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	NAB1921234575
District RP	2RP-5542
Facility ID	
Application ID	pAB1921234102

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)* NAB1921234575
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.095713° Longitude -103.863962°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit 421H Battery	Site Type Bulk Storage and Separation Facility (flare)
Date Release Discovered 7/14/2019	API# *(if applicable)* 30-015-41033

Unit Letter	Section	Township	Range	County
P	27	25S	30E	Eddy

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

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) 1.27	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) 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 Fire:

A flare scrubber dump valve became stuck in the closed position, causing the scrubber to overfill and send fluid to the flare. The oil ignited and burned a small section of pasture at the edge of the flare pad. The fire was immediately extinguished with no injuries and no damage to equipment. Oil misted pasture extending approximately 100' west of the flare pad. The dump valve was repaired. Additional third party resources have been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1921234575
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Application ID	pAB1921234102

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? An unauthorized release of a volume that results in a fire or is the result of a fire

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), Jim Amos and Deborah McKinney (BLM) on 7/15/2019 by email

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:

No free fluids remained to be recovered.

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 Supervisor

Signature: [signature] Date: 7/19/2019

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

OCD Only

Received by: Amalia Bustamante Date: 7/30/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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?	>100 (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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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 Supervisor_____

Signature:_____ Date: __10/11/2019_____

email: _____Kyle_Littrell@xtoenergy.com_____ Telephone: ___432-221-7331_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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 Supervisor

Signature: Date: 10/11/2019

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: Date:

Printed Name: Title:

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

October 11, 2019

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
Poker Lake Unit 421H Battery
Remediation Permit Number 2RP-5542
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing site assessment and soil sampling activities at the Poker Lake Unit 421H Battery (Site) in Unit P, Section 27, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following a release of crude oil at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Report and requesting no further action for Remediation Permit (RP) Number 2RP-5542.

RELEASE BACKGROUND

On July 14, 2019, a flare scrubber dump valve became stuck in the closed position, causing the scrubber to overfill and release fluid to the flare. The oil ignited and burned a small section in the pasture and misted oil into the pasture approximately 100 feet west of the caliche well pad. The fire was immediately extinguished and the dump valve was repaired. No fluid was recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on July 19, 2019, and was assigned RP Number 2RP-5542 (Attachment 1).

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is New Mexico Office of State Engineers (NM OSE) well C 03782, located approximately 1.66 miles west of the Site. The water well has a depth to groundwater of

approximately 277 feet bgs and a total depth of 805 feet bgs. Ground surface elevation at the water well location is 3,200 feet above mean seal level (AMSL), which is approximately 77 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is Brushy Draw located approximately 2,100 feet southeast 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. The Site is located in a low potential karst area.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg;
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- TPH: 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On August 1, 2019, LTE personnel was at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary soil samples (SS01 through SS04) within the release extent from a depth of approximately 0.5 feet bgs to assess for the presence or absence of soil impacts. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Based on laboratory analytical results for the preliminary soil samples, excavation activities did not appear to be warranted; however, additional assessment activities were scheduled. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

On October 1, 2019, LTE personnel returned to the Site to conduct soil assessment activities to further confirm the presence or absence of impacted soil. Boreholes were advanced via hand-auger at four locations within the release extent. Boreholes BH01 through BH04 were advanced to a depth of 3 feet or 4 feet bgs. Three or four delineation soil samples were collected from each borehole in one foot increments, at depths ranging from 1 foot to 4 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Midland, Texas. All boreholes were backfilled with the soil removed. The boreholes and delineation soil sample locations are depicted on Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS01 through SS04 collected at approximately 0.5 feet bgs and in delineation borehole soil samples BH01A through BH04A collected at 1 foot bgs, BH01B through BH04B collected at 2 feet bgs, BH01C through BH04C collected at 3 feet bgs, and BH01D and BH03D collected at 4 feet bgs. Laboratory analytical results are presented on Figure 2 and Figure 3, and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

CONCLUSIONS

Preliminary soil samples SS01 through SS04 and delineation soil samples BH01A/BH01B/BH01C through BH04A/BH04B/BH04C and BH01D and BH03D were collected from within the release extent from depths ranging from 0.5 feet to 4 feet bgs to assess for the presence or absence of soil impacts as a result of the July 14, 2019, release. Laboratory analytical results for all soil samples indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release extent.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified and no soil excavation was required as a result of the crude oil release. XTO requests no further action for RP Number 2RP-5542. An updated Form C-141 is included as Attachment 1.

If you have any questions or comments, please do not hesitate to contact Ashley Ager at (970) 385-1096.

Sincerely,

LT ENVIRONMENTAL, INC.

Carol Ann Whaley
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5542)
Attachment 2	Photographic Log
Attachment 3	Lithologic / Soil Sampling Logs
Attachment 4	Laboratory Analytical Reports

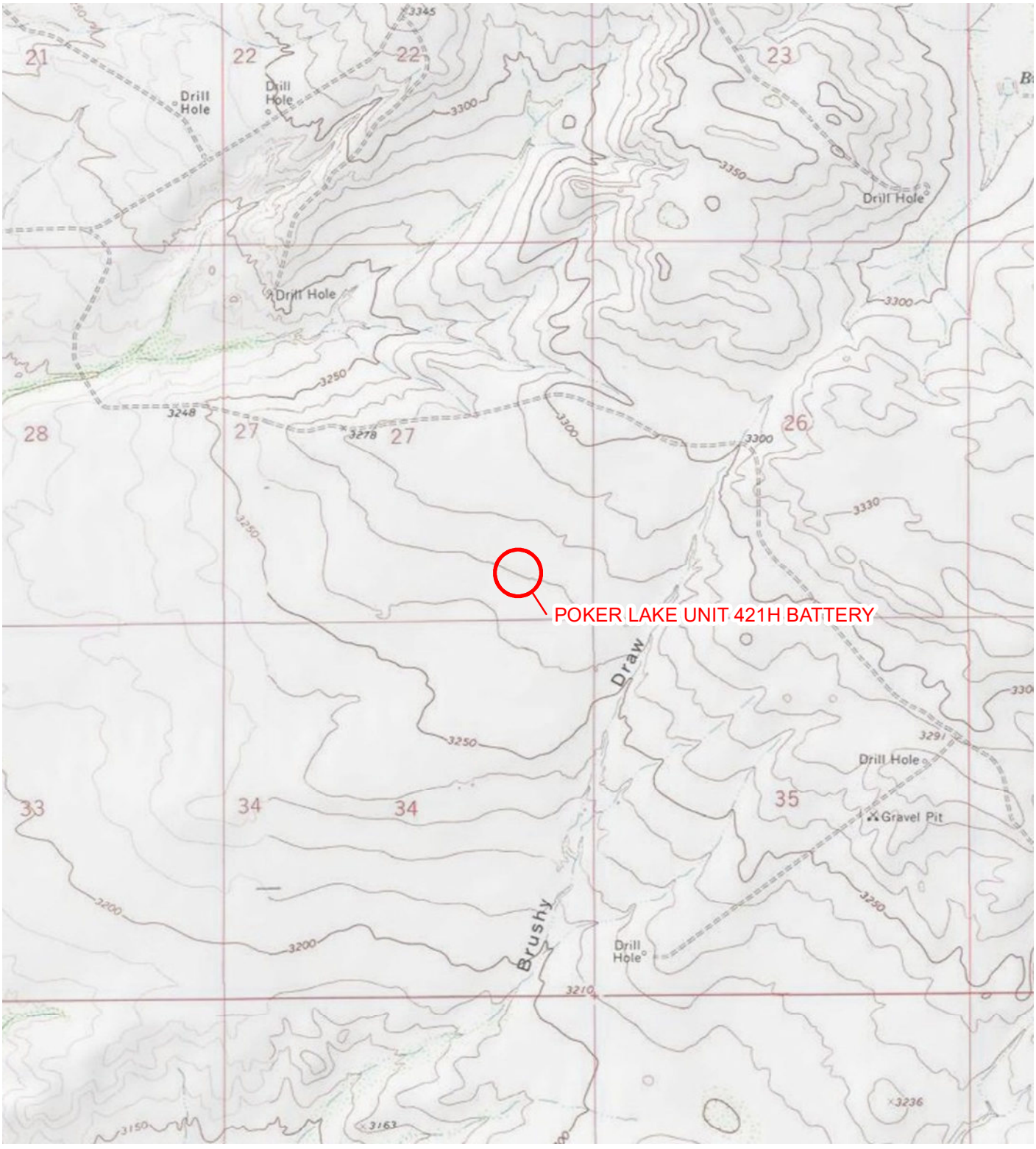

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-5542

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT 421H BATTERY
UNIT P SEC 27 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919159_POKER LAKE UNIT 421H BATTERY\012919159_FIG01_SL_NA.mxd

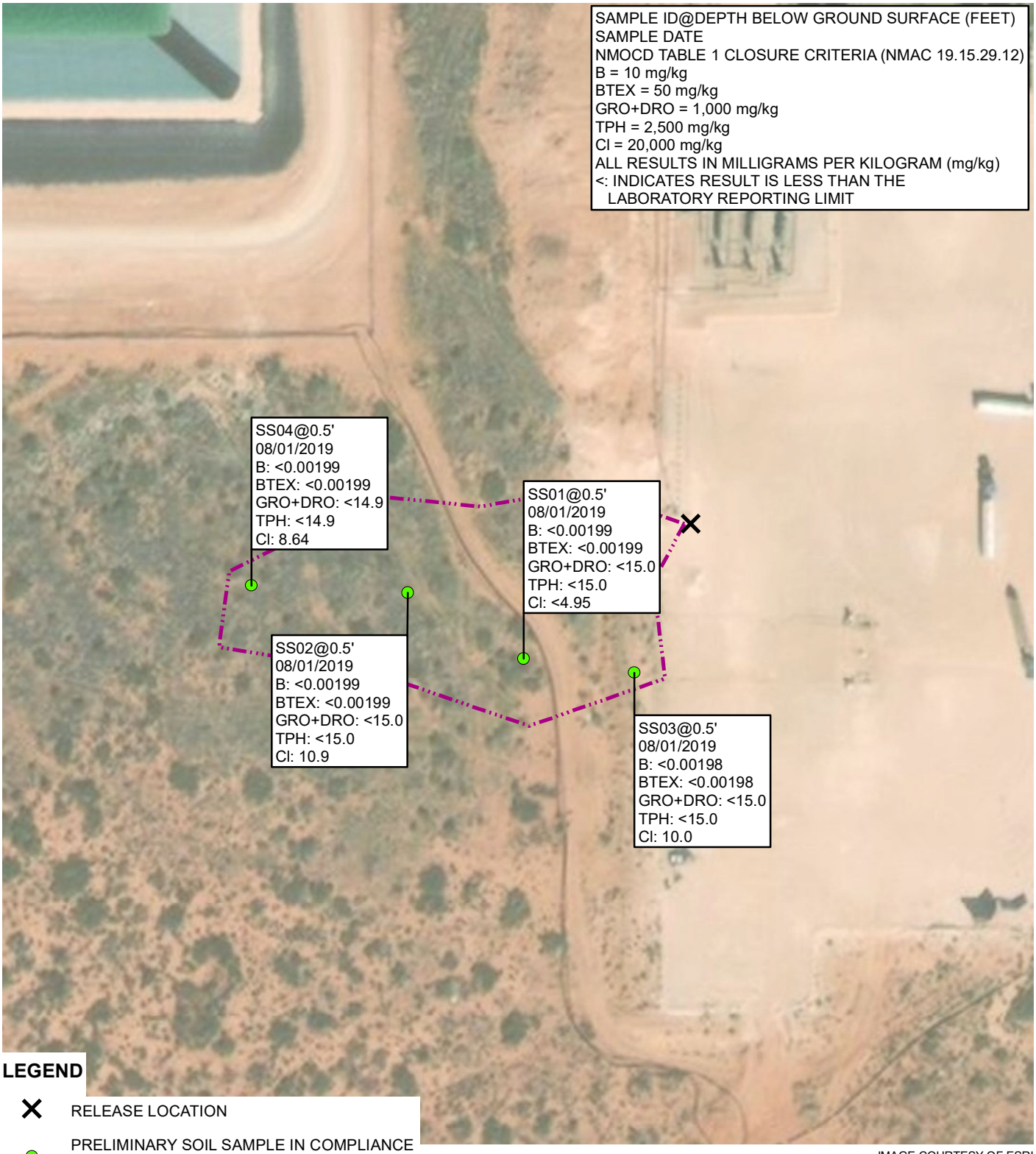

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 421H BATTERY
UNIT P SEC 27 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919159_POKER LAKE UNIT 421H BATTERY\012919159_FIG02_PRELIMINARY_NA.mxd

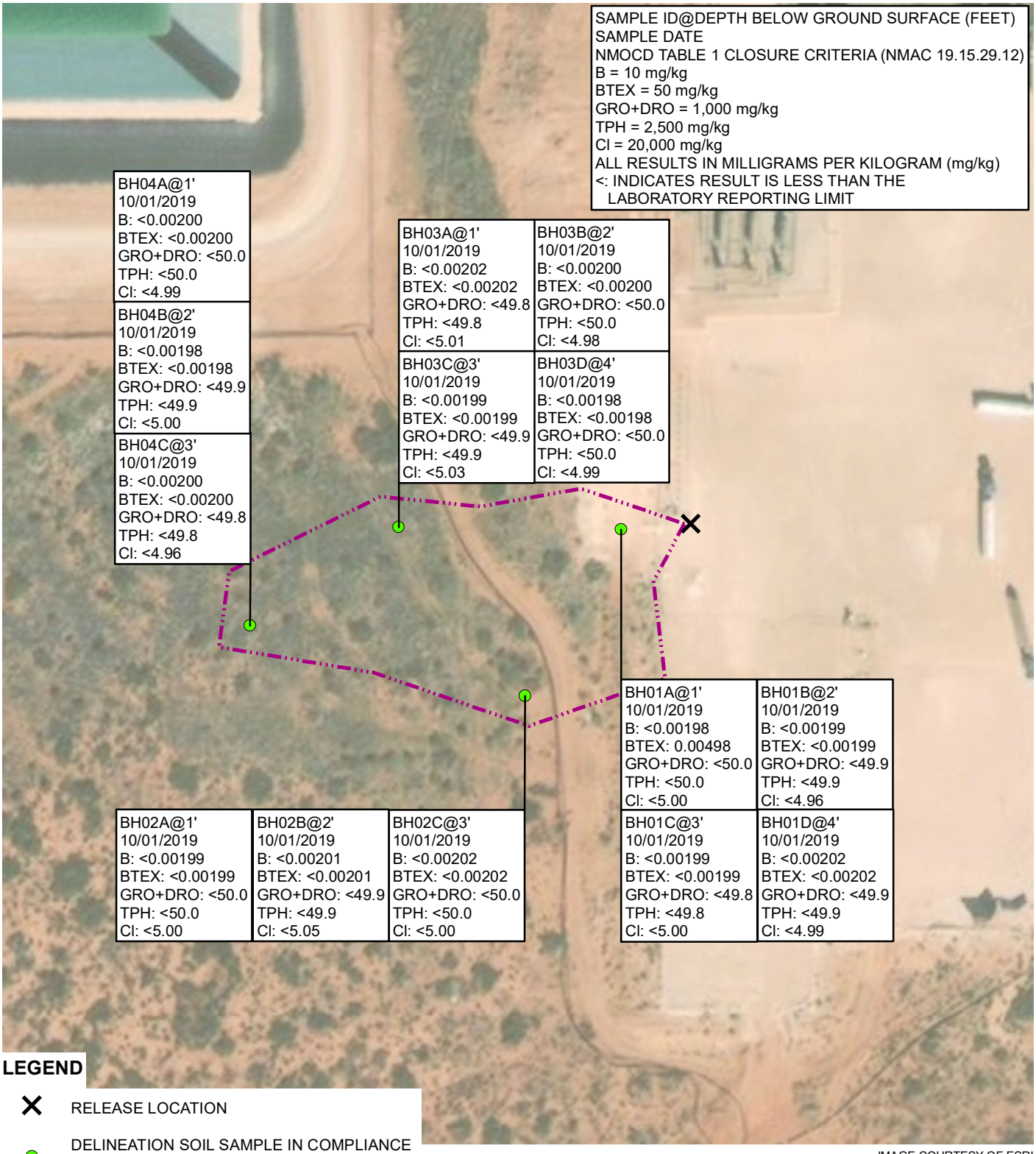

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 421H BATTERY
UNIT P SEC 27 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919159_POKER LAKE UNIT 421H BATTERY\012919159_FIG03_DELINEATION_5542.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT 421H BATTERY
REMEDIATION PERMIT NUMBER 2RP-5542
EDDY 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)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS01	0.5	08/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
SS02	0.5	08/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	10.9
SS03	0.5	08/01/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	10.2
SS04	0.5	08/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	8.64
BH01A	1	10/01/2019	<0.00198	<0.00198	<0.00198	0.00498	0.00498	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
BH01B	2	10/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<4.96
BH01C	3	10/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<5.00
BH01D	4	10/01/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
BH02A	1	10/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
BH02B	2	10/01/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05
BH02C	3	10/01/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
BH03A	1	10/01/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<5.01
BH03B	2	10/01/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
BH03C	3	10/01/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<5.03
BH03D	4	10/01/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
BH04A	1	10/01/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
BH04B	2	10/01/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00
BH04C	3	10/01/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<4.96
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018 NMAC -New Mexico Administrative Code
< - indicates result is below laboratory reporting limits
NMOCD - New Mexico Oil Conservation Division

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources Department

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

Incident ID	NAB1921234575
District RP	2RP-5542
Facility ID	
Application ID	pAB1921234102

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)* NAB1921234575
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.095713° Longitude -103.863962°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit 421H Battery	Site Type Bulk Storage and Separation Facility (flare)
Date Release Discovered 7/14/2019	API# *(if applicable)* 30-015-41033

Unit Letter	Section	Township	Range	County
P	27	25S	30E	Eddy

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

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) 1.27	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) 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 Fire:

A flare scrubber dump valve became stuck in the closed position, causing the scrubber to overfill and send fluid to the flare. The oil ignited and burned a small section of pasture at the edge of the flare pad. The fire was immediately extinguished with no injuries and no damage to equipment. Oil misted pasture extending approximately 100' west of the flare pad. The dump valve was repaired. Additional third party resources have been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1921234575
District RP	2RP-5542
Facility ID	
Application ID	pAB1921234102

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? An unauthorized release of a volume that results in a fire or is the result of a fire

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), Jim Amos and Deborah McKinney (BLM) on 7/15/2019 by email

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:

No free fluids remained to be recovered.

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 Supervisor

Signature: [signature] Date: 7/19/2019

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

OCD Only

Received by: Amalia Bustamante Date: 7/30/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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?	>100 (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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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 Supervisor_____

Signature:_____ Date: __10/11/2019_____

email: _____Kyle_Littrell@xtoenergy.com_____ Telephone: ___432-221-7331_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5542
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 Supervisor

Signature: Date: 10/11/2019

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: Date:

Printed Name: Title:

View of release area during site assessment activities.

Project: 012919259	XTO Energy, Inc. Poker Lake Unit 421H Battery	LTE Advancing Opportunity
August 1, 2019	Photographic Log	

Northern view of release area during delineation soil sampling activities.

Project: 012919159	XTO Energy, Inc. Poker Lake Unit 421H Battery	LTE Advancing Opportunity
October 1, 2019	Photographic Log	

ATTACHMENT 3: LITHOLOGIC / SOIL SMAPLING LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH01	10/1/19
Project Name: PLU 421H	**RP Number:** 2RP-4K5542
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: WM / Method: Hand Auger
Lat/Long: / Field Screening: PID, Cl⁻	Hole Diameter: 4in / Total Depth: 4ft

Comments: Hand Auger refisal at 4ft., rained before sample collection

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
MOIST	<32@1:8 <128	0.0	NO	BH01A	0 1		SP	medium grain SAND, moist, Poorly graded, Dark Brown, No odor (1-2) (0-2)
	<128	0.0		BH01B	2		SP	(2-4) ~~Fine~~ NM fine grain SAND, moist, poorly cemented, poorly graded, Brown Red, no odor
	<128	0.0		BH01C	3			
↓	<128	0.0	↓	BH01D	4		CCHE	Caliche, White, Well cemented, no odor Hand Auger refusal
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: BH02	Date: 10/1/19
Project Name: FLU 421H	RP Number: 2RP-5542
Logged By: LM	Method: Hand Auger
Hole Diameter: 4in	Total Depth: 3ft

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID, Cl⁻

Comments: Hand Auger refusal at 3ft, rained before sampling.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Moist			NO		0			
	<128	0.0		2 0@A	1		SP	Med grain SAND, Moist, Poorly sorted, Dark Brown, No odor (1-2) 6-3
	<128	0.0		2 6@B	2		SP	(2-3) fine grain SAND, Moist, Poorly cemented, Poorly Sorted Brown/red, No Odor
	<128	0.0		02C	3		CaHE	Caliche, White, Well cemented, No odor Hand Auger refusal
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: BH03	Date: 10/1/19
Project Name: FLU 421 H	RP Number: 2RP-5542
Logged By: LM	Method: HAND Auger
Hole Diameter: 4in	Total Depth: 4FT
Field Screening: PID, Cl⁻	

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Comments: Hand Auger refusal at 4FT, rained before sampling

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Moist			NO		0			
	1128	0.0		03A	1	(0-2)	SP	medium grain, moist, poorly sorted, dark brown, no odor
	1128	0.0		03B	2	(2-4)	SP	fine grain, moist, poorly cemented, poorly ~~sorted~~ graded, soft, brown/red, no odor
	1128	0.0		03C	3			
	1128	0.0		03D	4		CCHE	calechic, white, well cemented, no odor
								Hand Auger refusal
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: BH04	Date: 10/1/19
Project Name: FLV 421 H	RP Number: 2RP-5542
Logged By: WM	Method: Hand Auger
Lat/Long:	Field Screening: PID, Cl
Hole Diameter: 4in	Total Depth: 3ft

LITHOLOGIC / SOIL SAMPLING LOG

Comments: Hand Auger refusal at 3ft, rained before sampling

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Moist	1280.0	0.0	NO	BH04A	0	0-1	SP	SAND (0-2) Med grain, Moist, Poorly sorted, Dark Br, no odor
	1280.0			BH04B	1	1-2	SP	(2-3) Fine grain SAND, Moist, Poorly sorted, Poorly cemented, Brown/red, No odor
	1280.0			BH04C	2	2-3	CCHE	Caliche, White, Well cemented, No odor
					3			Hand Auger Refusal
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 633244

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 421H

012919159

13-AUG-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

13-AUG-19

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

Reference: XENCO Report No(s): **633244**
PLU 421H
Project Address:

Dan Moir:

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) 633244. 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. 633244 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	08-01-19 13:59	0.5 ft	633244-001
SS02	S	08-01-19 14:11	0.5 ft	633244-002
SS03	S	08-01-19 14:21	0.5 ft	633244-003
SS04	S	08-01-19 14:33	0.5 ft	633244-004

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3098311 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 633244

LT Environmental, Inc., Arvada, CO

Project Name: PLU 421H

Project Id: 012919159
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Aug-06-19 04:24 pm
Report Date: 13-AUG-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	633244-001		633244-002		633244-003		633244-004			
	Field Id:	SS01		SS02		SS03		SS04			
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Aug-01-19 13:59		Aug-01-19 14:11		Aug-01-19 14:21		Aug-01-19 14:33			
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-09-19 10:30		Aug-09-19 10:30		Aug-09-19 10:30		Aug-09-19 10:30			
	Analyzed:	Aug-11-19 08:40		Aug-11-19 09:00		Aug-11-19 09:20		Aug-11-19 09:41			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00397	0.00397	<0.00398	0.00398		
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199		
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 13:40		Aug-08-19 14:40		Aug-08-19 14:40		Aug-08-19 14:40			
	Analyzed:	Aug-08-19 16:01		Aug-09-19 09:46		Aug-09-19 09:53		Aug-09-19 10:12			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		<4.95	4.95	10.9	5.03	10.2	5.00	8.64	4.97		
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-08-19 14:00		Aug-08-19 14:00		Aug-08-19 14:00		Aug-08-19 14:00			
	Analyzed:	Aug-12-19 17:18		Aug-12-19 17:37		Aug-12-19 17:56		Aug-12-19 18:16			
	Units/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		
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<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		
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9		
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-001	Date Collected:	08.01.19 13.59	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 13.40	Basis:	Wet Weight
Seq Number:	3097986			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	08.08.19 16.01	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.08.19 14.00	Basis:	Wet Weight
Seq Number:	3098275			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 17.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 17.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 17.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 17.18	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 17.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.12.19 17.18	
o-Terphenyl	84-15-1	86	%	70-135	08.12.19 17.18	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-001	Date Collected:	08.01.19 13.59	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 08.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 08.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	08.11.19 08.40	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.11.19 08.40	

Final 1.000

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-002	Date Collected:	08.01.19 14.11	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 14.40	Basis:	Wet Weight
Seq Number:	3098080			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.9**	5.03	mg/kg	08.09.19 09.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.08.19 14.00	Basis:	Wet Weight
Seq Number:	3098275			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 17.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 17.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 17.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 17.37	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 17.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	08.12.19 17.37	
o-Terphenyl	84-15-1	81	%	70-135	08.12.19 17.37	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-002	Date Collected:	08.01.19 14.11	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 09.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 09.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	08.11.19 09.00	
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.11.19 09.00	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-003	Date Collected:	08.01.19 14.21	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 14.40	Basis:	Wet Weight
Seq Number:	3098080			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.2**	5.00	mg/kg	08.09.19 09.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.08.19 14.00	Basis:	Wet Weight
Seq Number:	3098275			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.12.19 17.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 17.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 17.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 17.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 17.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.12.19 17.56	
o-Terphenyl	84-15-1	90	%	70-135	08.12.19 17.56	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-003	Date Collected:	08.01.19 14.21	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.11.19 09.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.19 09.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.11.19 09.20	
1,4-Difluorobenzene	540-36-3	86	%	70-130	08.11.19 09.20	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-004	Date Collected:	08.01.19 14.33	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 14.40	Basis:	Wet Weight
Seq Number:	3098080			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.64**	4.97	mg/kg	08.09.19 10.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.08.19 14.00	Basis:	Wet Weight
Seq Number:	3098275			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.12.19 18.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.12.19 18.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.12.19 18.16	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.12.19 18.16	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.12.19 18.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.12.19 18.16	
o-Terphenyl	84-15-1	86	%	70-135	08.12.19 18.16	

Certificate of Analytical Results 633244

LT Environmental, Inc., Arvada, CO

PLU 421H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	08.06.19 16.24
Lab Sample Id:	633244-004	Date Collected:	08.01.19 14.33	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 09.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 09.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.11.19 09.41	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.11.19 09.41	

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 633244

LT Environmental, Inc.

PLU 421H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097986 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683801-1-BLK LCS Sample Id: 7683801-1-BKS LCSD Sample Id: 7683801-1-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	246	98	255	102	90-110	4	20	mg/kg	08.08.19 14:31	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098080 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683802-1-BLK LCS Sample Id: 7683802-1-BKS LCSD Sample Id: 7683802-1-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	261	104	261	104	90-110	0	20	mg/kg	08.09.19 08:12	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097986 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633244-001 MS Sample Id: 633244-001 S MSD Sample Id: 633244-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	249	100	235	95	90-110	6	20	mg/kg	08.08.19 16:06	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097986 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633261-003 MS Sample Id: 633261-003 S MSD Sample Id: 633261-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	127	252	381	101	388	104	90-110	2	20	mg/kg	08.08.19 14:47	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098080 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633244-003 MS Sample Id: 633244-003 S MSD Sample Id: 633244-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.2	250	267	103	267	103	90-110	0	20	mg/kg	08.09.19 09:59	

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 633244

LT Environmental, Inc.

PLU 421H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098080 Matrix: Sludge Date Prep: 08.08.19
Parent Sample Id: 633426-001 MS Sample Id: 633426-001 S MSD Sample Id: 633426-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	198	253	456	102	456	102	90-110	0	20	mg/kg	08.09.19 08:31	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098275 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683831-1-BLK LCS Sample Id: 7683831-1-BKS LCSD Sample Id: 7683831-1-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	989	99	1020	102	70-135	3	20	mg/kg	08.12.19 15:04	
Diesel Range Organics (DRO)	<8.13	1000	985	99	963	96	70-135	2	20	mg/kg	08.12.19 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		114		114		70-135	%	08.12.19 15:04
o-Terphenyl	98		99		99		70-135	%	08.12.19 15:04

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098275 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633262-001 MS Sample Id: 633262-001 S MSD Sample Id: 633262-001 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)	<7.98	997	1100	110	1160	116	70-135	5	20	mg/kg	08.12.19 16:01	
Diesel Range Organics (DRO)	48.3	997	1130	108	1130	109	70-135	0	20	mg/kg	08.12.19 16:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		122		70-135	%	08.12.19 16:01
o-Terphenyl	100		104		70-135	%	08.12.19 16:01

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 633244

LT Environmental, Inc.

PLU 421H

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

Seq Number: 3098311 Matrix: Solid Date Prep: 08.09.19

MB Sample Id: 7683893-1-BLK LCS Sample Id: 7683893-1-BKS LCSD Sample Id: 7683893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0884	88	0.103	103	70-130	15	35	mg/kg	08.11.19 04:40	
Toluene	0.000620	0.100	0.0835	84	0.0957	96	70-130	14	35	mg/kg	08.11.19 04:40	
Ethylbenzene	<0.00200	0.100	0.0836	84	0.0951	95	70-130	13	35	mg/kg	08.11.19 04:40	
m,p-Xylenes	<0.00101	0.200	0.166	83	0.189	95	70-130	13	35	mg/kg	08.11.19 04:40	
o-Xylene	<0.000344	0.100	0.0876	88	0.100	100	70-130	13	35	mg/kg	08.11.19 04:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		99		101		70-130	%	08.11.19 04:40
4-Bromofluorobenzene	107		103		109		70-130	%	08.11.19 04:40

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

Seq Number: 3098311 Matrix: Soil Date Prep: 08.09.19

Parent Sample Id: 633355-036 MS Sample Id: 633355-036 S MSD Sample Id: 633355-036 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0610	61	0.0756	76	70-130	21	35	mg/kg	08.11.19 05:20	X
Toluene	<0.00199	0.0996	0.0536	54	0.0585	59	70-130	9	35	mg/kg	08.11.19 05:20	X
Ethylbenzene	<0.00199	0.0996	0.0534	54	0.0636	64	70-130	17	35	mg/kg	08.11.19 05:20	X
m,p-Xylenes	<0.00398	0.199	0.0825	41	0.0700	35	70-130	16	35	mg/kg	08.11.19 05:20	X
o-Xylene	<0.00199	0.0996	0.0605	61	0.0713	72	70-130	16	35	mg/kg	08.11.19 05:20	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	08.11.19 05:20
4-Bromofluorobenzene	114		109		70-130	%	08.11.19 05:20

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: 633244

XENCO LABORATORIES

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

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Project Manager:	Dan Moir	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 Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU 421H	Turn Around	
Project Number:	012919159	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	4.2	Thermometer ID	T-NM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	4	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	08/01/19	1359	0.5'	1	X	X	X
SS02	S	08/01/19	1411	0.5'	1	X	X	X
SS03	S	08/01/19	1421	0.5'	1	X	X	X
SS04	S	08/01/19	1433	0.5'	1	X	X	X

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Anna Byers	8/6/19 @ 1600	2 Anna Byers		8/6/19 16:24
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Final 1.000

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Inter-Office Shipment

IOS Number **45735**

Date/Time: 08/07/19 10:08
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7759305855567

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
633244-001	S	SS01	08/01/19 13:59	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/15/19	JKR	GRO-DRO PHCC10C28 PI	
633244-001	S	SS01	08/01/19 13:59	SW8021B	BTEX by EPA 8021B	08/12/19	08/15/19	JKR	BR4FBZ BZ BZME EBZ X	
633244-001	S	SS01	08/01/19 13:59	E300_CL	Chloride by EPA 300	08/12/19	01/28/20	JKR	CL	
633244-002	S	SS02	08/01/19 14:11	SW8021B	BTEX by EPA 8021B	08/12/19	08/15/19	JKR	BR4FBZ BZ BZME EBZ X	
633244-002	S	SS02	08/01/19 14:11	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/15/19	JKR	GRO-DRO PHCC10C28 PI	
633244-002	S	SS02	08/01/19 14:11	E300_CL	Chloride by EPA 300	08/12/19	01/28/20	JKR	CL	
633244-003	S	SS03	08/01/19 14:21	SW8021B	BTEX by EPA 8021B	08/12/19	08/15/19	JKR	BR4FBZ BZ BZME EBZ X	
633244-003	S	SS03	08/01/19 14:21	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/15/19	JKR	GRO-DRO PHCC10C28 PI	
633244-003	S	SS03	08/01/19 14:21	E300_CL	Chloride by EPA 300	08/12/19	01/28/20	JKR	CL	
633244-004	S	SS04	08/01/19 14:33	SW8021B	BTEX by EPA 8021B	08/12/19	08/15/19	JKR	BR4FBZ BZ BZME EBZ X	
633244-004	S	SS04	08/01/19 14:33	E300_CL	Chloride by EPA 300	08/12/19	01/28/20	JKR	CL	
633244-004	S	SS04	08/01/19 14:33	SW8015MOD_NM	TPH by SW8015 Mod	08/12/19	08/15/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 08/07/2019

Received By: 
Brianna Teel

Date Received: 08/08/2019 11:05

Cooler Temperature: 0.5

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 45735

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

Sent By: Elizabeth McClellan **Date Sent:** 08/07/2019 10:08 AM

Received By: Brianna Teel **Date Received:** 08/08/2019 11:05 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 08/08/2019

Brianna Teel

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/06/2019 04:24:00 PM

Work Order #: 633244

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco Midland.
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 08/07/2019

Checklist reviewed by: Kalei Stout Date: 08/08/2019

Analytical Report 638706

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 42H

012919159

04-OCT-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04-OCT-19

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

Reference: XENCO Report No(s): **638706**
PLU 42H
Project Address: Eddy County

Dan Moir:

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) 638706. 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. 638706 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Sample Cross Reference 638706

LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01A	S	10-01-19 10:30	1 ft	638706-001
BH02A	S	10-01-19 10:45	1 ft	638706-002
BH03A	S	10-01-19 11:00	1 ft	638706-003
BH04A	S	10-01-19 11:15	1 ft	638706-004
BH01B	S	10-01-19 10:33	2 ft	638706-005
BH02B	S	10-01-19 10:48	2 ft	638706-006
BH03B	S	10-01-19 10:30	2 ft	638706-007
BH04B	S	10-01-19 11:18	2 ft	638706-008
BH01C	S	10-01-19 10:36	3 ft	638706-009
BH02C	S	10-01-19 10:31	3 ft	638706-010
BH03C	S	10-01-19 11:06	3 ft	638706-011
BH04C	S	10-01-19 11:21	3 ft	638706-012
BH01D	S	10-01-19 10:39	4 ft	638706-013
BH03D	S	10-01-19 11:09	4 ft	638706-014

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103317 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7687449-1-BLK.

Surrogate 1-Chlorooctane recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7687449-1-BLK,638717-001 S,638717-001 SD.

Batch: LBA-3103326 Chloride by EPA 300

Lab Sample ID 638706-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 638706-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014.

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

Batch: LBA-3103334 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected. Samples affected are: 638706-012.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 638706-001 S,638706-001 SD,638706-004,638706-005,638706-006,638706-014,638706-008,638706-009,638706-010,638706-011,638706-012,638706-013,638706-003,638706-002,638706-007.

Certificate of Analysis Summary 638706

LT Environmental, Inc., Arvada, CO

Project Name: PLU 42H

Project Id: 012919159
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Oct-02-19 08:22 am
Report Date: 04-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	638706-001		638706-002		638706-003		638706-004		638706-005		638706-006	
	Field Id:	BH01A		BH02A		BH03A		BH04A		BH01B		BH02B	
	Depth:	1- ft		1- ft		1- ft		1- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-01-19 10:30		Oct-01-19 10:45		Oct-01-19 11:00		Oct-01-19 11:15		Oct-01-19 10:33		Oct-01-19 10:48	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45	
	Analyzed:	Oct-04-19 05:27		Oct-04-19 05:47		Oct-04-19 06:07		Oct-04-19 06:28		Oct-04-19 06:48		Oct-04-19 07:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00403	0.00403	<0.00399	0.00399	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		0.00498	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		0.00498	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		0.00498	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40	
	Analyzed:	Oct-03-19 13:11		Oct-03-19 13:30		Oct-03-19 13:37		Oct-03-19 13:43		Oct-03-19 13:50		Oct-03-19 14:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<5.00	5.00	<5.04	5.04	<5.01	5.01	<4.99	4.99	<4.96	4.96	<5.05	5.05
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00	
	Analyzed:	Oct-03-19 20:31		Oct-03-19 20:50		Oct-03-19 21:10		Oct-03-19 21:29		Oct-03-19 22:08		Oct-03-19 22:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.9	49.9

Certificate of Analysis Summary 638706

LT Environmental, Inc., Arvada, CO

Project Name: PLU 42H

Project Id: 012919159
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Oct-02-19 08:22 am
Report Date: 04-OCT-19
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	638706-007		638706-008		638706-009		638706-010		638706-011		638706-012	
	Field Id:	BH03B		BH04B		BH01C		BH02C		BH03C		BH04C	
	Depth:	2- ft		2- ft		3- ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-01-19 10:30		Oct-01-19 11:18		Oct-01-19 10:36		Oct-01-19 10:31		Oct-01-19 11:06		Oct-01-19 11:21	
BTEX by EPA 8021B SUB: T104704400-19-19	*Extracted:*	Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45		Oct-03-19 11:45	
	Analyzed:	Oct-04-19 07:28		Oct-04-19 08:47		Oct-04-19 09:07		Oct-04-19 09:27		Oct-04-19 09:47		Oct-04-19 10:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00397	0.00397	<0.00398	0.00398	<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	*Extracted:*	Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40		Oct-03-19 12:40	
	Analyzed:	Oct-03-19 14:15		Oct-03-19 14:22		Oct-03-19 14:28		Oct-03-19 14:35		Oct-03-19 14:41		Oct-03-19 15:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.98	4.98	<5.00	5.00	<5.00	5.00	<5.00	5.00	<5.03	5.03	<4.96	4.96
TPH by SW8015 Mod SUB: T104704400-19-19	*Extracted:*	Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00		Oct-03-19 09:00	
	Analyzed:	Oct-03-19 22:47		Oct-03-19 23:06		Oct-03-19 23:25		Oct-03-19 23:44		Oct-04-19 00:03		Oct-04-19 00:23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9	<49.8	49.8

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 638706

LT Environmental, Inc., Arvada, CO

Project Name: PLU 42H

Project Id: 012919159
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Oct-02-19 08:22 am
Report Date: 04-OCT-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	638706-013		638706-014					
	Field Id:	BH01D		BH03D					
	Depth:	4- ft		4- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-01-19 10:39		Oct-01-19 11:09					
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-03-19 11:45		Oct-03-19 11:45					
	Analyzed:	Oct-04-19 10:28		Oct-04-19 10:48					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00198	0.00198				
Toluene		<0.00202	0.00202	<0.00198	0.00198				
Ethylbenzene		<0.00202	0.00202	<0.00198	0.00198				
m,p-Xylenes		<0.00403	0.00403	<0.00396	0.00396				
o-Xylene		<0.00202	0.00202	<0.00198	0.00198				
Total Xylenes		<0.00202	0.00202	<0.00198	0.00198				
Total BTEX		<0.00202	0.00202	<0.00198	0.00198				
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-03-19 12:40		Oct-03-19 12:40					
	Analyzed:	Oct-03-19 15:07		Oct-03-19 15:26					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<4.99	4.99	<4.99	4.99				
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-03-19 09:00		Oct-03-19 09:00					
	Analyzed:	Oct-04-19 00:42		Oct-04-19 01:01					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0				
Total GRO-DRO		<49.9	49.9	<50.0	50.0				
Total TPH		<49.9	49.9	<50.0	50.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 638706

LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-001	Date Collected:	10.01.19 10.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.03.19 13.11	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.19 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.19 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.19 20.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.03.19 20.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.19 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.03.19 20.31	
o-Terphenyl	84-15-1	111	%	70-135	10.03.19 20.31	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-001	Date Collected:	10.01.19 10.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.04.19 05.27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.04.19 05.27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.04.19 05.27	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.04.19 05.27	U	1
o-Xylene	95-47-6	**0.00498**	0.00198	mg/kg	10.04.19 05.27		1
Total Xylenes	1330-20-7	**0.00498**	0.00198	mg/kg	10.04.19 05.27		1
Total BTEX		**0.00498**	0.00198	mg/kg	10.04.19 05.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	10.04.19 05.27	
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.04.19 05.27	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-002	Date Collected:	10.01.19 10.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	10.03.19 13.30	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.19 20.50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.03.19 20.50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.03.19 20.50	
o-Terphenyl	84-15-1	111	%	70-135	10.03.19 20.50	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-002	Date Collected:	10.01.19 10.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.04.19 05.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.04.19 05.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	146	%	70-130	10.04.19 05.47	**
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.04.19 05.47	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-003	Date Collected:	10.01.19 11.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	10.03.19 13.37	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.03.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.03.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.03.19 21.10	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.03.19 21.10	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.03.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.03.19 21.10	
o-Terphenyl	84-15-1	112	%	70-135	10.03.19 21.10	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-003	Date Collected:	10.01.19 11.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.04.19 06.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.04.19 06.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.04.19 06.07	
4-Bromofluorobenzene	460-00-4	140	%	70-130	10.04.19 06.07	**

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-004	Date Collected:	10.01.19 11.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	10.03.19 13.43	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.19 21.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.19 21.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.19 21.29	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.03.19 21.29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.19 21.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.03.19 21.29	
o-Terphenyl	84-15-1	109	%	70-135	10.03.19 21.29	

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PLU 42H

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-004	Date Collected:	10.01.19 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.04.19 06.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.04.19 06.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.04.19 06.28	
4-Bromofluorobenzene	460-00-4	137	%	70-130	10.04.19 06.28	**

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Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-005	Date Collected:	10.01.19 10.33	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	10.03.19 13.50	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.03.19 22.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.03.19 22.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.03.19 22.08	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.03.19 22.08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.03.19 22.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.03.19 22.08	
o-Terphenyl	84-15-1	110	%	70-135	10.03.19 22.08	

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Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-005	Date Collected:	10.01.19 10.33	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.04.19 06.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.04.19 06.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.04.19 06.48	
4-Bromofluorobenzene	460-00-4	144	%	70-130	10.04.19 06.48	**

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Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-006	Date Collected:	10.01.19 10.48	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	10.03.19 14.09	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.03.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.03.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.03.19 22.27	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.03.19 22.27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.03.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.03.19 22.27	
o-Terphenyl	84-15-1	111	%	70-135	10.03.19 22.27	

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Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-006	Date Collected:	10.01.19 10.48	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.04.19 07.08	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.04.19 07.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	148	%	70-130	10.04.19 07.08	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.04.19 07.08	

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Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-007	Date Collected:	10.01.19 10.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	10.03.19 14.15	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.19 22.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.19 22.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.19 22.47	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.03.19 22.47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.19 22.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.03.19 22.47	
o-Terphenyl	84-15-1	110	%	70-135	10.03.19 22.47	

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Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-007	Date Collected:	10.01.19 10.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.04.19 07.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.04.19 07.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.04.19 07.28	
4-Bromofluorobenzene	460-00-4	141	%	70-130	10.04.19 07.28	**

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH04B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-008	Date Collected:	10.01.19 11.18	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.03.19 14.22	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.03.19 23.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.03.19 23.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.03.19 23.06	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.03.19 23.06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.03.19 23.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.03.19 23.06	
o-Terphenyl	84-15-1	110	%	70-135	10.03.19 23.06	

Certificate of Analytical Results 638706

LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH04B**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-008	Date Collected:	10.01.19 11.18	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.04.19 08.47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.04.19 08.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	140	%	70-130	10.04.19 08.47	**
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.04.19 08.47	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-009	Date Collected:	10.01.19 10.36	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.03.19 14.28	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.03.19 23.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.03.19 23.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.03.19 23.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.03.19 23.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.03.19 23.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.03.19 23.25	
o-Terphenyl	84-15-1	111	%	70-135	10.03.19 23.25	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-009	Date Collected:	10.01.19 10.36	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.04.19 09.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.04.19 09.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	10.04.19 09.07	
4-Bromofluorobenzene	460-00-4	134	%	70-130	10.04.19 09.07	**

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH02C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-010	Date Collected:	10.01.19 10.31	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.03.19 14.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.03.19 23.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.03.19 23.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.03.19 23.44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.03.19 23.44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.03.19 23.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.03.19 23.44	
o-Terphenyl	84-15-1	113	%	70-135	10.03.19 23.44	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH02C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-010	Date Collected:	10.01.19 10.31	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.04.19 09.27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.04.19 09.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	146	%	70-130	10.04.19 09.27	**
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.04.19 09.27	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-011	Date Collected:	10.01.19 11.06	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	10.03.19 14.41	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.04.19 00.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.04.19 00.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.04.19 00.03	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.04.19 00.03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.04.19 00.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.04.19 00.03	
o-Terphenyl	84-15-1	113	%	70-135	10.04.19 00.03	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-011	Date Collected:	10.01.19 11.06	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.04.19 09.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.04.19 09.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.04.19 09.47	
4-Bromofluorobenzene	460-00-4	138	%	70-130	10.04.19 09.47	**

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH04C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-012	Date Collected:	10.01.19 11.21	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	10.03.19 15.01	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.04.19 00.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.04.19 00.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.04.19 00.23	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.04.19 00.23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.04.19 00.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	10.04.19 00.23	
o-Terphenyl	84-15-1	117	%	70-135	10.04.19 00.23	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH04C**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-012	Date Collected:	10.01.19 11.21	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.04.19 10.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.04.19 10.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	143	%	70-130	10.04.19 10.07	**
1,4-Difluorobenzene	540-36-3	0	%	70-130	10.04.19 10.07	**

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01D**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-013	Date Collected:	10.01.19 10.39	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	10.03.19 15.07	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.04.19 00.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.04.19 00.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.04.19 00.42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.04.19 00.42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.04.19 00.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.04.19 00.42	
o-Terphenyl	84-15-1	116	%	70-135	10.04.19 00.42	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH01D**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-013	Date Collected:	10.01.19 10.39	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.04.19 10.28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.04.19 10.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	141	%	70-130	10.04.19 10.28	**
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.04.19 10.28	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03D**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-014	Date Collected:	10.01.19 11.09	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.03.19 12.40	Basis:	Wet Weight
Seq Number:	3103326			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	10.03.19 15.26	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	10.03.19 09.00	Basis:	Wet Weight
Seq Number:	3103317			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.04.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.04.19 01.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.04.19 01.01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.04.19 01.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.04.19 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.04.19 01.01	
o-Terphenyl	84-15-1	111	%	70-135	10.04.19 01.01	

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LT Environmental, Inc., Arvada, CO

PLU 42H

Sample Id:	**BH03D**	Matrix:	Soil	Date Received:	10.02.19 08.22
Lab Sample Id:	638706-014	Date Collected:	10.01.19 11.09	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.03.19 11.45	Basis:	Wet Weight
Seq Number:	3103334			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.04.19 10.48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.04.19 10.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.04.19 10.48	
4-Bromofluorobenzene	460-00-4	143	%	70-130	10.04.19 10.48	**

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 638706

LT Environmental, Inc.

PLU 42H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3103326 Matrix: Solid Date Prep: 10.03.19
MB Sample Id: 7687424-1-BLK LCS Sample Id: 7687424-1-BKS LCSD Sample Id: 7687424-1-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	200	214	107	213	107	90-110	0	20	mg/kg	10.03.19 12:58	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3103326 Matrix: Soil Date Prep: 10.03.19
Parent Sample Id: 638706-001 MS Sample Id: 638706-001 S MSD Sample Id: 638706-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.33	250	285	113	276	110	90-110	3	20	mg/kg	10.03.19 13:17	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3103326 Matrix: Soil Date Prep: 10.03.19
Parent Sample Id: 638706-011 MS Sample Id: 638706-011 S MSD Sample Id: 638706-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.864	252	280	111	276	110	90-110	1	20	mg/kg	10.03.19 14:48	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3103317 Matrix: Solid Date Prep: 10.03.19
MB Sample Id: 7687449-1-BLK LCS Sample Id: 7687449-1-BKS LCSD Sample Id: 7687449-1-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)	<15.0	1000	1040	104	1060	106	70-135	2	20	mg/kg	10.03.19 17:15	
Diesel Range Organics (DRO)	<15.0	1000	910	91	935	94	70-135	3	20	mg/kg	10.03.19 17:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	142	**	128		129		70-135	%	10.03.19 17:15
o-Terphenyl	146	**	104		101		70-135	%	10.03.19 17:15

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 638706

LT Environmental, Inc.

PLU 42H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3103317 Matrix: Soil Date Prep: 10.03.19
Parent Sample Id: 638717-001 MS Sample Id: 638717-001 S MSD Sample Id: 638717-001 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)	<15.0	998	1170	117	1190	119	70-135	2	20	mg/kg	10.03.19 18:14	
Diesel Range Organics (DRO)	20.3	998	1060	104	1080	106	70-135	2	20	mg/kg	10.03.19 18:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	146	**	149	**	70-135	%	10.03.19 18:14
o-Terphenyl	115		115		70-135	%	10.03.19 18:14

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3103334 Matrix: Solid Date Prep: 10.03.19
MB Sample Id: 7687381-1-BLK LCS Sample Id: 7687381-1-BKS LCSD Sample Id: 7687381-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0976	98	0.103	103	70-130	5	35	mg/kg	10.04.19 02:27	
Toluene	<0.00200	0.100	0.102	102	0.109	109	70-130	7	35	mg/kg	10.04.19 02:27	
Ethylbenzene	<0.00200	0.100	0.121	121	0.126	126	70-130	4	35	mg/kg	10.04.19 02:27	
m,p-Xylenes	<0.00400	0.200	0.245	123	0.252	126	70-130	3	35	mg/kg	10.04.19 02:27	
o-Xylene	<0.00200	0.100	0.127	127	0.128	128	70-130	1	35	mg/kg	10.04.19 02:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	74		87		90		70-130	%	10.04.19 02:27
4-Bromofluorobenzene	81		125		129		70-130	%	10.04.19 02:27

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3103334 Matrix: Soil Date Prep: 10.03.19
Parent Sample Id: 638706-001 MS Sample Id: 638706-001 S MSD Sample Id: 638706-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0893	90	0.0850	85	70-130	5	35	mg/kg	10.04.19 03:07	
Toluene	<0.00199	0.0994	0.0911	92	0.0876	88	70-130	4	35	mg/kg	10.04.19 03:07	
Ethylbenzene	<0.00199	0.0994	0.108	109	0.105	105	70-130	3	35	mg/kg	10.04.19 03:07	
m,p-Xylenes	0.00110	0.199	0.232	116	0.224	111	70-130	4	35	mg/kg	10.04.19 03:07	
o-Xylene	0.00498	0.0994	0.119	115	0.115	110	70-130	3	35	mg/kg	10.04.19 03:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		70-130	%	10.04.19 03:07
4-Bromofluorobenzene	145	**	147	**	70-130	%	10.04.19 03:07

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

XENCO LABORATORIES

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

Work Order No: 633704

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU 421H	Turn Around	
Project Number:	012919159	Routine	☑
P.O. Number:	Eddy County	Rush:	24hr 10/3/19
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.1	Thermometer ID	
Received Intact:	(Yes) No		TH1007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	14

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Work Order Notes / Sample Comments
BH01A	s	10/1/2019	10:30	1	1	x	x	x	discrete
BH02A	s	10/1/2019	10:45	1	1	x	x	x	discrete
BH03A	s	10/1/2019	11:00	1	1	x	x	x	discrete
BH04A	s	10/1/2019	11:15	1	1	x	x	x	discrete
BH01B	s	10/1/2019	10:33	2	1	x	x	x	discrete
BH02B	s	10/1/2019	10:48	2	1	x	x	x	discrete
BH03B	s	10/1/2019	11:03	2	1	x	x	x	discrete
BH04B	s	10/1/2019	11:18	2	1	x	x	x	discrete
BH01C	s	10/1/2019	10:36	3	1	x	x	x	discrete
BH02C	s	10/1/2019	10:31	3	1	x	x	x	discrete

ANALYSIS REQUEST

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

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

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			10/2/19 08:20	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 1038704

XENCO LABORATORIES

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

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	PLU 421H	Turn Around	
Project Number:	012919159	Routine	☑
P.O. Number:	Eddy County	Rush:	24hr
Sampler's Name:	William Mather	Due Date:	10/3/19

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Work Order Notes / Sample Comments
BH03C	s	10/1/2019	11:06	3	1	x	x	x	discrete
BH04C	s	10/1/2019	11:21	3	1	x	x	x	discrete
BH01D	s	10/1/2019	10:39	4	1	x	x	x	discrete
BH03D	s	10/1/2019	11:09	4	1	x	x	x	discrete

ANALYSIS REQUEST

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			10/2/19 08:20	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **49159**

Date/Time: 10/02/19 10:41
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 776446698583
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
638706-001	S	BH01A	10/01/19 10:30	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-001	S	BH01A	10/01/19 10:30	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-001	S	BH01A	10/01/19 10:30	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-002	S	BH02A	10/01/19 10:45	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-002	S	BH02A	10/01/19 10:45	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-002	S	BH02A	10/01/19 10:45	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-003	S	BH03A	10/01/19 11:00	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-003	S	BH03A	10/01/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-003	S	BH03A	10/01/19 11:00	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-004	S	BH04A	10/01/19 11:15	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-004	S	BH04A	10/01/19 11:15	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-004	S	BH04A	10/01/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-005	S	BH01B	10/01/19 10:33	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-005	S	BH01B	10/01/19 10:33	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-005	S	BH01B	10/01/19 10:33	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-006	S	BH02B	10/01/19 10:48	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-006	S	BH02B	10/01/19 10:48	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-006	S	BH02B	10/01/19 10:48	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-007	S	BH03B	10/01/19 10:30	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-007	S	BH03B	10/01/19 10:30	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-007	S	BH03B	10/01/19 10:30	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-008	S	BH04B	10/01/19 11:18	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-008	S	BH04B	10/01/19 11:18	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-008	S	BH04B	10/01/19 11:18	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-009	S	BH01C	10/01/19 10:36	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **49159**

Date/Time: 10/02/19 10:41
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776446698583

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
638706-009	S	BH01C	10/01/19 10:36	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-009	S	BH01C	10/01/19 10:36	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-010	S	BH02C	10/01/19 10:31	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-010	S	BH02C	10/01/19 10:31	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-010	S	BH02C	10/01/19 10:31	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-011	S	BH03C	10/01/19 11:06	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-011	S	BH03C	10/01/19 11:06	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-011	S	BH03C	10/01/19 11:06	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-012	S	BH04C	10/01/19 11:21	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-012	S	BH04C	10/01/19 11:21	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-012	S	BH04C	10/01/19 11:21	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-013	S	BH01D	10/01/19 10:39	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	
638706-013	S	BH01D	10/01/19 10:39	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-013	S	BH01D	10/01/19 10:39	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-014	S	BH03D	10/01/19 11:09	SW8021B	BTEX by EPA 8021B	10/03/19	10/15/19	JKR	BR4FBZ BZ BZME EBZ X	
638706-014	S	BH03D	10/01/19 11:09	E300_CL	Chloride by EPA 300	10/03/19	03/29/20	JKR	CL	
638706-014	S	BH03D	10/01/19 11:09	SW8015MOD_NM	TPH by SW8015 Mod	10/03/19	10/15/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 10/02/2019

Received By: Brianna Teel

Date Received: 10/03/2019 11:11

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 49159

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

Sent By: Elizabeth McClellan **Date Sent:** 10/02/2019 10:41 AM

Received By: Brianna Teel **Date Received:** 10/03/2019 11:11 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 10/03/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/02/2019 08:22:00 AM

Work Order #: 638706

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland.
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/02/2019

Checklist reviewed by: Jessica Kramer Date: 10/03/2019