	<8.13	1000	948	95	958	96	70-135	1	20	mg/kg	02.02.19 20:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		121		122		70-135	%	02.02.19 20:05
o-Terphenyl	106		102		102		70-135	%	02.02.19 20:05

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 613218

LT Environmental, Inc.

Hat Mesa 32 State #1

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3077973 — Matrix: Solid — Date Prep: 02.03.19
MB Sample Id: 7671017-1-BLK — LCS Sample Id: 7671017-1-BKS — LCSD Sample Id: 7671017-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	847	85	843	84	70-135	0	20	mg/kg	02.03.19 11:38	
Diesel Range Organics (DRO)	<8.13	1000	934	93	931	93	70-135	0	20	mg/kg	02.03.19 11:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		121		70-135	%	02.03.19 11:38
o-Terphenyl	109		117		117		70-135	%	02.03.19 11:38

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3077970 — Matrix: Soil — Date Prep: 02.02.19
Parent Sample Id: 613219-001 — MS Sample Id: 613219-001 S — MSD Sample Id: 613219-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	813	81	836	84	70-135	3	20	mg/kg	02.02.19 21:03	
Diesel Range Organics (DRO)	<8.12	999	907	91	940	94	70-135	4	20	mg/kg	02.02.19 21:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		126		70-135	%	02.02.19 21:03
o-Terphenyl	119		110		70-135	%	02.02.19 21:03

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3077973 — Matrix: Soil — Date Prep: 02.03.19
Parent Sample Id: 613218-001 — MS Sample Id: 613218-001 S — MSD Sample Id: 613218-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	798	80	817	82	70-135	2	20	mg/kg	02.03.19 12:38	
Diesel Range Organics (DRO)	103	999	893	79	914	81	70-135	2	20	mg/kg	02.03.19 12:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		70-135	%	02.03.19 12:38
o-Terphenyl	103		103		70-135	%	02.03.19 12:38

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 613218

LT Environmental, Inc.

Hat Mesa 32 State #1

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

Seq Number: 3077978 Matrix: Solid Date Prep: 02.01.19

MB Sample Id: 7670964-1-BLK LCS Sample Id: 7670964-1-BKS LCSD Sample Id: 7670964-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0888	89	0.0920	91	70-130	4	35	mg/kg	02.01.19 16:53	
Toluene	<0.00200	0.0998	0.0800	80	0.0794	79	70-130	1	35	mg/kg	02.01.19 16:53	
Ethylbenzene	<0.00200	0.0998	0.0875	88	0.0888	88	70-130	1	35	mg/kg	02.01.19 16:53	
m,p-Xylenes	<0.00399	0.200	0.172	86	0.178	89	70-130	3	35	mg/kg	02.01.19 16:53	
o-Xylene	<0.00200	0.0998	0.0795	80	0.0817	81	70-130	3	35	mg/kg	02.01.19 16:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		113		114		70-130	%	02.01.19 16:53
4-Bromofluorobenzene	89		96		98		70-130	%	02.01.19 16:53

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

Seq Number: 3077978 Matrix: Soil Date Prep: 02.01.19

Parent Sample Id: 613218-001 MS Sample Id: 613218-001 S MSD Sample Id: 613218-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0744	74	0.0693	69	70-130	7	35	mg/kg	02.01.19 17:37	X
Toluene	<0.00202	0.101	0.0556	55	0.0538	54	70-130	3	35	mg/kg	02.01.19 17:37	X
Ethylbenzene	<0.00202	0.101	0.0624	62	0.0621	62	70-130	0	35	mg/kg	02.01.19 17:37	X
m,p-Xylenes	0.00271	0.202	0.126	61	0.120	58	70-130	5	35	mg/kg	02.01.19 17:37	X
o-Xylene	<0.00202	0.101	0.0566	56	0.0568	57	70-130	0	35	mg/kg	02.01.19 17:37	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	121		115		70-130	%	02.01.19 17:37
4-Bromofluorobenzene	119		90		70-130	%	02.01.19 17:37

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

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

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

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

Chain of Custody

Work Order No: 613218

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

Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178 Email:	bbelill@ltenv.com	

Work Order Comments

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

Project Name:	Hat Mesa 32 State #1
Project Number:	1RP-3715
P.O. Number:	
Sampler's Name:	Benjamin Belill

Turn Around: Routine ☐ Rush: 24hr Due Date: 2/1/19

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.6/3.5	Thermometer ID	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS02	S	1/30/19	1310	1.5'	1	X	X	X
FS03			1320	1.5'		X	X	X
FS04			1330	1.5'		X	X	X
SW01			1340	0-1.5'		X	X	X
SW02			1350	0-1.5'		X	X	X
SW03			1400	0-1.5'		X	X	X
SW04			1410	0-1.5'		X	X	X
SW05	↓	↓	1520	0-2'	↓	X	X	X
				BGT			1/30/19	

Work Order Notes

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

Sample Comments

Composite type

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			1/31/19 940	2	Timothy R. Elliott	1/31/19 9:46am
3	Chris Pulco		2/1/19 1245	4		
5				6		

Revised Date 051418 Rev. 2018.1

7743 6505 4577

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/01/2019 12:45:00 PM

Work Order #: 613218

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Katie Lowe Date: 02/01/2019

Checklist reviewed by: Jessica Kramer Date: 02/01/2019

Jessica Kramer

Analytical Report 614005

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Hat Mesa 32 State #1H

1RP-3715

15-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

15-FEB-19

Project Manager: **Adrian Baker**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **614005**
Hat Mesa 32 State #1H
Project Address: Delaware Basin

Adrian Baker:

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) 614005. 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. 614005 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS02A	S	02-06-19 09:20	3 ft	614005-001
FS05	S	02-06-19 09:30	3 ft	614005-002
SW07	S	02-06-19 09:50	0 - 3 ft	614005-003
Sw06	S	02-06-19 10:00	0 - 3 ft	614005-004
SW08	S	02-06-19 10:40	0 - 3 ft	614005-005
FS06	S	02-06-19 12:15	3 ft	614005-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Hat Mesa 32 State #1H

Project ID: *1RP-3715*
Work Order Number(s): *614005*

Report Date: *15-FEB-19*
Date Received: *02/08/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3078987 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 614005-001.

Batch: LBA-3078993 TPH by SW8015 Mod
Diesel Range Organics (DRO), Gasoline Range Hydrocarbons (GRO) RPD was outside laboratory control limits.
Samples in the analytical batch are: 614005-001, -002, -003, -004, -005, -006

Analyst spiked the LCS at the concentration of a CCV in error causing the RPD to be out.

Batch: LBA-3079125 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 614005

LT Environmental, Inc., Arvada, CO

Project Name: Hat Mesa 32 State #1H

Project Id: 1RP-3715
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Fri Feb-08-19 12:52 pm
Report Date: 15-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614005-001		614005-002		614005-003		614005-004		614005-005		614005-006	
	Field Id:	FS02A		FS05		SW07		Sw06		SW08		FS06	
	Depth:	3- ft		3- ft		0-3 ft		0-3 ft		0-3 ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-06-19 09:20		Feb-06-19 09:30		Feb-06-19 09:50		Feb-06-19 10:00		Feb-06-19 10:40		Feb-06-19 12:15	
BTEX by EPA 8021B	***Extracted:***	Feb-12-19 15:00		Feb-12-19 15:00		Feb-12-19 15:00		Feb-12-19 15:00		Feb-13-19 15:00		Feb-13-19 15:00	
	Analyzed:	Feb-13-19 17:56		Feb-13-19 18:17		Feb-13-19 18:39		Feb-13-19 19:00		Feb-14-19 11:13		Feb-14-19 11:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		0.00761	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		0.00761	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		0.00761	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-11-19 16:45		Feb-11-19 16:45		Feb-11-19 16:45		Feb-11-19 16:45		Feb-12-19 12:00		Feb-12-19 12:00	
	Analyzed:	Feb-12-19 03:16		Feb-12-19 03:22		Feb-12-19 03:28		Feb-12-19 03:34		Feb-12-19 15:22		Feb-12-19 14:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.96	4.96	58.2	4.96	248	4.99	107	4.99	190	4.97	<5.00	5.00
TPH by SW8015 Mod	***Extracted:***	Feb-12-19 12:00		Feb-12-19 12:00		Feb-12-19 12:00		Feb-12-19 12:00		Feb-12-19 12:00		Feb-12-19 12:00	
	Analyzed:	Feb-12-19 13:01		Feb-12-19 14:01		Feb-12-19 14:21		Feb-12-19 14:41		Feb-12-19 15:00		Feb-12-19 15:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	71.3	14.9	28.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	21.4	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	92.7	14.9	28.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS02A**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-001	Date Collected:	02.06.19 09.20	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.11.19 16.45	Basis:	Wet Weight
Seq Number:	3078770				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	02.12.19 03.16	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.19 13.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.19 13.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.12.19 13.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.19 13.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.12.19 13.01	
o-Terphenyl	84-15-1	94	%	70-135	02.12.19 13.01	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS02A**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-001	Date Collected:	02.06.19 09.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.12.19 15.00	Basis:	Wet Weight
Seq Number:	3078987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.19 17.56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.19 17.56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.19 17.56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.19 17.56	U	1
o-Xylene	95-47-6	**0.00761**	0.00199	mg/kg	02.13.19 17.56		1
Total Xylenes	1330-20-7	**0.00761**	0.00199	mg/kg	02.13.19 17.56		1
Total BTEX		**0.00761**	0.00199	mg/kg	02.13.19 17.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	157	%	70-130	02.13.19 17.56	**
1,4-Difluorobenzene	540-36-3	101	%	70-130	02.13.19 17.56	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-002	Date Collected:	02.06.19 09.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.11.19 16.45	Basis:	Wet Weight
Seq Number:	3078770				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**58.2**	4.96	mg/kg	02.12.19 03.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.19 14.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.19 14.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.12.19 14.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.19 14.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.12.19 14.01	
o-Terphenyl	84-15-1	93	%	70-135	02.12.19 14.01	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-002	Date Collected:	02.06.19 09.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.12.19 15.00	Basis:	Wet Weight
Seq Number:	3078987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.13.19 18.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.19 18.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.13.19 18.17	
1,4-Difluorobenzene	540-36-3	98	%	70-130	02.13.19 18.17	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-003	Date Collected:	02.06.19 09.50	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.11.19 16.45	Basis:	Wet Weight
Seq Number:	3078770				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**248**	4.99	mg/kg	02.12.19 03.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.19 14.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.19 14.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.12.19 14.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.19 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.12.19 14.21	
o-Terphenyl	84-15-1	90	%	70-135	02.12.19 14.21	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-003	Date Collected:	02.06.19 09.50	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.12.19 15.00	Basis:	Wet Weight
Seq Number:	3078987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.13.19 18.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.13.19 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.13.19 18.39	
1,4-Difluorobenzene	540-36-3	97	%	70-130	02.13.19 18.39	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**Sw06**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-004	Date Collected:	02.06.19 10.00	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.11.19 16.45	Basis:	Wet Weight
Seq Number:	3078770				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**107**	4.99	mg/kg	02.12.19 03.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.12.19 14.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**71.3**	14.9	mg/kg	02.12.19 14.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**21.4**	14.9	mg/kg	02.12.19 14.41		1
Total TPH	PHC635	**92.7**	14.9	mg/kg	02.12.19 14.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.12.19 14.41	
o-Terphenyl	84-15-1	93	%	70-135	02.12.19 14.41	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**Sw06**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-004	Date Collected:	02.06.19 10.00	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.12.19 15.00	Basis:	Wet Weight
Seq Number:	3078987				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.19 19.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.19 19.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	02.13.19 19.00	
4-Bromofluorobenzene	460-00-4	91	%	70-130	02.13.19 19.00	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-005	Date Collected:	02.06.19 10.40	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078914				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**190**	4.97	mg/kg	02.12.19 15.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.19 15.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**28.0**	15.0	mg/kg	02.12.19 15.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.12.19 15.00	U	1
Total TPH	PHC635	**28.0**	15.0	mg/kg	02.12.19 15.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.12.19 15.00	
o-Terphenyl	84-15-1	91	%	70-135	02.12.19 15.00	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-005	Date Collected:	02.06.19 10.40	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.13.19 15.00	Basis:	Wet Weight
Seq Number:	3079125				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.14.19 11.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.14.19 11.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.14.19 11.13	
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.14.19 11.13	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-006	Date Collected:	02.06.19 12.15	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078914				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.12.19 14.39	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.19 12.00	Basis:	Wet Weight
Seq Number:	3078993				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.19 15.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.19 15.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.12.19 15.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.19 15.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.12.19 15.20	
o-Terphenyl	84-15-1	91	%	70-135	02.12.19 15.20	

Certificate of Analytical Results 614005

LT Environmental, Inc., Arvada, CO

Hat Mesa 32 State #1H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.08.19 12.52
Lab Sample Id:	614005-006	Date Collected:	02.06.19 12.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.13.19 15.00	Basis:	Wet Weight
Seq Number:	3079125				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.14.19 11.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.14.19 11.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.14.19 11.32	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.14.19 11.32	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 614005

LT Environmental, Inc.

Hat Mesa 32 State #1H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3078770 — Matrix: Solid — Date Prep: 02.11.19
MB Sample Id: 7671526-1-BLK — LCS Sample Id: 7671526-1-BKS — LCSD Sample Id: 7671526-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	244	98	266	106	90-110	9	20	mg/kg	02.12.19 00:29	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3078914 — Matrix: Solid — Date Prep: 02.12.19
MB Sample Id: 7671594-1-BLK — LCS Sample Id: 7671594-1-BKS — LCSD Sample Id: 7671594-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	236	94	245	98	90-110	4	20	mg/kg	02.12.19 14:26	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3078770 — Matrix: Soil — Date Prep: 02.11.19
Parent Sample Id: 614018-001 — MS Sample Id: 614018-001 S — MSD Sample Id: 614018-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	420	248	657	96	664	98	90-110	1	20	mg/kg	02.12.19 02:17	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3078770 — Matrix: Soil — Date Prep: 02.11.19
Parent Sample Id: 614066-001 — MS Sample Id: 614066-001 S — MSD Sample Id: 614066-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	580	252	812	92	811	92	90-110	0	20	mg/kg	02.12.19 00:47	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3078914 — Matrix: Soil — Date Prep: 02.12.19
Parent Sample Id: 614005-006 — MS Sample Id: 614005-006 S — MSD Sample Id: 614005-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	255	102	259	104	90-110	2	20	mg/kg	02.12.19 14:45	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Final 1.000

QC Summary 614005

LT Environmental, Inc.

Hat Mesa 32 State #1H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3078914 Matrix: Soil Date Prep: 02.12.19
Parent Sample Id: 614023-013 MS Sample Id: 614023-013 S MSD Sample Id: 614023-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	223	250	476	101	483	104	90-110	1	20	mg/kg	02.12.19 16:19	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3078993 Matrix: Solid Date Prep: 02.12.19
MB Sample Id: 7671664-1-BLK LCS Sample Id: 7671664-1-BKS LCSD Sample Id: 7671664-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	500	452	90	907	91	70-135	67	20	mg/kg	02.12.19 12:22	F
Diesel Range Organics (DRO)	<8.13	500	450	90	925	93	70-135	69	20	mg/kg	02.12.19 12:22	F

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		103		124		70-135	%	02.12.19 12:22
o-Terphenyl	100		96		120		70-135	%	02.12.19 12:22

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3078993 Matrix: Soil Date Prep: 02.12.19
Parent Sample Id: 614005-001 MS Sample Id: 614005-001 S MSD Sample Id: 614005-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	998	908	91	968	97	70-135	6	20	mg/kg	02.12.19 13:21	
Diesel Range Organics (DRO)	<8.11	998	962	96	986	99	70-135	2	20	mg/kg	02.12.19 13:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		128		70-135	%	02.12.19 13:21
o-Terphenyl	123		123		70-135	%	02.12.19 13:21

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 614005

LT Environmental, Inc.

Hat Mesa 32 State #1H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3078987 — Matrix: Solid — Date Prep: 02.12.19
MB Sample Id: 7671681-1-BLK — LCS Sample Id: 7671681-1-BKS — LCSD Sample Id: 7671681-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.125	125	0.127	126	70-130	2	35	mg/kg	02.13.19 09:22	
Toluene	<0.00200	0.0998	0.102	102	0.103	102	70-130	1	35	mg/kg	02.13.19 09:22	
Ethylbenzene	<0.00200	0.0998	0.116	116	0.113	112	70-130	3	35	mg/kg	02.13.19 09:22	
m,p-Xylenes	<0.00399	0.200	0.232	116	0.232	115	70-130	0	35	mg/kg	02.13.19 09:22	
o-Xylene	<0.00200	0.0998	0.109	109	0.107	106	70-130	2	35	mg/kg	02.13.19 09:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		128		128		70-130	%	02.13.19 09:22
4-Bromofluorobenzene	86		86		89		70-130	%	02.13.19 09:22

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3079125 — Matrix: Solid — Date Prep: 02.13.19
MB Sample Id: 7671747-1-BLK — LCS Sample Id: 7671747-1-BKS — LCSD Sample Id: 7671747-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.116	116	0.109	109	70-130	6	35	mg/kg	02.14.19 09:20	
Toluene	<0.000457	0.100	0.0986	99	0.0923	92	70-130	7	35	mg/kg	02.14.19 09:20	
Ethylbenzene	<0.000566	0.100	0.0927	93	0.0834	83	70-130	11	35	mg/kg	02.14.19 09:20	
m,p-Xylenes	<0.00102	0.200	0.184	92	0.166	83	70-130	10	35	mg/kg	02.14.19 09:20	
o-Xylene	<0.000345	0.100	0.0919	92	0.0835	84	70-130	10	35	mg/kg	02.14.19 09:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		107		110		70-130	%	02.14.19 09:20
4-Bromofluorobenzene	95		95		102		70-130	%	02.14.19 09:20

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3078987 — Matrix: Soil — Date Prep: 02.12.19
Parent Sample Id: 613652-001 — MS Sample Id: 613652-001 S — MSD Sample Id: 613652-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.115	114	0.128	128	70-130	11	35	mg/kg	02.13.19 10:06	
Toluene	<0.00202	0.101	0.0914	90	0.101	101	70-130	10	35	mg/kg	02.13.19 10:06	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.111	111	70-130	14	35	mg/kg	02.13.19 10:06	
m,p-Xylenes	<0.00403	0.202	0.199	99	0.226	113	70-130	13	35	mg/kg	02.13.19 10:06	
o-Xylene	<0.00202	0.101	0.0902	89	0.103	103	70-130	13	35	mg/kg	02.13.19 10:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		106		70-130	%	02.13.19 10:06
4-Bromofluorobenzene	87		78		70-130	%	02.13.19 10:06

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 614005

LT Environmental, Inc.

Hat Mesa 32 State #1H

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

Seq Number: 3079125 Matrix: Soil Date Prep: 02.13.19

Parent Sample Id: 614451-001 MS Sample Id: 614451-001 S MSD Sample Id: 614451-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0870	87	0.0980	98	70-130	12	35	mg/kg	02.14.19 09:58	
Toluene	<0.000454	0.0996	0.0785	79	0.0847	85	70-130	8	35	mg/kg	02.14.19 09:58	
Ethylbenzene	<0.000563	0.0996	0.0727	73	0.0787	79	70-130	8	35	mg/kg	02.14.19 09:58	
m,p-Xylenes	<0.00101	0.199	0.149	75	0.161	81	70-130	8	35	mg/kg	02.14.19 09:58	
o-Xylene	<0.000343	0.0996	0.0760	76	0.0795	80	70-130	5	35	mg/kg	02.14.19 09:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		70-130	%	02.14.19 09:58
4-Bromofluorobenzene	107		107		70-130	%	02.14.19 09:58

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Chain of Custody

Work Order No: 614005

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178 Email:	bbelill@ltenv.com	

Work Order Comments

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

Project Name:	Hat Mesa 32 State #1H	Turn Around	
Project Number:	1RP-3715	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.6/3.5	Thermometer ID	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS02A	S	2/6/19	0920	3'	1	X	X	X
FS05			0930	3'		X	X	X
SW07			0950	0-3'		X	X	X
SW06			1000	0-3'		X	X	X
SW08			1040	0-3'		X	X	X
FS06			1215	3'		X	X	X
						BTEX		2/6/19

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite

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	B J Belill		2/7/19 @ 1445	2		2/7/19 15:30
3			2/8/19 1245	4		
5				6		

Revised Date 051418 Rev. 2018.1

7744 2053 2356

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/08/2019 12:52:29 PM

Work Order #: 614005

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Katie Lowe Date: 02/08/2019

Checklist reviewed by: Jessica Kramer Date: 02/11/2019

Jessica Kramer

ATTACHMENT 4: PHOTOGRAPHIC LOG

View of release area prior to excavation.

Project: 012918063	XTO Energy, Inc. Hat Mesa 32 State 001	LTE Advancing Opportunity
October 10, 2018	Photographic Log	

Southeast facing view of the smaller excavation.

Project: 012918063	XTO Energy, Inc. Hat Mesa 32 State 001	LTE Advancing Opportunity
October 29, 2018	Photographic Log	

West facing view of the larger excavation.

Project: 012918063	XTO Energy, Inc. Hat Mesa 32 State 001	LTE Advancing Opportunity
February 5, 2019	Photographic Log	

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 197561

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 197561
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	3/15/2023