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

January 25, 2020

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

RE: Closure Request
Poker Lake Unit 261
Remediation Permit Number 2RP-3947
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and excavation activities at the Poker Lake Unit (PLU) 261 (Site) in Unit J, Section 21, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil after a release of crude oil at the Site.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On October 18, 2016, a gasket on the heater-treater failed, causing approximately 20 barrels (bbls) of crude oil to release within the earthen berm around the process equipment. A vacuum truck was used to recover approximately 2 bbls of free-standing fluid. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on October 19, 2016, and was assigned Remediation Permit (RP) Number 2RP-3947 (Attachment 1).

Although the release occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Based on the site assessment activities and results of the soil sampling events, XTO is requesting no further action for this release.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be 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 United States Geological Survey (USGS) well 321214103525501, located approximately 1,005 feet north-northeast of the Site. The water well has a depth to groundwater of 339.5 feet, the total depth is not specified. Ground surface elevation at the water well location is 3,374 feet above mean sea level (AMSL), which is approximately 49 feet higher in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 662 feet south 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;
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total petroleum hydrocarbons (TPH): 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

On March 3, 2018, LTE personnel inspected the Site to evaluate the release extent. Five preliminary soil samples (SS1 through SS5) were collected within and around the release area to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

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.

Between August and November 2019, LTE personnel returned to the Site to oversee excavation and site assessment activities.

Impacted soil was excavated from the release area as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Impacted soil was excavated to a depth ranging from 1 foot to 2.5 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW08 and SW01A were collected from the sidewalls of the excavation from depths ranging from the ground surface to 2 feet bgs. Composite soil samples FS01 through FS06, FS01A, FS01B, FS02A, FS04A, and FS05A were collected from the floor of the excavation from depths ranging from 1 foot to 2.5 feet bgs. The excavation extent and excavation soil sample locations are depicted on Figure 3.

Boreholes were advanced via hand auger at three locations around the process equipment to confirm the lateral and vertical extent of impacted soil. Boreholes BH01 through BH03 were advanced to a depth of 2.5 feet bgs. Two delineation soil samples were collected from each borehole from depths of 1 foot and 2.5 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil sample locations are depicted on Figure 4.

The excavation and delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The excavation measured approximately 1,300 square feet in area and was completed to depths ranging from 1 foot bgs to 2.5 feet bgs. A total of approximately 100 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 Landfill located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS2, SS3, and SS4. Laboratory analytical results indicated that GRO/DRO and TPH concentrations exceeded the Closure Criteria in preliminary soil samples SS1 and SS5, collected at 0.5 feet bgs. Based on field screening results and laboratory analytical results for the preliminary soil samples, excavation and delineation of impacted soil was conducted.

Laboratory analytical results for initial excavation soil samples SW03, SW04, FS01, FS01A, FS04, and FS05 indicated that TPH and/or GRO/DRO concentrations exceeded the Closure Criteria. Additional impacted soil was removed from the excavation and laboratory analytical results for excavation soil samples SW01A, SW02, SW05 through SW08, FS01B, FS02A, FS03, FS04A, FS05A, and FS06, collected from the final excavation extent, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for delineation soil samples BH01/BH01A through BH03/BH03A indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Impacted soil was excavated from the Site to address the October 18, 2016, release of crude oil within the process equipment containment berm. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Delineation soil sampling was completed around the process equipment to confirm the absence of additional impacted soil. Laboratory analytical results for the delineation soil samples indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the excavation and delineation soil sample analytical results, no further remediation was required.

Initial response efforts, natural attenuation, and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Number 2RP-3947. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included in Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

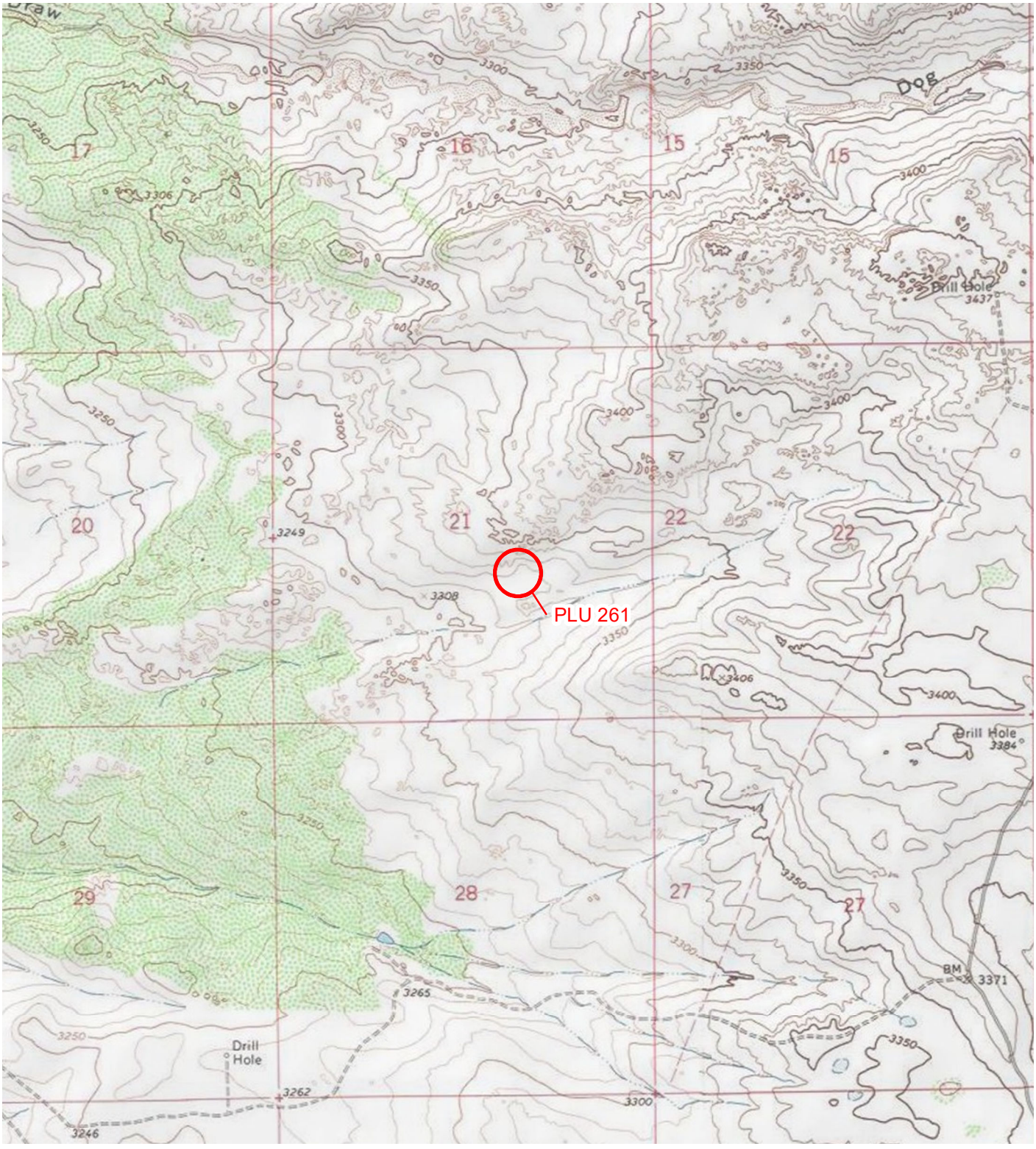
Aimee Cole
Project Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management
Mike Bratcher, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-3947)
Attachment 2	Lithologic / Soil Sample Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-3947

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918083_PLU-261\012918083_FIG01_SL_2018_3947.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
GRO+DRO: 1,000 mg/kg
TPH = 2,500 mg/kg
Cl = 20,000 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE REGULATORY CLOSURE CRITERIA

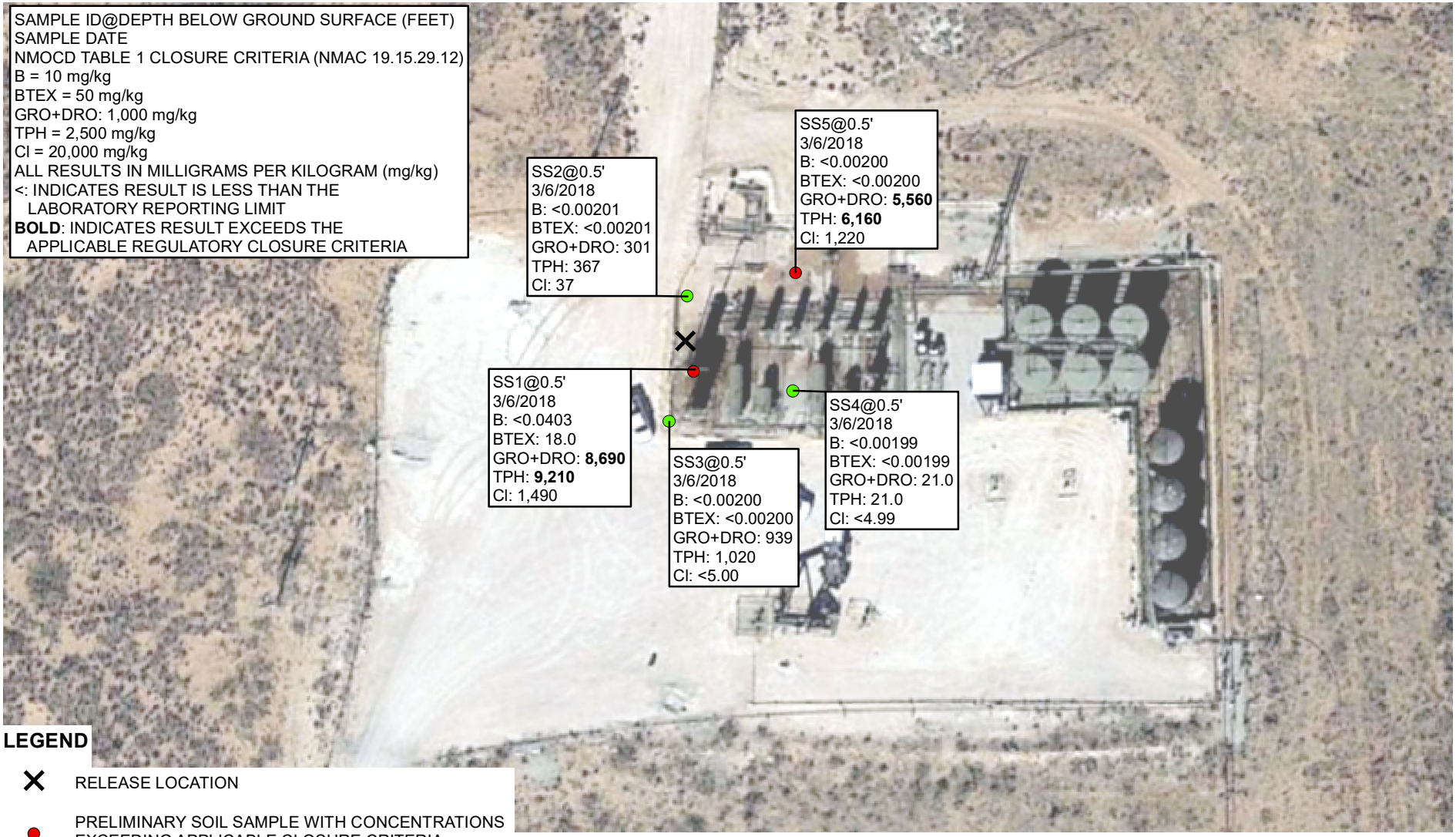


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3947

0 60 120
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918083_PLU-261\012918083_FIG02_PRELIMINARY_3947.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
GRO+DRO: 1,000 mg/kg
TPH = 2,500 mg/kg
Cl = 20,000 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE REGULATORY CLOSURE CRITERIA

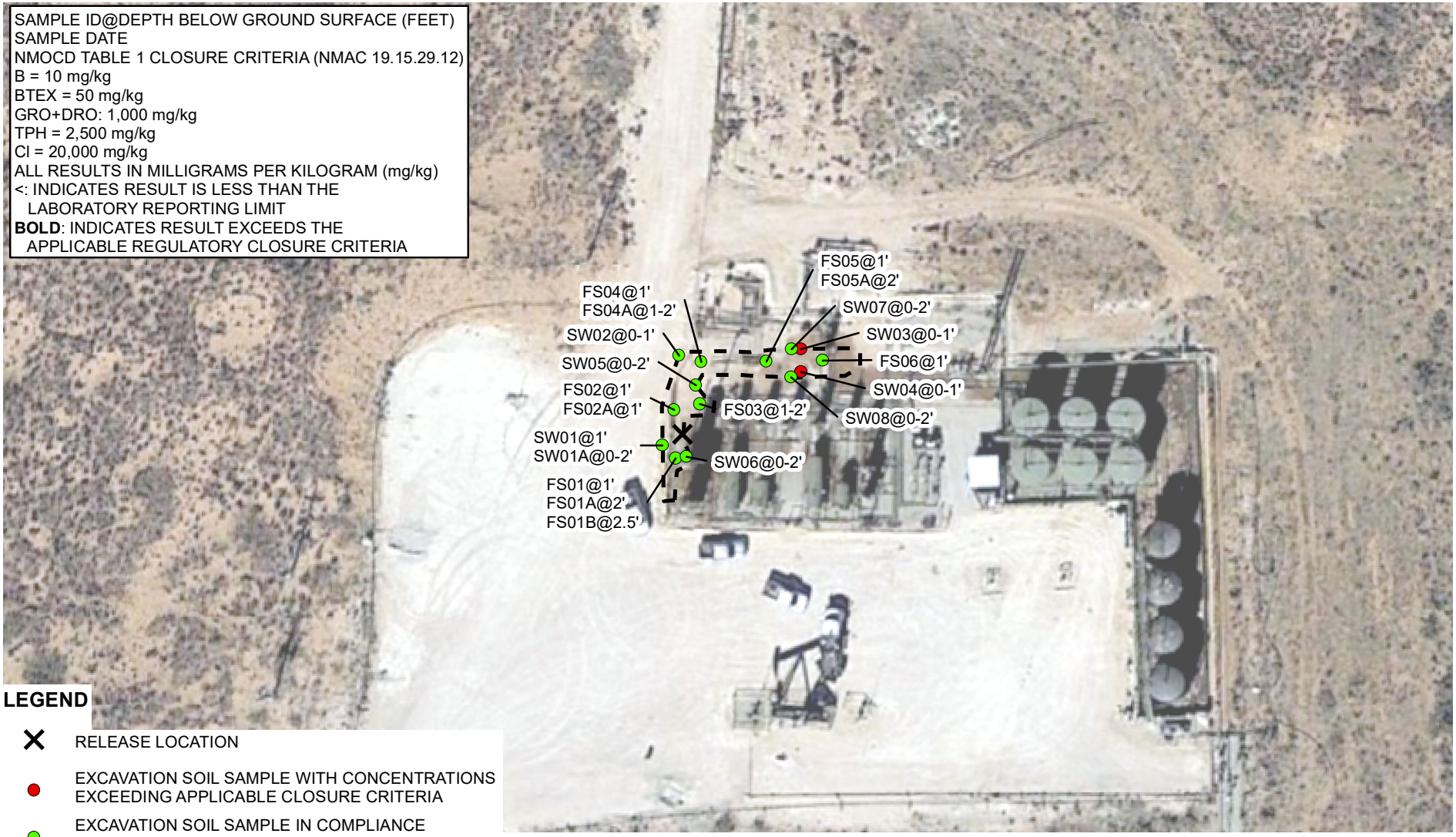


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

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

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3947

0 60 120
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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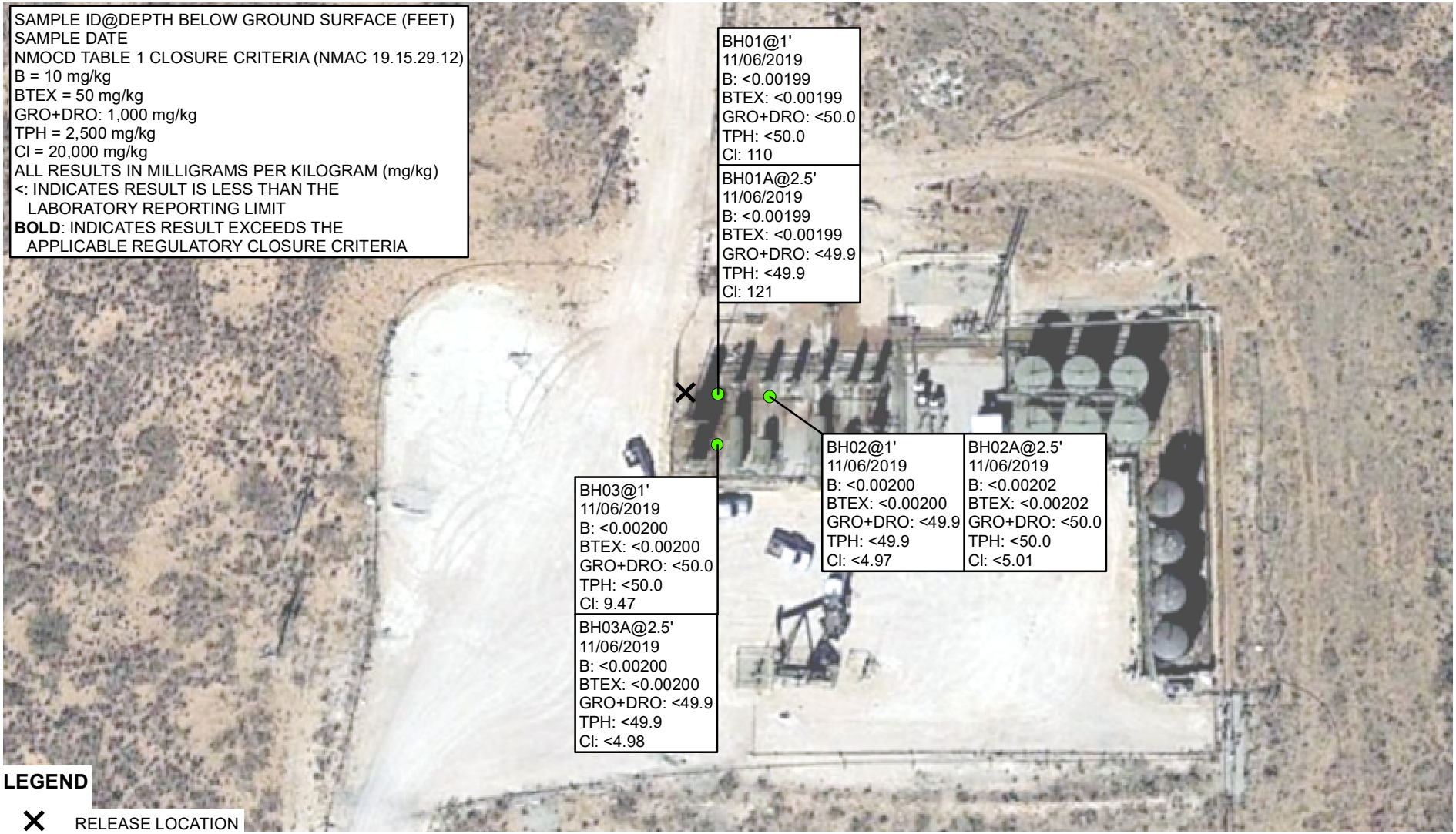

LEGEND

✕ RELEASE LOCATION

● DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120

Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3947

FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT 261
UNIT J SEC 21 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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TABLE 1
SOIL ANALYTICAL RESULTS

POKER LANE UNIT 261
REMEDIATION PERMIT NUMBER 2RP-3974
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	03/06/2018	<0.0403	0.889	2.34	14.7	18	1,520	7,170	522	**8,690**	**9,210**	1,490
SS2	0.5	03/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	301	65.5	301	367	36.8
SS3	0.5	03/06/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	939	85.1	939	1,020	<5.00
SS4	0.5	03/06/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	21	<15.0	21.0	21.0	<4.99
SS5	0.5	03/06/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<74.9	5,560	602	**5,560**	**6,160**	1,220
SW01	1	08/13/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<24.9	999	135	999	1,130	111
SW01A	0-2	08/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<25.0	581	151	581	732	30.4
SW02	0-1	08/26/2019	<0.00201	<0.00201	<0.00201	0.00364	0.00364	<24.9	250	68.1	250	318	254
SW03	0-1	08/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<25.0	1,060	276	**1,060**	1,340	154
SW04	0-2	08/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<25.0	2,720	377	**2,720**	**3,100**	534
SW05	0-2	08/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<24.9	595	237	595	832	235
SW06	0-2	08/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<24.9	384	117	384	501	88.5
SW07	0-2	09/18/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	199	<50.0	199	199	224
SW08	0-2	09/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	788	106	788	894	768
FS01	1	08/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<25.0	3,460	275	**3,460**	**3,740**	319
FS01A	2	08/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<24.9	1,200	198	**1,200**	1,400	73.3
FS01B	2.5	09/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	227	<49.9	227	227	35.3
FS02	1	08/13/2019	<0.00200	<0.00200	<0.00200	0.00313	0.00313	<25.0	847	84.8	847	932	167
FS02A	1	08/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<24.9	578	120	578	698	148
FS03	1-2	08/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<25.0	92.2	<25.0	92.2	92.2	122
FS04	1	08/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<25.0	1,200	226	**1,200**	1,430	723
FS04A	1-2	09/18/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	67.9	<49.9	67.9	67.9	387
FS05	1	08/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<25.0	1,510	294	**1,510**	1,800	795
FS05A	2	09/18/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	65.3	<50.0	65.3	65.3	254
FS06	1	08/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<24.9	943	173	943	1,120	44.3
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LANE UNIT 261
REMEDIATION PERMIT NUMBER 2RP-3974
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
BH01	1	11/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	110
BH01A	2.5	11/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	121
BH02	1	11/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
BH02A	2.5	11/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
BH03	1	11/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	9.47
BH03A	2.5	11/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
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

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-3947)

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 19 2016
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1629556325 2160737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU 261	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-34877

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/***South Line***	Feet from the	***East***/West Line	County
J	21	24S	30E		1980	1880		Eddy

Latitude: 32.20171 **Longitude**: 103.88377

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 20 barrels	Volume Recovered: 2 barrels
Source of Release: Failed Gasket on Heater Treater	Date and Hour of Occurrence: 10-18-16 @ 1:00pm	Date and Hour of Discovery: 10-18-16 @ 1:25pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Lease operator reported a release at the PLU 261 due to a failed heater treater gasket. The fluid was contained inside an earth berm around production equipment. A vacuum truck was called to the location and was able to recover 2 barrels of oil from the ground surface.

Describe Area Affected and Cleanup Action Taken.*
A vacuum truck was called to the location and was able to recover 2 barrels of oil from the ground surface.

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

Signature: Bradley Blevins	OIL CONSERVATION DIVISION
Printed Name: Bradley Blevins	Approved by Environmental Specialist: Signed By Mike Bratcher
Title: Assistant Remediation Foreman	Approval Date: 10/19/16 Expiration Date: N/A
E-mail Address: bblevins@basspet.com	Conditions of Approval: Attached ☐
Date: 10/19/2016 Phone: 432-214-3704	Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 11/26/16

* Attach Additional Sheets If Necessary

2RP-3947

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-3947
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-3947
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.20171 Longitude W -103.88377
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU 261	Site Type: Production Well Facility
Date Release Discovered: 10/18/2016	API# *(if applicable):* 30-015-34877

Unit Letter	Section	Township	Range	County
J	21	24S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls): 20	Volume Recovered (bbls): 2
☐ Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The lease operator reported a release at the PLU 261 due to a failed heater-treater gasket. The fluid was contained inside an earth berm around production equipment. A vacuum truck was called to the location and was able to recover 2 barrels of oil from the ground surface.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3947
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was less than 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
NA

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:
N/A

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: _____ Date: 1-25-2020

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-3947
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-3947
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: 1-25-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1629556325
District RP	2RP-3947
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: 1-25-2020

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: Bradford Billings Date: 03/02/2020

Printed Name: Bradford Billings Title: E.Spec.A.

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS

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

Identifier:	Date:
BH01	11/6/19
Project Name:	**RP Number:**
PLU 261	2RP-3947

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: B.B.	Method: Hand Auger
Lat/Long:	Field Screening: CHLORIDES, PID.
Hole Diameter: 3.5"	Total Depth: 2.5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		CCHE	0-1' CALICHE, tan - light brown, moist, poorly consolidated, some brown stain, trace H/C odor, fill.
M	<128	0.3	N	BH01	1	1'	SP	1'-2.5' SAND, brown - red, moist, poorly graded, fine - medium grain, no stain, no odor.
M	<128	0.2	N	BH01A	2	2.5'		
					3			TD @ 2.5'
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
BH02	11/6/19
Project Name:	**RP Number:**
PLU 261	2RP-3947
Logged By: B.B.	**Method:** Hand Auger
Hole Diameter: 3.5"	**Total Depth:** 2.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CHLORIDES, PID.

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		CCHE	0-1' CALICHE, tan-light brown, moist, poorly consolidated, no stain, no odor, fill.
M	<128	0.3	N	BH02	1	1'	SP	1'-2.5' SAND, brown-red, moist, poorly graded, fine-medium grain, no stain, no odor.
M	<128	0.1	N	BH02A	2	2.5'		
					3			TD @ 2.5'
					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: 11/6/19
Project Name: PLU 261	RP Number: 2RP-3947
Logged By: B.B.	Method: Hand Auger
Hole Diameter: 3.5"	Total Depth: 2.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CHLORIDES, PID.

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		CCHE	0-1' CALICHE, tan - light brown, moist, poorly consolidated, no stain, no odor, fill.
M	<128	0.2	N	BH03	1	1'	SP	1'-2.5' SAND, brown - red, moist, poorly graded, fine - medium grain, no stain, no odor.
M	<128	0.1	N	BH03A	2	2.5		TD @ 2.5'
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

PHOTOGRAPHIC LOG

Photograph 1: East facing view of excavation.

Photograph 2: East facing view of excavation.

Photograph 3: South facing view of excavation.

Photograph 4: West facing view of excavation.

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 578600

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU #261 2RP-2947

15-MAR-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

15-MAR-18

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

Reference: XENCO Report No(s): **578600**
PLU #261 2RP-2947
Project Address: NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 578600. 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. 578600 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 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	03-06-18 14:15	6 In	578600-001
SS2	S	03-06-18 14:20	6 In	578600-002
SS3	S	03-06-18 14:30	6 In	578600-003
SS4	S	03-06-18 14:35	6 In	578600-004
SS5	S	03-06-18 14:40	6 In	578600-005

Client Name: LT Environmental, Inc.

Project Name: PLU #261 2RP-2947

Project ID:
Work Order Number(s): *578600*

Report Date: *15-MAR-18*
Date Received: *03/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3043702 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 578600-001.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 578600

LT Environmental, Inc., Arvada, CO

Project Name: PLU #261 2RP-2947

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Mar-07-18 03:08 pm
Report Date: 15-MAR-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	578600-001		578600-002		578600-003		578600-004		578600-005	
	Field Id:	SS1		SS2		SS3		SS4		SS5	
	Depth:	6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-18 14:15		Mar-06-18 14:20		Mar-06-18 14:30		Mar-06-18 14:35		Mar-06-18 14:40	
BTEX by EPA 8021B	***Extracted:***	Mar-14-18 08:00		Mar-14-18 08:00		Mar-14-18 08:00		Mar-14-18 08:00		Mar-14-18 08:00	
	Analyzed:	Mar-14-18 12:41		Mar-14-18 11:00		Mar-14-18 10:41		Mar-14-18 10:22		Mar-14-18 10:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0403	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		0.889	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		2.34	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		9.91	0.0806	<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		4.83	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		14.7	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		18.0	0.0403	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-13-18 16:30		Mar-13-18 16:30		Mar-13-18 16:30		Mar-13-18 16:30		Mar-13-18 16:30	
	Analyzed:	Mar-14-18 01:49		Mar-14-18 01:54		Mar-14-18 02:00		Mar-14-18 02:05		Mar-14-18 02:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1490	25.0	36.8	5.00	<5.00	5.00	<4.99	4.99	1220	4.95
TPH by SW8015 Mod	***Extracted:***	Mar-13-18 16:00		Mar-13-18 16:00		Mar-13-18 16:00		Mar-13-18 16:00		Mar-13-18 16:00	
	Analyzed:	Mar-14-18 06:23		Mar-14-18 06:50		Mar-14-18 07:15		Mar-14-18 07:40		Mar-14-18 08:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		1520	74.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<74.9	74.9
Diesel Range Organics (DRO)		7170	74.9	301	15.0	939	15.0	21.0	15.0	5560	74.9
Oil Range Hydrocarbons (ORO)		522	74.9	65.5	15.0	85.1	15.0	<15.0	15.0	602	74.9
Total TPH		9210	74.9	367	15.0	1020	15.0	21.0	15.0	6160	74.9

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-001	Date Collected:	03.06.18 14.15	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.13.18 16.30	Basis:	Wet Weight
Seq Number:	3043636				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1490**	25.0	mg/kg	03.14.18 01.49		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.13.18 16.00	Basis:	Wet Weight
Seq Number:	3043650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1520**	74.9	mg/kg	03.14.18 06.23		5
Diesel Range Organics (DRO)	C10C28DRO	**7170**	74.9	mg/kg	03.14.18 06.23		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**522**	74.9	mg/kg	03.14.18 06.23		5
Total TPH	PHC635	**9210**	74.9	mg/kg	03.14.18 06.23		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	03.14.18 06.23	
o-Terphenyl	84-15-1	105	%	70-135	03.14.18 06.23	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-001	Date Collected:	03.06.18 14.15	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.18 08.00	Basis:	Wet Weight
Seq Number:	3043702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0403	0.0403	mg/kg	03.14.18 12.41	U	20
Toluene	108-88-3	**0.889**	0.0403	mg/kg	03.14.18 12.41		20
Ethylbenzene	100-41-4	**2.34**	0.0403	mg/kg	03.14.18 12.41		20
m,p-Xylenes	179601-23-1	**9.91**	0.0806	mg/kg	03.14.18 12.41		20
o-Xylene	95-47-6	**4.83**	0.0403	mg/kg	03.14.18 12.41		20
Total Xylenes	1330-20-7	**14.7**	0.0403	mg/kg	03.14.18 12.41		20
Total BTEX		**18.0**	0.0403	mg/kg	03.14.18 12.41		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.14.18 12.41	
4-Bromofluorobenzene	460-00-4	161	%	70-130	03.14.18 12.41	**

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-002	Date Collected:	03.06.18 14.20	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.13.18 16.30	Basis:	Wet Weight
Seq Number:	3043636				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**36.8**	5.00	mg/kg	03.14.18 01.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.13.18 16.00	Basis:	Wet Weight
Seq Number:	3043650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.14.18 06.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	**301**	15.0	mg/kg	03.14.18 06.50		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**65.5**	15.0	mg/kg	03.14.18 06.50		1
Total TPH	PHC635	**367**	15.0	mg/kg	03.14.18 06.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.14.18 06.50	
o-Terphenyl	84-15-1	100	%	70-135	03.14.18 06.50	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-002	Date Collected:	03.06.18 14.20	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.18 08.00	Basis:	Wet Weight
Seq Number:	3043702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.14.18 11.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.14.18 11.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	03.14.18 11.00	
1,4-Difluorobenzene	540-36-3	75	%	70-130	03.14.18 11.00	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-003	Date Collected:	03.06.18 14.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.13.18 16.30	Basis:	Wet Weight
Seq Number:	3043636				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.14.18 02.00	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.13.18 16.00	Basis:	Wet Weight
Seq Number:	3043650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.14.18 07.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**939**	15.0	mg/kg	03.14.18 07.15		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**85.1**	15.0	mg/kg	03.14.18 07.15		1
Total TPH	PHC635	**1020**	15.0	mg/kg	03.14.18 07.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.14.18 07.15	
o-Terphenyl	84-15-1	121	%	70-135	03.14.18 07.15	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-003	Date Collected:	03.06.18 14.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.18 08.00	Basis:	Wet Weight
Seq Number:	3043702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.14.18 10.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.18 10.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.14.18 10.41	
1,4-Difluorobenzene	540-36-3	81	%	70-130	03.14.18 10.41	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-004	Date Collected:	03.06.18 14.35	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.13.18 16.30	Basis:	Wet Weight
Seq Number:	3043636				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.14.18 02.05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.13.18 16.00	Basis:	Wet Weight
Seq Number:	3043650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.14.18 07.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**21.0**	15.0	mg/kg	03.14.18 07.40		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.14.18 07.40	U	1
Total TPH	PHC635	**21.0**	15.0	mg/kg	03.14.18 07.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.14.18 07.40	
o-Terphenyl	84-15-1	105	%	70-135	03.14.18 07.40	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-004	Date Collected:	03.06.18 14.35	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.18 08.00	Basis:	Wet Weight
Seq Number:	3043702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.14.18 10.22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.14.18 10.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	03.14.18 10.22	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.14.18 10.22	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-005	Date Collected:	03.06.18 14.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.13.18 16.30	Basis:	Wet Weight
Seq Number:	3043636				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1220**	4.95	mg/kg	03.14.18 02.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.13.18 16.00	Basis:	Wet Weight
Seq Number:	3043650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<74.9	74.9	mg/kg	03.14.18 08.07	U	5
Diesel Range Organics (DRO)	C10C28DRO	**5560**	74.9	mg/kg	03.14.18 08.07		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**602**	74.9	mg/kg	03.14.18 08.07		5
Total TPH	PHC635	**6160**	74.9	mg/kg	03.14.18 08.07		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.14.18 08.07	
o-Terphenyl	84-15-1	73	%	70-135	03.14.18 08.07	

Certificate of Analytical Results 578600

LT Environmental, Inc., Arvada, CO

PLU #261 2RP-2947

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578600-005	Date Collected:	03.06.18 14.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.14.18 08.00	Basis:	Wet Weight
Seq Number:	3043702				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.14.18 10.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.14.18 10.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	03.14.18 10.03	
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.14.18 10.03	

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 578600

LT Environmental, Inc.

PLU #261 2RP-2947

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043636 Matrix: Solid Date Prep: 03.13.18
MB Sample Id: 7640733-1-BLK LCS Sample Id: 7640733-1-BKS LCSD Sample Id: 7640733-1-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	255	102	275	110	90-110	8	20	mg/kg	03.13.18 23:42	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043636 Matrix: Soil Date Prep: 03.13.18
Parent Sample Id: 578597-004 MS Sample Id: 578597-004 S MSD Sample Id: 578597-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	682	248	937	103	946	106	90-110	1	20	mg/kg	03.13.18 23:58	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3043636 Matrix: Soil Date Prep: 03.13.18
Parent Sample Id: 578599-004 MS Sample Id: 578599-004 S MSD Sample Id: 578599-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.95	248	250	101	285	115	90-110	13	20	mg/kg	03.14.18 01:12	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3043650 Matrix: Solid Date Prep: 03.13.18
MB Sample Id: 7640764-1-BLK LCS Sample Id: 7640764-1-BKS LCSD Sample Id: 7640764-1-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	1050	105	978	98	70-135	7	35	mg/kg	03.13.18 21:19	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1010	101	70-135	8	35	mg/kg	03.13.18 21:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		118		110		70-135	%	03.13.18 21:19
o-Terphenyl	124		117		109		70-135	%	03.13.18 21:19

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

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

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 578600

LT Environmental, Inc.

PLU #261 2RP-2947

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3043650 Matrix: Soil Date Prep: 03.13.18
Parent Sample Id: 578597-001 MS Sample Id: 578597-001 S MSD Sample Id: 578597-001 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	999	1030	103	1050	105	70-135	2	35	mg/kg	03.13.18 22:37	
Diesel Range Organics (DRO)	281	999	1290	101	1290	101	70-135	0	35	mg/kg	03.13.18 22:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		115		70-135	%	03.13.18 22:37
o-Terphenyl	113		114		70-135	%	03.13.18 22:37

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043702 Matrix: Solid Date Prep: 03.14.18
MB Sample Id: 7640790-1-BLK LCS Sample Id: 7640790-1-BKS LCSD Sample Id: 7640790-1-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	0.104	104	0.105	105	70-130	1	35	mg/kg	03.14.18 07:10	
Toluene	<0.00200	0.100	0.112	112	0.112	112	70-130	0	35	mg/kg	03.14.18 07:10	
Ethylbenzene	<0.00200	0.100	0.128	128	0.129	129	70-130	1	35	mg/kg	03.14.18 07:10	
m,p-Xylenes	<0.00401	0.200	0.253	127	0.254	127	70-130	0	35	mg/kg	03.14.18 07:10	
o-Xylene	<0.00200	0.100	0.124	124	0.124	124	70-130	0	35	mg/kg	03.14.18 07:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		89		93		70-130	%	03.14.18 07:10
4-Bromofluorobenzene	104		123		119		70-130	%	03.14.18 07:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3043702 Matrix: Soil Date Prep: 03.14.18
Parent Sample Id: 578599-002 MS Sample Id: 578599-002 S MSD Sample Id: 578599-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0729	73	0.0868	87	70-130	17	35	mg/kg	03.14.18 13:00	
Toluene	<0.00200	0.100	0.0774	77	0.0917	92	70-130	17	35	mg/kg	03.14.18 13:00	
Ethylbenzene	<0.00200	0.100	0.0903	90	0.104	104	70-130	14	35	mg/kg	03.14.18 13:00	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.205	103	70-130	14	35	mg/kg	03.14.18 13:00	
o-Xylene	<0.00200	0.100	0.0945	95	0.101	101	70-130	7	35	mg/kg	03.14.18 13:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		84		70-130	%	03.14.18 13:00
4-Bromofluorobenzene	112		119		70-130	%	03.14.18 13:00

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

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

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

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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Xenco Quote #

Xenco Job # 578600

Client / Reporting Information

Company Name / Branch: LTE / Permian

Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705

Email: Abaker@ltenv.com

Phone No: 432-704-5178

Project Contact: Adrian Baker

Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: PLU #261 2RP-2947

Project Location: NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 30-015-34877

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Btex EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Field Comments
1	SS1	6"	3/6/18	1415	S	1									X	X	X	
2	SS2			1420											X	X	X	
3	SS3			1430											X	X	X	
4	SS4			1435											X	X	X	
5	SS5			1440											X	X	X	
6																		
7																		
8																		
9																		
10																		

Temp: 2.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 2.4

Turnaround Time (Business days)

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

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

Data Deliverable Information

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

FED-EX / UPS: Tracking #

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

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Aaron Williamson	3/6/18 1530	1	2	3/6 1530	2
3		3/7 14:50	3	4	3-7-18 15:08	4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/07/2018 03:08:00 PM

Work Order #: 578600

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

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**No**	TPH received in bulk jars
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 03/08/2018

Connie Hernandez

Checklist reviewed by: Jessica Kramer Date: 03/08/2018

Jessica Kramer

Analytical Report 633950

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 261 (2RP-3747)

012918083

15-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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

15-AUG-19

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

Reference: XENCO Report No(s): **633950**
PLU 261 (2RP-3747)
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) 633950. 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. 633950 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 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	08-13-19 09:45	1 ft	633950-001
FS02	S	08-13-19 09:50	1 ft	633950-002
SW01	S	08-13-19 10:00	1 ft	633950-003

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3098657 BTEX by EPA 8021B

Lab Sample ID 633950-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 633950-001, -002, -003.

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

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

Certificate of Analysis Summary 633950

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261 (2RP-3747)

Project Id: 012918083
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-14-19 10:47 am
Report Date: 15-AUG-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	633950-001		633950-002		633950-003			
	Field Id:	FS01		FS02		SW01			
	Depth:	1- ft		1- ft		1- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Aug-13-19 09:45		Aug-13-19 09:50		Aug-13-19 10:00			
BTEX by EPA 8021B	***Extracted:***	Aug-14-19 12:00		Aug-14-19 12:00		Aug-14-19 12:00			
	Analyzed:	Aug-15-19 12:55		Aug-15-19 13:15		Aug-15-19 13:35			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199		
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199		
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199		
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398		
o-Xylene		<0.00200	0.00200	0.00313	0.00200	<0.00199	0.00199		
Total Xylenes		<0.00200	0.00200	0.00313	0.00200	<0.00199	0.00199		
Total BTEX		<0.00200	0.00200	0.00313	0.00200	<0.00199	0.00199		
Chloride by EPA 300	***Extracted:***	Aug-14-19 12:00		Aug-14-19 12:00		Aug-14-19 12:00			
	Analyzed:	Aug-14-19 14:12		Aug-14-19 14:31		Aug-14-19 14:37			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		319	4.96	167	4.99	111	5.03		
TPH by SW8015 Mod	***Extracted:***	Aug-14-19 15:00		Aug-14-19 15:00		Aug-14-19 15:00			
	Analyzed:	Aug-15-19 03:55		Aug-15-19 04:14		Aug-15-19 04:34			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<25.0	25.0	<25.0	25.0	<24.9	24.9		
Diesel Range Organics (DRO)		3460	25.0	847	25.0	999	24.9		
Motor Oil Range Hydrocarbons (MRO)		275	25.0	84.8	25.0	135	24.9		
Total TPH		3740	25.0	932	25.0	1130	24.9		
Total GRO-DRO		3460	25.0	847	25.0	999	24.9		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-001	Date Collected:	08.13.19 09.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**319**	4.96	mg/kg	08.14.19 14.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.19 15.00	Basis:	Wet Weight
Seq Number:	3098650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.15.19 03.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	**3460**	25.0	mg/kg	08.15.19 03.55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**275**	25.0	mg/kg	08.15.19 03.55		1
Total TPH	PHC635	**3740**	25.0	mg/kg	08.15.19 03.55		1
Total GRO-DRO	PHC628	**3460**	25.0	mg/kg	08.15.19 03.55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.15.19 03.55	
o-Terphenyl	84-15-1	127	%	70-135	08.15.19 03.55	

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-001	Date Collected:	08.13.19 09.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	AMB	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.19 12.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.19 12.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	08.15.19 12.55	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.15.19 12.55	

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-002	Date Collected:	08.13.19 09.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**167**	4.99	mg/kg	08.14.19 14.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.19 15.00	Basis:	Wet Weight
Seq Number:	3098650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.15.19 04.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**847**	25.0	mg/kg	08.15.19 04.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**84.8**	25.0	mg/kg	08.15.19 04.14		1
Total TPH	PHC635	**932**	25.0	mg/kg	08.15.19 04.14		1
Total GRO-DRO	PHC628	**847**	25.0	mg/kg	08.15.19 04.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	08.15.19 04.14	
o-Terphenyl	84-15-1	116	%	70-135	08.15.19 04.14	

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-002	Date Collected:	08.13.19 09.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	AMB	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.19 13.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.19 13.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.19 13.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.19 13.15	U	1
o-Xylene	95-47-6	**0.00313**	0.00200	mg/kg	08.15.19 13.15		1
Total Xylenes	1330-20-7	**0.00313**	0.00200	mg/kg	08.15.19 13.15		1
Total BTEX		**0.00313**	0.00200	mg/kg	08.15.19 13.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.15.19 13.15	
4-Bromofluorobenzene	460-00-4	121	%	70-130	08.15.19 13.15	

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-003	Date Collected:	08.13.19 10.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098607				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**111**	5.03	mg/kg	08.14.19 14.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.14.19 15.00	Basis:	Wet Weight
Seq Number:	3098650				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.15.19 04.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	**999**	24.9	mg/kg	08.15.19 04.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**135**	24.9	mg/kg	08.15.19 04.34		1
Total TPH	PHC635	**1130**	24.9	mg/kg	08.15.19 04.34		1
Total GRO-DRO	PHC628	**999**	24.9	mg/kg	08.15.19 04.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.15.19 04.34	
o-Terphenyl	84-15-1	97	%	70-135	08.15.19 04.34	

Certificate of Analytical Results 633950

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3747)

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	08.14.19 10.47
Lab Sample Id:	633950-003	Date Collected:	08.13.19 10.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	AMB	Date Prep:	08.14.19 12.00	Basis:	Wet Weight
Seq Number:	3098657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.19 13.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.19 13.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.15.19 13.35	
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.15.19 13.35	

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 633950

LT Environmental, Inc.

PLU 261 (2RP-3747)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098607 Matrix: Solid Date Prep: 08.14.19
MB Sample Id: 7684210-1-BLK LCS Sample Id: 7684210-1-BKS LCSD Sample Id: 7684210-1-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	08.14.19 13:59	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098607 Matrix: Soil Date Prep: 08.14.19
Parent Sample Id: 633950-001 MS Sample Id: 633950-001 S MSD Sample Id: 633950-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	319	248	556	96	556	96	90-110	0	20	mg/kg	08.14.19 14:18	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098607 Matrix: Soil Date Prep: 08.14.19
Parent Sample Id: 633961-007 MS Sample Id: 633961-007 S MSD Sample Id: 633961-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.73	253	283	109	283	109	90-110	0	20	mg/kg	08.14.19 15:59	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098650 Matrix: Solid Date Prep: 08.14.19
MB Sample Id: 7684239-1-BLK LCS Sample Id: 7684239-1-BKS LCSD Sample Id: 7684239-1-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	1060	106	1050	105	70-135	1	20	mg/kg	08.14.19 21:09	
Diesel Range Organics (DRO)	<25.0	1000	995	100	994	99	70-135	0	20	mg/kg	08.14.19 21:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		117		116		70-135	%	08.14.19 21:09
o-Terphenyl	99		104		103		70-135	%	08.14.19 21:09

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 633950

LT Environmental, Inc.

PLU 261 (2RP-3747)

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098650 Matrix: Soil Date Prep: 08.14.19
Parent Sample Id: 633957-001 MS Sample Id: 633957-001 S MSD Sample Id: 633957-001 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	999	987	99	979	98	70-135	1	20	mg/kg	08.14.19 22:07	
Diesel Range Organics (DRO)	36.3	999	981	95	975	94	70-135	1	20	mg/kg	08.14.19 22:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		109		70-135	%	08.14.19 22:07
o-Terphenyl	92		93		70-135	%	08.14.19 22:07

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098657 Matrix: Solid Date Prep: 08.14.19
MB Sample Id: 7684207-1-BLK LCS Sample Id: 7684207-1-BKS LCSD Sample Id: 7684207-1-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	0.0952	95	0.0958	96	70-130	1	35	mg/kg	08.14.19 22:01	
Toluene	0.000550	0.100	0.0888	89	0.0893	89	70-130	1	35	mg/kg	08.14.19 22:01	
Ethylbenzene	<0.00200	0.100	0.0886	89	0.0895	90	70-130	1	35	mg/kg	08.14.19 22:01	
m,p-Xylenes	<0.00101	0.200	0.175	88	0.178	89	70-130	2	35	mg/kg	08.14.19 22:01	
o-Xylene	<0.000344	0.100	0.0925	93	0.0941	94	70-130	2	35	mg/kg	08.14.19 22:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		99		70-130	%	08.14.19 22:01
4-Bromofluorobenzene	108		103		106		70-130	%	08.14.19 22:01

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098657 Matrix: Soil Date Prep: 08.14.19
Parent Sample Id: 633950-001 MS Sample Id: 633950-001 S MSD Sample Id: 633950-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0798	81	0.0859	86	70-130	7	35	mg/kg	08.15.19 11:35	
Toluene	<0.000451	0.0990	0.0623	63	0.0683	68	70-130	9	35	mg/kg	08.15.19 11:35	X
Ethylbenzene	<0.00198	0.0990	0.0522	53	0.0551	55	70-130	5	35	mg/kg	08.15.19 11:35	X
m,p-Xylenes	<0.00396	0.198	0.0890	45	0.0886	44	70-130	0	35	mg/kg	08.15.19 11:35	X
o-Xylene	<0.00198	0.0990	0.0495	50	0.0512	51	70-130	3	35	mg/kg	08.15.19 11:35	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		116		70-130	%	08.15.19 11:35
4-Bromofluorobenzene	98		116		70-130	%	08.15.19 11:35

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) www.xenco.com

Work Order No: 633950

Page 1 of 1

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 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU 261 (2RP-3947)	Turn Around	
Project Number:	012518083	Routine ☐	
P.O. Number:		Rush: 24hr	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	2.3/2.1	Temp Blank: Yes ~~No~~	Wet Ice: ~~Yes~~ No
Received Intact:	Yes No	Thermometer ID:	VE
Cooler Custody Seals:	Yes ~~No~~ N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes ~~No~~ N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	8/13/19	0945	1'	1	X	X	X
FS02			0950	1'		X	X	X
SW01			1000	1'		X	X	X

ANALYSIS REQUEST

BTEX 8021B 8/13/19

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			8/13/19 @ 1:55	2	Andres Montoya	8/14/19 09:00
3				4		8/14/19
5				6		647

Revised Date 051418 Rev. 2018.1

Final 1.000

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/14/2019 10:47:00 AM

Work Order #: 633950

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08/14/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/14/2019

Jessica Kramer

Analytical Report 635225

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 261 (2RP-3947)

012918083

11-SEP-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-Tampa: Florida (E87429), North Carolina (483)

11-SEP-19

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

Reference: XENCO Report No(s): **635225**
PLU 261 (2RP-3947)
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) 635225. 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. 635225 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 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	08-26-19 14:00	2 ft	635225-001
FS02A	S	08-26-19 14:05	1 ft	635225-002
FS03	S	08-26-19 14:20	1 - 2 ft	635225-003
FS04	S	08-26-19 14:25	1 ft	635225-004
FS05	S	08-26-19 14:27	1 ft	635225-005
FS06	S	08-26-19 14:30	1 ft	635225-006
SW01A	S	08-26-19 16:00	0 - 2 ft	635225-007
SW02	S	08-26-19 16:05	0 - 1 ft	635225-008
SW03	S	08-26-19 16:10	0 - 1 ft	635225-009
SW04	S	08-26-19 16:15	0 - 2 ft	635225-010
SW05	S	08-26-19 16:20	0 - 2 ft	635225-011
SW06	S	08-26-19 16:25	0 - 2 ft	635225-012

Sample receipt non conformances and comments:

PER CLIENTS EMAIL REQUEST CORRECTED SAMPLE NAMES BELOW. NEW VERSION GENERATED 09/11/19
FS01 --> FS01A
FS02 --> FS02A
SW01 --> SW01A

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099983 Chloride by EPA 300
Lab Sample ID 635229-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 635225-005, -006, -007, -008, -009, -010, -011, -012.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3100232 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 635225

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261 (2RP-3947)

Project Id: 012918083
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Aug-27-19 11:35 am
Report Date: 11-SEP-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	635225-001		635225-002		635225-003		635225-004		635225-005		635225-006	
	Field Id:	FS01A		FS02A		FS03		FS04		FS05		FS06	
	Depth:	2- ft		1- ft		1-2 ft		1- ft		1- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-26-19 14:00		Aug-26-19 14:05		Aug-26-19 14:20		Aug-26-19 14:25		Aug-26-19 14:27		Aug-26-19 14:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00	
	Analyzed:	Aug-29-19 15:30		Aug-29-19 15:51		Aug-29-19 16:11		Aug-29-19 16:31		Aug-29-19 16:51		Aug-29-19 18:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-28-19 15:15		Aug-28-19 15:15		Aug-28-19 15:15		Aug-28-19 15:15		Aug-28-19 15:00		Aug-28-19 15:00	
	Analyzed:	Aug-29-19 15:59		Aug-29-19 16:06		Aug-29-19 16:12		Aug-29-19 16:18		Aug-28-19 16:04		Aug-28-19 15:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		73.3	4.95	148	5.04	122	5.00	723	5.00	795	4.96	44.3	5.00
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00	
	Analyzed:	Aug-29-19 05:05		Aug-29-19 06:04		Aug-29-19 06:23		Aug-29-19 06:43		Aug-29-19 07:03		Aug-29-19 07:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<24.9	24.9	<24.9	24.9	<25.0	25.0	<25.0	25.0	<25.0	25.0	<24.9	24.9
Diesel Range Organics (DRO)		1200	24.9	578	24.9	92.2	25.0	1200	25.0	1510	25.0	943	24.9
Motor Oil Range Hydrocarbons (MRO)		198	24.9	120	24.9	<25.0	25.0	226	25.0	294	25.0	173	24.9
Total TPH		1400	24.9	698	24.9	92.2	25.0	1430	25.0	1800	25.0	1120	24.9
Total GRO-DRO		1200	24.9	578	24.9	92.2	25.0	1200	25.0	1510	25.0	943	24.9

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 635225

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261 (2RP-3947)

Project Id: 012918083
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Aug-27-19 11:35 am
Report Date: 11-SEP-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	635225-007		635225-008		635225-009		635225-010		635225-011		635225-012	
	Field Id:	SW01A		SW02		SW03		SW04		SW05		SW06	
	Depth:	0-2 ft		0-1 ft		0-1 ft		0-2 ft		0-2 ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-26-19 16:00		Aug-26-19 16:05		Aug-26-19 16:10		Aug-26-19 16:15		Aug-26-19 16:20		Aug-26-19 16:25	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00		Aug-28-19 16:00	
	Analyzed:	Aug-29-19 18:29		Aug-29-19 18:50		Aug-29-19 19:10		Aug-29-19 19:30		Aug-29-19 19:50		Aug-29-19 20:10	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00400	0.00400	<0.00402	0.00402	<0.00399	0.00399	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	0.00364	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	0.00364	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	0.00364	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-28-19 15:00		Aug-28-19 15:00		Aug-28-19 15:00		Aug-28-19 15:00		Aug-28-19 15:00		Aug-28-19 15:00	
	Analyzed:	Aug-28-19 16:11		Aug-28-19 16:17		Aug-28-19 16:23		Aug-28-19 16:42		Aug-28-19 16:48		Aug-28-19 16:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		30.4	5.02	254	4.99	154	4.95	534	4.95	235	4.95	88.5	4.95
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00		Aug-28-19 14:00	
	Analyzed:	Aug-29-19 07:42		Aug-29-19 08:02		Aug-29-19 08:28		Aug-29-19 08:47		Aug-29-19 10:45		Aug-29-19 11:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<25.0	25.0	<24.9	24.9	<25.0	25.0	<25.0	25.0	<24.9	24.9	<24.9	24.9
Diesel Range Organics (DRO)		581	25.0	250	24.9	1060	25.0	2720	25.0	595	24.9	384	24.9
Motor Oil Range Hydrocarbons (MRO)		151	25.0	68.1	24.9	276	25.0	377	25.0	237	24.9	117	24.9
Total TPH		732	25.0	318	24.9	1340	25.0	3100	25.0	832	24.9	501	24.9
Total GRO-DRO		581	25.0	250	24.9	1060	25.0	2720	25.0	595	24.9	384	24.9

Jessica Kramer
Project Assistant

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-001	Date Collected:	08.26.19 14.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.15	Basis:	Wet Weight
Seq Number:	3100130			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.3**	4.95	mg/kg	08.29.19 15.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 05.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1200**	24.9	mg/kg	08.29.19 05.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**198**	24.9	mg/kg	08.29.19 05.05		1
Total TPH	PHC635	**1400**	24.9	mg/kg	08.29.19 05.05		1
Total GRO-DRO	PHC628	**1200**	24.9	mg/kg	08.29.19 05.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.29.19 05.05	
o-Terphenyl	84-15-1	108	%	70-135	08.29.19 05.05	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-001	Date Collected:	08.26.19 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 15.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.19 15.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.29.19 15.30	
4-Bromofluorobenzene	460-00-4	129	%	70-130	08.29.19 15.30	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS02A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-002	Date Collected:	08.26.19 14.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.15	Basis:	Wet Weight
Seq Number:	3100130			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**148**	5.04	mg/kg	08.29.19 16.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 06.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**578**	24.9	mg/kg	08.29.19 06.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**120**	24.9	mg/kg	08.29.19 06.04		1
Total TPH	PHC635	**698**	24.9	mg/kg	08.29.19 06.04		1
Total GRO-DRO	PHC628	**578**	24.9	mg/kg	08.29.19 06.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.29.19 06.04	
o-Terphenyl	84-15-1	93	%	70-135	08.29.19 06.04	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS02A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-002	Date Collected:	08.26.19 14.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.19 15.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.19 15.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.19 15.51	
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.29.19 15.51	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-003	Date Collected:	08.26.19 14.20	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.15	Basis:	Wet Weight
Seq Number:	3100130			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	5.00	mg/kg	08.29.19 16.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 06.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**92.2**	25.0	mg/kg	08.29.19 06.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.29.19 06.23	U	1
Total TPH	PHC635	**92.2**	25.0	mg/kg	08.29.19 06.23		1
Total GRO-DRO	PHC628	**92.2**	25.0	mg/kg	08.29.19 06.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.29.19 06.23	
o-Terphenyl	84-15-1	89	%	70-135	08.29.19 06.23	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-003	Date Collected:	08.26.19 14.20	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.29.19 16.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.29.19 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.19 16.11	
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.29.19 16.11	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-004	Date Collected:	08.26.19 14.25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.15	Basis:	Wet Weight
Seq Number:	3100130			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**723**	5.00	mg/kg	08.29.19 16.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 06.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1200**	25.0	mg/kg	08.29.19 06.43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**226**	25.0	mg/kg	08.29.19 06.43		1
Total TPH	PHC635	**1430**	25.0	mg/kg	08.29.19 06.43		1
Total GRO-DRO	PHC628	**1200**	25.0	mg/kg	08.29.19 06.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.29.19 06.43	
o-Terphenyl	84-15-1	105	%	70-135	08.29.19 06.43	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS04**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-004	Date Collected:	08.26.19 14.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 16.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.29.19 16.31	
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.29.19 16.31	

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Sample Id:	**FS05**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-005	Date Collected:	08.26.19 14.27	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**795**	4.96	mg/kg	08.28.19 16.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 07.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1510**	25.0	mg/kg	08.29.19 07.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**294**	25.0	mg/kg	08.29.19 07.03		1
Total TPH	PHC635	**1800**	25.0	mg/kg	08.29.19 07.03		1
Total GRO-DRO	PHC628	**1510**	25.0	mg/kg	08.29.19 07.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.29.19 07.03	
o-Terphenyl	84-15-1	98	%	70-135	08.29.19 07.03	

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Sample Id:	**FS05**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-005	Date Collected:	08.26.19 14.27	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 16.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.19 16.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.29.19 16.51	
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.29.19 16.51	

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PLU 261 (2RP-3947)

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-006	Date Collected:	08.26.19 14.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.3**	5.00	mg/kg	08.28.19 15.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 07.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**943**	24.9	mg/kg	08.29.19 07.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**173**	24.9	mg/kg	08.29.19 07.22		1
Total TPH	PHC635	**1120**	24.9	mg/kg	08.29.19 07.22		1
Total GRO-DRO	PHC628	**943**	24.9	mg/kg	08.29.19 07.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.29.19 07.22	
o-Terphenyl	84-15-1	99	%	70-135	08.29.19 07.22	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-006	Date Collected:	08.26.19 14.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 18.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 18.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.29.19 18.09	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.29.19 18.09	

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Sample Id:	**SW01A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-007	Date Collected:	08.26.19 16.00	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**30.4**	5.02	mg/kg	08.28.19 16.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 07.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**581**	25.0	mg/kg	08.29.19 07.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**151**	25.0	mg/kg	08.29.19 07.42		1
Total TPH	PHC635	**732**	25.0	mg/kg	08.29.19 07.42		1
Total GRO-DRO	PHC628	**581**	25.0	mg/kg	08.29.19 07.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.29.19 07.42	
o-Terphenyl	84-15-1	91	%	70-135	08.29.19 07.42	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW01A**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-007	Date Collected:	08.26.19 16.00	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 18.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 18.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.29.19 18.29	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.29.19 18.29	

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LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-008	Date Collected:	08.26.19 16.05	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**254**	4.99	mg/kg	08.28.19 16.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 08.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	**250**	24.9	mg/kg	08.29.19 08.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**68.1**	24.9	mg/kg	08.29.19 08.02		1
Total TPH	PHC635	**318**	24.9	mg/kg	08.29.19 08.02		1
Total GRO-DRO	PHC628	**250**	24.9	mg/kg	08.29.19 08.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.29.19 08.02	
o-Terphenyl	84-15-1	93	%	70-135	08.29.19 08.02	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-008	Date Collected:	08.26.19 16.05	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 18.50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 18.50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 18.50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 18.50	U	1
o-Xylene	95-47-6	**0.00364**	0.00201	mg/kg	08.29.19 18.50		1
Total Xylenes	1330-20-7	**0.00364**	0.00201	mg/kg	08.29.19 18.50		1
Total BTEX		**0.00364**	0.00201	mg/kg	08.29.19 18.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.29.19 18.50	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.29.19 18.50	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-009	Date Collected:	08.26.19 16.10	Sample Depth:	0 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**154**	4.95	mg/kg	08.28.19 16.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 08.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1060**	25.0	mg/kg	08.29.19 08.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**276**	25.0	mg/kg	08.29.19 08.28		1
Total TPH	PHC635	**1340**	25.0	mg/kg	08.29.19 08.28		1
Total GRO-DRO	PHC628	**1060**	25.0	mg/kg	08.29.19 08.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.29.19 08.28	
o-Terphenyl	84-15-1	108	%	70-135	08.29.19 08.28	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-009	Date Collected:	08.26.19 16.10	Sample Depth:	0 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.29.19 19.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.29.19 19.10	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.29.19 19.10	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-010	Date Collected:	08.26.19 16.15	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**534**	4.95	mg/kg	08.28.19 16.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.29.19 08.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2720**	25.0	mg/kg	08.29.19 08.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**377**	25.0	mg/kg	08.29.19 08.47		1
Total TPH	PHC635	**3100**	25.0	mg/kg	08.29.19 08.47		1
Total GRO-DRO	PHC628	**2720**	25.0	mg/kg	08.29.19 08.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	08.29.19 08.47	
o-Terphenyl	84-15-1	111	%	70-135	08.29.19 08.47	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-010	Date Collected:	08.26.19 16.15	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.29.19 19.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.29.19 19.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	08.29.19 19.30	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.29.19 19.30	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-011	Date Collected:	08.26.19 16.20	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**235**	4.95	mg/kg	08.28.19 16.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 10.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	**595**	24.9	mg/kg	08.29.19 10.45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**237**	24.9	mg/kg	08.29.19 10.45		1
Total TPH	PHC635	**832**	24.9	mg/kg	08.29.19 10.45		1
Total GRO-DRO	PHC628	**595**	24.9	mg/kg	08.29.19 10.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.29.19 10.45	
o-Terphenyl	84-15-1	90	%	70-135	08.29.19 10.45	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-011	Date Collected:	08.26.19 16.20	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.29.19 19.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 19.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	08.29.19 19.50	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.29.19 19.50	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-012	Date Collected:	08.26.19 16.25	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.28.19 15.00	Basis:	Wet Weight
Seq Number:	3099983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**88.5**	4.95	mg/kg	08.28.19 16.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.19 14.00	Basis:	Wet Weight
Seq Number:	3100068			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<24.9	24.9	mg/kg	08.29.19 11.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**384**	24.9	mg/kg	08.29.19 11.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**117**	24.9	mg/kg	08.29.19 11.05		1
Total TPH	PHC635	**501**	24.9	mg/kg	08.29.19 11.05		1
Total GRO-DRO	PHC628	**384**	24.9	mg/kg	08.29.19 11.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.29.19 11.05	
o-Terphenyl	84-15-1	95	%	70-135	08.29.19 11.05	

Certificate of Analytical Results 635225

LT Environmental, Inc., Arvada, CO

PLU 261 (2RP-3947)

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	08.27.19 11.35
Lab Sample Id:	635225-012	Date Collected:	08.26.19 16.25	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.28.19 16.00	Basis:	Wet Weight
Seq Number:	3100232			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.29.19 20.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.29.19 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	08.29.19 20.10	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.29.19 20.10	

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 635225

LT Environmental, Inc.

PLU 261 (2RP-3947)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099983 Matrix: Solid Date Prep: 08.28.19
MB Sample Id: 7685187-1-BLK LCS Sample Id: 7685187-1-BKS LCSD Sample Id: 7685187-1-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	242	97	242	97	90-110	0	20	mg/kg	08.28.19 15:29	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3100130 Matrix: Solid Date Prep: 08.28.19
MB Sample Id: 7685188-1-BLK LCS Sample Id: 7685188-1-BKS LCSD Sample Id: 7685188-1-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	251	100	250	100	90-110	0	20	mg/kg	08.29.19 12:58	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099983 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635225-006 MS Sample Id: 635225-006 S MSD Sample Id: 635225-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.3	250	257	85	258	85	90-110	0	20	mg/kg	08.28.19 15:48	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3099983 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635229-005 MS Sample Id: 635229-005 S MSD Sample Id: 635229-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.1	249	226	85	226	85	90-110	0	20	mg/kg	08.28.19 17:20	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3100130 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635221-001 MS Sample Id: 635221-001 S MSD Sample Id: 635221-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	307	251	557	100	558	100	90-110	0	20	mg/kg	08.29.19 14:59	

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 635225

LT Environmental, Inc.

PLU 261 (2RP-3947)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3100130 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635232-002 MS Sample Id: 635232-002 S MSD Sample Id: 635232-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.9	251	272	100	272	100	90-110	0	20	mg/kg	08.29.19 13:19	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3100068 Matrix: Solid Date Prep: 08.28.19
MB Sample Id: 7685193-1-BLK LCS Sample Id: 7685193-1-BKS LCSD Sample Id: 7685193-1-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	1030	103	988	99	70-135	4	20	mg/kg	08.29.19 04:25	
Diesel Range Organics (DRO)	<25.0	1000	938	94	917	92	70-135	2	20	mg/kg	08.29.19 04:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		119		118		70-135	%	08.29.19 04:25
o-Terphenyl	83		108		101		70-135	%	08.29.19 04:25

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3100068 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635225-001 MS Sample Id: 635225-001 S MSD Sample Id: 635225-001 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	999	972	97	970	97	70-135	0	20	mg/kg	08.29.19 05:24	
Diesel Range Organics (DRO)	1200	999	2000	80	2010	81	70-135	0	20	mg/kg	08.29.19 05:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		113		70-135	%	08.29.19 05:24
o-Terphenyl	116		111		70-135	%	08.29.19 05:24

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

QC Summary 635225

LT Environmental, Inc.

PLU 261 (2RP-3947)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3100232 Matrix: Solid Date Prep: 08.28.19
MB Sample Id: 7685217-1-BLK LCS Sample Id: 7685217-1-BKS LCSD Sample Id: 7685217-1-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	0.0873	87	0.0969	97	70-130	10	35	mg/kg	08.29.19 11:50	
Toluene	<0.000456	0.100	0.0886	89	0.0992	99	70-130	11	35	mg/kg	08.29.19 11:50	
Ethylbenzene	<0.000565	0.100	0.0955	96	0.108	108	70-130	12	35	mg/kg	08.29.19 11:50	
m,p-Xylenes	<0.00101	0.200	0.186	93	0.210	105	70-130	12	35	mg/kg	08.29.19 11:50	
o-Xylene	<0.000344	0.100	0.0962	96	0.109	109	70-130	12	35	mg/kg	08.29.19 11:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		97		101		70-130	%	08.29.19 11:50
4-Bromofluorobenzene	95		109		111		70-130	%	08.29.19 11:50

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3100232 Matrix: Soil Date Prep: 08.28.19
Parent Sample Id: 635221-001 MS Sample Id: 635221-001 S MSD Sample Id: 635221-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0673	67	0.0471	48	70-130	35	35	mg/kg	08.29.19 12:30	X
Toluene	0.00123	0.0998	0.0724	71	0.0514	51	70-130	34	35	mg/kg	08.29.19 12:30	X
Ethylbenzene	0.000656	0.0998	0.0774	77	0.0532	53	70-130	37	35	mg/kg	08.29.19 12:30	XF
m,p-Xylenes	0.00174	0.200	0.151	75	0.102	51	70-130	39	35	mg/kg	08.29.19 12:30	XF
o-Xylene	0.000825	0.0998	0.0804	80	0.0536	53	70-130	40	35	mg/kg	08.29.19 12:30	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		70-130	%	08.29.19 12:30
4-Bromofluorobenzene	118		114		70-130	%	08.29.19 12:30

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: 635225

XENCO LABORATORIES

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

www.xenco.com Page 1 of 2

Project Manager:	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 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:	bbelill@ltenv.com	

Work Order Comments

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

Project Name:	PLU 261 (2RP-3447)	Turn Around	
Project Number:	0129180833	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.3	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	12	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	8/26/19	1400	3'	1	X	X	X
FS02			1405	1'		X	X	X
FS03			1420	1-2'		X	X	X
FS04			1425	1'		X	X	X
FS05			1427	1'		X	X	X
FS06			1430	1'		X	X	X
SW01			1600	0-2'		X	X	X
SW02			1605	0-1'		X	X	X
SW03			1610	0-1'		X	X	X
SW04			1615	0-1'		X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		08/27/19 9:00	2		08/27/2019 11:35
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

1.001

Chain of Custody

Work Order No: 635225

XENCO LABORATORIES

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

www.xenco.com Page 2 of 2

Project Manager:	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 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:	bbelill@ltenv.com	

Work Order Comments

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

Project Name:	PW 261 (2RP-3947)	Turn Around	
Project Number:	01291808 3	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW05	S	8/26/19	1620	0-2'	1	X	X	X
SW06	S	8/26/19	1625	0-2'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

8/26/19

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			08/27/2019 9:00	2		08/27/2019 11:35
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **46974**

Date/Time: 08/27/19 14:16
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.: 776092467348
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
635225-001	S	FS01	08/26/19 14:00	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-001	S	FS01	08/26/19 14:00	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-001	S	FS01	08/26/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-002	S	FS02	08/26/19 14:05	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-002	S	FS02	08/26/19 14:05	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-002	S	FS02	08/26/19 14:05	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-003	S	FS03	08/26/19 14:20	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-003	S	FS03	08/26/19 14:20	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-003	S	FS03	08/26/19 14:20	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-004	S	FS04	08/26/19 14:25	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-004	S	FS04	08/26/19 14:25	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-004	S	FS04	08/26/19 14:25	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-005	S	FS05	08/26/19 14:27	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-005	S	FS05	08/26/19 14:27	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-005	S	FS05	08/26/19 14:27	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-006	S	FS06	08/26/19 14:30	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-006	S	FS06	08/26/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-006	S	FS06	08/26/19 14:30	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-007	S	SW01	08/26/19 16:00	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-007	S	SW01	08/26/19 16:00	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-007	S	SW01	08/26/19 16:00	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-008	S	SW02	08/26/19 16:05	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-008	S	SW02	08/26/19 16:05	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-008	S	SW02	08/26/19 16:05	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-009	S	SW03	08/26/19 16:10	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **46974**

Date/Time: 08/27/19 14:16
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776092467348

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
635225-009	S	SW03	08/26/19 16:10	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-009	S	SW03	08/26/19 16:10	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-010	S	SW04	08/26/19 16:15	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-010	S	SW04	08/26/19 16:15	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-010	S	SW04	08/26/19 16:15	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-011	S	SW05	08/26/19 16:20	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	
635225-011	S	SW05	08/26/19 16:20	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-011	S	SW05	08/26/19 16:20	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-012	S	SW06	08/26/19 16:25	SW8015MOD_NM	TPH by SW8015 Mod	09/03/19	09/09/19	JKR	GRO-DRO PHCC10C28 PI	
635225-012	S	SW06	08/26/19 16:25	E300_CL	Chloride by EPA 300	09/03/19	02/22/20	JKR	CL	
635225-012	S	SW06	08/26/19 16:25	SW8021B	BTEX by EPA 8021B	09/03/19	09/09/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 08/27/2019

Received By: Brianna Teel

Date Received: 08/28/2019 11:29

Cooler Temperature: 2.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 46974

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

Sent By: Elizabeth McClellan **Date Sent:** 08/27/2019 02:16 PM

Received By: Brianna Teel **Date Received:** 08/28/2019 11:29 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 08/28/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/27/2019 11:35:00 AM

Work Order #: 635225

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#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?	**Yes**	
#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: 08/27/2019

Checklist reviewed by: Jessica Kramer Date: 08/28/2019

Analytical Report 637438

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 261

012918083

02-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)

02-OCT-19

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

Reference: XENCO Report No(s): **637438**
PLU 261
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) 637438. 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. 637438 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 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	09-18-19 10:00	2.5 ft	637438-001
FS05A	S	09-18-19 10:15	2 ft	637438-002
SW07	S	09-18-19 11:00	0 - 2 ft	637438-003
SW08	S	09-18-19 11:30	0 - 2 ft	637438-004
FS04A	S	09-18-19 14:30	1 - 2 ft	637438-005

Sample receipt non conformances and comments:

Revision due to re run of samples 001 & 004. New data imported. New Version generated. JK 10/02/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3102203 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3102246 TPH by SW8015 Mod
Surrogate 1-Chlorooctane, Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected;
Samples affected are: 637438-001.

Certificate of Analysis Summary 637438

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261

Project Id: 012918083
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Sep-19-19 10:50 am
Report Date: 02-OCT-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	637438-001		637438-002		637438-003		637438-004		637438-005	
	Field Id:	FS01A		FS05A		SW07		SW08		FS04A	
	Depth:	2.5- ft		2- ft		0-2 ft		0-2 ft		1-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-18-19 10:00		Sep-18-19 10:15		Sep-18-19 11:00		Sep-18-19 11:30		Sep-18-19 14:30	
BTEX by EPA 8021B	***Extracted:***	Sep-20-19 11:30		Sep-20-19 11:30		Sep-20-19 11:30		Sep-20-19 11:30		Sep-20-19 11:30	
SUB: T104704400-19-19	***Analyzed:***	Sep-21-19 11:49		Sep-21-19 12:09		Sep-21-19 12:29		Sep-21-19 12:49		Sep-21-19 13:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402	<0.00397	0.00397
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	Sep-20-19 13:20		Sep-20-19 13:20		Sep-20-19 13:20		Sep-20-19 13:20		Sep-20-19 13:30	
SUB: T104704400-19-19	***Analyzed:***	Sep-20-19 16:09		Sep-20-19 17:16		Sep-20-19 17:24		Sep-20-19 17:31		Sep-20-19 16:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		35.3	5.00	254	4.95	224	5.04	768	5.05	387	5.00
TPH by SW8015 Mod	***Extracted:***	Sep-20-19 13:00		Sep-20-19 13:00		Sep-20-19 13:00		Sep-20-19 13:00		Sep-20-19 13:00	
SUB: T104704400-19-19	***Analyzed:***	Sep-27-19 23:29		Sep-21-19 02:14		Sep-21-19 02:35		Sep-27-19 23:50		Sep-21-19 03:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		227	49.9	65.3	50.0	199	50.0	788	50.0	67.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	106	50.0	<49.9	49.9
Total GRO-DRO		227	49.9	65.3	50.0	199	50.0	788	50.0	67.9	49.9
Total TPH		227	49.9	65.3	50.0	199	50.0	894	50.0	67.9	49.9

Jessica Kramer
Project Assistant

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-001	Date Collected:	09.18.19 10.00	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.3**	5.00	mg/kg	09.20.19 16.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			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	09.27.19 23.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**227**	49.9	mg/kg	09.27.19 23.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.27.19 23.29	U	1
Total GRO-DRO	PHC628	**227**	49.9	mg/kg	09.27.19 23.29		1
Total TPH	PHC635	**227**	49.9	mg/kg	09.27.19 23.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	09.27.19 23.29	
o-Terphenyl	84-15-1	128	%	70-135	09.27.19 23.29	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-001	Date Collected:	09.18.19 10.00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.21.19 11.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.19 11.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.21.19 11.49	
4-Bromofluorobenzene	460-00-4	110	%	70-130	09.21.19 11.49	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS05A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-002	Date Collected:	09.18.19 10.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**254**	4.95	mg/kg	09.20.19 17.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			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	09.21.19 02.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**65.3**	50.0	mg/kg	09.21.19 02.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.21.19 02.14	U	1
Total GRO-DRO	PHC628	**65.3**	50.0	mg/kg	09.21.19 02.14		1
Total TPH	PHC635	**65.3**	50.0	mg/kg	09.21.19 02.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	09.21.19 02.14	
o-Terphenyl	84-15-1	125	%	70-135	09.21.19 02.14	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS05A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-002	Date Collected:	09.18.19 10.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.19 12.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.19 12.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.21.19 12.09	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.19 12.09	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-003	Date Collected:	09.18.19 11.00	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**224**	5.04	mg/kg	09.20.19 17.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			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	09.21.19 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**199**	50.0	mg/kg	09.21.19 02.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	09.21.19 02.35	U	1
Total GRO-DRO	PHC628	**199**	50.0	mg/kg	09.21.19 02.35		1
Total TPH	PHC635	**199**	50.0	mg/kg	09.21.19 02.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	131	%	70-135	09.21.19 02.35	
o-Terphenyl	84-15-1	129	%	70-135	09.21.19 02.35	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-003	Date Collected:	09.18.19 11.00	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.19 12.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.19 12.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.21.19 12.29	
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.21.19 12.29	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-004	Date Collected:	09.18.19 11.30	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.20	Basis:	Wet Weight
Seq Number:	3102109			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**768**	5.05	mg/kg	09.20.19 17.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			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	09.27.19 23.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	**788**	50.0	mg/kg	09.27.19 23.50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**106**	50.0	mg/kg	09.27.19 23.50		1
Total GRO-DRO	PHC628	**788**	50.0	mg/kg	09.27.19 23.50		1
Total TPH	PHC635	**894**	50.0	mg/kg	09.27.19 23.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	09.27.19 23.50	
o-Terphenyl	84-15-1	126	%	70-135	09.27.19 23.50	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-004	Date Collected:	09.18.19 11.30	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.19 12.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.19 12.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.21.19 12.49	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.19 12.49	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS04A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-005	Date Collected:	09.18.19 14.30	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.20.19 13.30	Basis:	Wet Weight
Seq Number:	3102110			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**387**	5.00	mg/kg	09.20.19 16.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.19 13.00	Basis:	Wet Weight
Seq Number:	3102246			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	09.21.19 03.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**67.9**	49.9	mg/kg	09.21.19 03.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.21.19 03.17	U	1
Total GRO-DRO	PHC628	**67.9**	49.9	mg/kg	09.21.19 03.17		1
Total TPH	PHC635	**67.9**	49.9	mg/kg	09.21.19 03.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	09.21.19 03.17	
o-Terphenyl	84-15-1	127	%	70-135	09.21.19 03.17	

Certificate of Analytical Results 637438

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**FS04A**	Matrix:	Soil	Date Received:	09.19.19 10.50
Lab Sample Id:	637438-005	Date Collected:	09.18.19 14.30	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	09.20.19 11.30	Basis:	Wet Weight
Seq Number:	3102203			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.21.19 13.09	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.19 13.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.21.19 13.09	
4-Bromofluorobenzene	460-00-4	102	%	70-130	09.21.19 13.09	

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 637438

LT Environmental, Inc.

PLU 261

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Solid Date Prep: 09.20.19
MB Sample Id: 7686607-1-BLK LCS Sample Id: 7686607-1-BKS LCSD Sample Id: 7686607-1-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	242	97	242	97	90-110	0	20	mg/kg	09.20.19 14:09	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102110 Matrix: Solid Date Prep: 09.20.19
MB Sample Id: 7686622-1-BLK LCS Sample Id: 7686622-1-BKS LCSD Sample Id: 7686622-1-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	259	104	260	104	90-110	0	20	mg/kg	09.20.19 16:44	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637438-001 MS Sample Id: 637438-001 S MSD Sample Id: 637438-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.3	250	275	96	275	96	90-110	0	20	mg/kg	09.20.19 16:16	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102109 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637510-001 MS Sample Id: 637510-001 S MSD Sample Id: 637510-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	192	252	415	88	415	88	90-110	0	20	mg/kg	09.20.19 14:32	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102110 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637438-005 MS Sample Id: 637438-005 S MSD Sample Id: 637438-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	387	250	629	97	616	92	90-110	2	20	mg/kg	09.20.19 17:03	

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 637438

LT Environmental, Inc.

PLU 261

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3102110 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637482-003 MS Sample Id: 637482-003 S MSD Sample Id: 637482-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	95.7	252	353	102	348	100	90-110	1	20	mg/kg	09.20.19 18:34	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3102246 Matrix: Solid Date Prep: 09.20.19
MB Sample Id: 7686628-1-BLK LCS Sample Id: 7686628-1-BKS LCSD Sample Id: 7686628-1-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	1070	107	1060	106	70-135	1	20	mg/kg	09.20.19 19:35	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1050	105	70-135	0	20	mg/kg	09.20.19 19:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		125		131		70-135	%	09.20.19 19:35
o-Terphenyl	120		126		125		70-135	%	09.20.19 19:35

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3102246 Matrix: Soil Date Prep: 09.20.19
Parent Sample Id: 637427-006 MS Sample Id: 637427-006 S MSD Sample Id: 637427-006 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	999	1080	108	1080	108	70-135	0	20	mg/kg	09.20.19 20:38	
Diesel Range Organics (DRO)	89.8	999	1140	105	1130	104	70-135	1	20	mg/kg	09.20.19 20:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		128		70-135	%	09.20.19 20:38
o-Terphenyl	128		126		70-135	%	09.20.19 20:38

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

QC Summary 637438

LT Environmental, Inc.

PLU 261

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

Seq Number: 3102203 Matrix: Solid Date Prep: 09.20.19

MB Sample Id: 7686580-1-BLK LCS Sample Id: 7686580-1-BKS LCSD Sample Id: 7686580-1-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	0.0962	96	0.0917	92	70-130	5	35	mg/kg	09.21.19 04:29	
Toluene	<0.00200	0.100	0.0982	98	0.0938	94	70-130	5	35	mg/kg	09.21.19 04:29	
Ethylbenzene	<0.00200	0.100	0.109	109	0.103	103	70-130	6	35	mg/kg	09.21.19 04:29	
m,p-Xylenes	<0.00400	0.200	0.220	110	0.206	103	70-130	7	35	mg/kg	09.21.19 04:29	
o-Xylene	<0.00200	0.100	0.114	114	0.108	108	70-130	5	35	mg/kg	09.21.19 04:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		95		70-130	%	09.21.19 04:29
4-Bromofluorobenzene	105		120		115		70-130	%	09.21.19 04:29

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

Seq Number: 3102203 Matrix: Soil Date Prep: 09.20.19

Parent Sample Id: 637427-001 MS Sample Id: 637427-001 S MSD Sample Id: 637427-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0806	81	0.0858	86	70-130	6	35	mg/kg	09.21.19 05:10	
Toluene	<0.00200	0.0998	0.0785	79	0.0822	83	70-130	5	35	mg/kg	09.21.19 05:10	
Ethylbenzene	<0.00200	0.0998	0.0808	81	0.0834	84	70-130	3	35	mg/kg	09.21.19 05:10	
m,p-Xylenes	<0.00399	0.200	0.158	79	0.162	81	70-130	3	35	mg/kg	09.21.19 05:10	
o-Xylene	<0.00200	0.0998	0.0796	80	0.0819	82	70-130	3	35	mg/kg	09.21.19 05:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	09.21.19 05:10
4-Bromofluorobenzene	108		110		70-130	%	09.21.19 05:10

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: 637438

www.xenco.com Page 1 of 1

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 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU 261 (2RP-3947)	Turn Around	
Project Number:	01291808 3	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.3	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	5

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01A	S	9/18/19	1000	2.5'	1	X	X	X
FS05A			1015	2'		X	X	X
SW07			1100	0-2'		X	X	X
SW08			1130	0-2'		X	X	X
FS04A			1430	1-2'		X	X	X
				BCB	9/18/19			

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
BCB		9/19/19 10:50	2		
			4		

Inter-Office Shipment

IOS Number **48409**

Date/Time: 09/19/19 14:13
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776288782636

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
637438-001	S	FS01A	09/18/19 10:00	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/02/19	JKR	GRO-DRO PHCC10C28 PI	
637438-001	S	FS01A	09/18/19 10:00	E300_CL	Chloride by EPA 300	09/25/19	03/16/20	JKR	CL	
637438-001	S	FS01A	09/18/19 10:00	SW8021B	BTEX by EPA 8021B	09/25/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ X	
637438-002	S	FS05A	09/18/19 10:15	SW8021B	BTEX by EPA 8021B	09/25/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ X	
637438-002	S	FS05A	09/18/19 10:15	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/02/19	JKR	GRO-DRO PHCC10C28 PI	
637438-002	S	FS05A	09/18/19 10:15	E300_CL	Chloride by EPA 300	09/25/19	03/16/20	JKR	CL	
637438-003	S	SW07	09/18/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/02/19	JKR	GRO-DRO PHCC10C28 PI	
637438-003	S	SW07	09/18/19 11:00	SW8021B	BTEX by EPA 8021B	09/25/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ X	
637438-003	S	SW07	09/18/19 11:00	E300_CL	Chloride by EPA 300	09/25/19	03/16/20	JKR	CL	
637438-004	S	SW08	09/18/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/02/19	JKR	GRO-DRO PHCC10C28 PI	
637438-004	S	SW08	09/18/19 11:30	E300_CL	Chloride by EPA 300	09/25/19	03/16/20	JKR	CL	
637438-004	S	SW08	09/18/19 11:30	SW8021B	BTEX by EPA 8021B	09/25/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ X	
637438-005	S	FS04A	09/18/19 14:30	SW8021B	BTEX by EPA 8021B	09/25/19	10/02/19	JKR	BR4FBZ BZ BZME EBZ X	
637438-005	S	FS04A	09/18/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	09/25/19	10/02/19	JKR	GRO-DRO PHCC10C28 PI	
637438-005	S	FS04A	09/18/19 14:30	E300_CL	Chloride by EPA 300	09/25/19	03/16/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 09/19/2019

Received By: Brianna Teel

Date Received: 09/20/2019 11:34

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 48409

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

Sent By: Elizabeth McClellan **Date Sent:** 09/19/2019 02:13 PM

Received By: Brianna Teel **Date Received:** 09/20/2019 11:34 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: 09/20/2019

Brianna Teel

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/19/2019 10:50:00 AM

Work Order #: 637438

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#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?	**Yes**	
#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: 09/19/2019

Checklist reviewed by: Jessica Kramer Date: 09/20/2019

Analytical Report 642448

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 261

012918083

12-NOV-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 (2019-058), North Carolina (681), Arkansas (19-037-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

12-NOV-19

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

Reference: XENCO Report No(s): **642448**
PLU 261
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) 642448. 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. 642448 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 642448

LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	11-06-19 12:30	1 ft	642448-001
BH01A	S	11-06-19 12:40	2.5 ft	642448-002
BH02	S	11-06-19 12:45	1 ft	642448-003
BH02A	S	11-06-19 12:50	2.5 ft	642448-004
BH03	S	11-06-19 12:55	1 ft	642448-005
BH03A	S	11-06-19 13:00	2.5 ft	642448-006

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3107088 BTEX by EPA 8021B

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

Certificate of Analysis Summary 642448

LT Environmental, Inc., Arvada, CO

Project Name: PLU 261

Project Id: 012918083
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Nov-07-19 08:20 am
Report Date: 12-NOV-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	642448-001		642448-002		642448-003		642448-004		642448-005		642448-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		2.5- ft		1- ft		2.5- ft		1- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-06-19 12:30		Nov-06-19 12:40		Nov-06-19 12:45		Nov-06-19 12:50		Nov-06-19 12:55		Nov-06-19 13:00	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Nov-08-19 15:00		Nov-08-19 15:00		Nov-08-19 15:00		Nov-08-19 15:00		Nov-08-19 15:00		Nov-08-19 15:00	
	Analyzed:	Nov-11-19 23:41		Nov-12-19 00:01		Nov-12-19 00:21		Nov-12-19 00:41		Nov-12-19 01:01		Nov-12-19 01:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00401	0.00401	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Nov-11-19 10:00		Nov-11-19 10:00		Nov-11-19 10:00		Nov-11-19 10:00		Nov-11-19 10:00		Nov-11-19 10:00	
	Analyzed:	Nov-11-19 10:32		Nov-11-19 12:05		Nov-11-19 11:05		Nov-11-19 11:12		Nov-11-19 11:32		Nov-11-19 11:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		110	4.96	121	5.00	<4.97	4.97	<5.01	5.01	9.47	5.04	<4.98	4.98
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Nov-08-19 11:00		Nov-08-19 11:00		Nov-08-19 11:00		Nov-08-19 11:00		Nov-08-19 11:00		Nov-08-19 11:00	
	Analyzed:	Nov-08-19 17:02		Nov-08-19 17:21		Nov-08-19 17:59		Nov-08-19 18:17		Nov-08-19 18:36		Nov-08-19 18:55	
	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	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9

Jessica Kramer
Project Assistant

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-001	Date Collected:	11.06.19 12.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**110**	4.96	mg/kg	11.11.19 10.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 17.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.08.19 17.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.08.19 17.02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.08.19 17.02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.08.19 17.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.08.19 17.02	
o-Terphenyl	84-15-1	89	%	70-135	11.08.19 17.02	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-001	Date Collected:	11.06.19 12.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.11.19 23.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.11.19 23.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.11.19 23.41	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.11.19 23.41	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-002	Date Collected:	11.06.19 12.40	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**121**	5.00	mg/kg	11.11.19 12.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 17.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 17.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 17.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 17.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 17.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.08.19 17.21	
o-Terphenyl	84-15-1	89	%	70-135	11.08.19 17.21	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-002	Date Collected:	11.06.19 12.40	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 00.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.12.19 00.01	
1,4-Difluorobenzene	540-36-3	108	%	70-130	11.12.19 00.01	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH02**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-003	Date Collected:	11.06.19 12.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	11.11.19 11.05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 17.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 17.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 17.59	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 17.59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.08.19 17.59	
o-Terphenyl	84-15-1	90	%	70-135	11.08.19 17.59	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-003	Date Collected:	11.06.19 12.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.19 00.21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 00.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.12.19 00.21	
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.12.19 00.21	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-004	Date Collected:	11.06.19 12.50	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	11.11.19 11.12	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 18.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.08.19 18.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.08.19 18.17	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.08.19 18.17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.08.19 18.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.08.19 18.17	
o-Terphenyl	84-15-1	92	%	70-135	11.08.19 18.17	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-004	Date Collected:	11.06.19 12.50	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.12.19 00.41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.12.19 00.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.12.19 00.41	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.12.19 00.41	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH03**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-005	Date Collected:	11.06.19 12.55	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.47**	5.04	mg/kg	11.11.19 11.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 18.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.08.19 18.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.08.19 18.36	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.08.19 18.36	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.08.19 18.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.08.19 18.36	
o-Terphenyl	84-15-1	93	%	70-135	11.08.19 18.36	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-005	Date Collected:	11.06.19 12.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.19 01.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.12.19 01.01	
1,4-Difluorobenzene	540-36-3	108	%	70-130	11.12.19 01.01	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-006	Date Collected:	11.06.19 13.00	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.11.19 10.00	Basis:	Wet Weight
Seq Number:	3107080			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	11.11.19 11.38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.08.19 11.00	Basis:	Wet Weight
Seq Number:	3106961			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	11.08.19 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.08.19 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.08.19 18.55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.08.19 18.55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.08.19 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.08.19 18.55	
o-Terphenyl	84-15-1	89	%	70-135	11.08.19 18.55	

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LT Environmental, Inc., Arvada, CO

PLU 261

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	11.07.19 08.20
Lab Sample Id:	642448-006	Date Collected:	11.06.19 13.00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.08.19 15.00	Basis:	Wet Weight
Seq Number:	3107088			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.19 01.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 01.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.12.19 01.22	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.12.19 01.22	

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 642448

LT Environmental, Inc.

PLU 261

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3107080 Matrix: Solid Date Prep: 11.11.19
MB Sample Id: 7690014-1-BLK LCS Sample Id: 7690014-1-BKS LCSD Sample Id: 7690014-1-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	261	104	261	104	90-110	0	20	mg/kg	11.11.19 10:18	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3107080 Matrix: Soil Date Prep: 11.11.19
Parent Sample Id: 642448-001 MS Sample Id: 642448-001 S MSD Sample Id: 642448-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	110	248	366	103	365	103	90-110	0	20	mg/kg	11.11.19 10:38	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3107080 Matrix: Soil Date Prep: 11.11.19
Parent Sample Id: 642448-002 MS Sample Id: 642448-002 S MSD Sample Id: 642448-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	121	250	380	104	379	103	90-110	0	20	mg/kg	11.11.19 12:11	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106961 Matrix: Solid Date Prep: 11.08.19
MB Sample Id: 7689935-1-BLK LCS Sample Id: 7689935-1-BKS LCSD Sample Id: 7689935-1-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	970	97	972	97	70-135	0	20	mg/kg	11.08.19 13:15	
Diesel Range Organics (DRO)	<15.0	1000	946	95	945	95	70-135	0	20	mg/kg	11.08.19 13:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		114		116		70-135	%	11.08.19 13:15
o-Terphenyl	90		98		103		70-135	%	11.08.19 13:15

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106961 Matrix: Solid Date Prep: 11.08.19
MB Sample Id: 7689935-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.08.19 12:56	

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

QC Summary 642448

LT Environmental, Inc.

PLU 261

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106961 Matrix: Soil Date Prep: 11.08.19
Parent Sample Id: 642582-001 MS Sample Id: 642582-001 S MSD Sample Id: 642582-001 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	1030	103	1030	103	70-135	0	20	mg/kg	11.08.19 14:11	
Diesel Range Organics (DRO)	103	998	1130	103	1120	102	70-135	1	20	mg/kg	11.08.19 14:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		126		70-135	%	11.08.19 14:11
o-Terphenyl	111		112		70-135	%	11.08.19 14:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3107088 Matrix: Solid Date Prep: 11.07.19
MB Sample Id: 7689855-1-BLK LCS Sample Id: 7689855-1-BKS LCSD Sample Id: 7689855-1-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	0.114	114	0.112	112	70-130	2	35	mg/kg	11.11.19 16:01	
Toluene	<0.00200	0.100	0.104	104	0.102	102	70-130	2	35	mg/kg	11.11.19 16:01	
Ethylbenzene	<0.00200	0.100	0.105	105	0.103	103	70-130	2	35	mg/kg	11.11.19 16:01	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.210	105	70-130	2	35	mg/kg	11.11.19 16:01	
o-Xylene	<0.00200	0.100	0.105	105	0.104	104	70-130	1	35	mg/kg	11.11.19 16:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		114		70-130	%	11.11.19 16:01
4-Bromofluorobenzene	93		97		104		70-130	%	11.11.19 16:01

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3107088 Matrix: Soil Date Prep: 11.07.19
Parent Sample Id: 642228-001 MS Sample Id: 642228-001 S MSD Sample Id: 642228-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.0878	88	70-130	15	35	mg/kg	11.11.19 16:41	
Toluene	<0.00202	0.101	0.0730	72	0.0608	61	70-130	18	35	mg/kg	11.11.19 16:41	X
Ethylbenzene	<0.00202	0.101	0.0627	62	0.0495	50	70-130	24	35	mg/kg	11.11.19 16:41	X
m,p-Xylenes	<0.00403	0.202	0.126	62	0.0999	50	70-130	23	35	mg/kg	11.11.19 16:41	X
o-Xylene	<0.00202	0.101	0.0659	65	0.0547	55	70-130	19	35	mg/kg	11.11.19 16:41	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		115		70-130	%	11.11.19 16:41
4-Bromofluorobenzene	108		108		70-130	%	11.11.19 16:41

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: 642448

www.xenco.com Page 1 of 1

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 Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU 261 (2RP-3547)	Turn Around	
Project Number:	01291808 3	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.5	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:	6	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
BH01	S	11/6/19	12:30	1'	1	X	X	X
BH01A			12:40	2.5'		X	X	X
BH02			12:45	1'		X	X	X
BH02A			12:50	2.5'		X	X	X
BH03			12:55	1'		X	X	X
BH03A	↓	↓	13:00	2.5'	↓	X	X	X

Work Order Notes

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

Sample Comments

Discrete Type

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/7/19 08:20	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Final 1.000

Inter-Office Shipment

IOS Number **51759**

Date/Time: 11/07/19 12:24
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776930439263

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
642448-001	S	BH01	11/06/19 12:30	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-001	S	BH01	11/06/19 12:30	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	
642448-001	S	BH01	11/06/19 12:30	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-002	S	BH01A	11/06/19 12:40	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-002	S	BH01A	11/06/19 12:40	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-002	S	BH01A	11/06/19 12:40	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	
642448-003	S	BH02	11/06/19 12:45	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	
642448-003	S	BH02	11/06/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-003	S	BH02	11/06/19 12:45	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-004	S	BH02A	11/06/19 12:50	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	
642448-004	S	BH02A	11/06/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-004	S	BH02A	11/06/19 12:50	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-005	S	BH03	11/06/19 12:55	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-005	S	BH03	11/06/19 12:55	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-005	S	BH03	11/06/19 12:55	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	
642448-006	S	BH03A	11/06/19 13:00	SW8015MOD_NM	TPH by SW8015 Mod	11/13/19	11/20/19	JKR	GRO-DRO PHCC10C28 PI	
642448-006	S	BH03A	11/06/19 13:00	E300_CL	Chloride by EPA 300	11/13/19	05/04/20	JKR	CL	
642448-006	S	BH03A	11/06/19 13:00	SW8021B	BTEX by EPA 8021B	11/13/19	11/20/19	JKR	BZ BZME EBZ XYLENES	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 11/07/2019

Received By: Brianna Teel

Date Received: 11/08/2019 11:06

Cooler Temperature: 2.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 51759

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

Sent By: Elizabeth McClellan **Date Sent:** 11/07/2019 12:24 PM

Received By: Brianna Teel **Date Received:** 11/08/2019 11:06 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 11/08/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/07/2019 08:20:00 AM

Work Order #: 642448

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.5	
#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: 11/07/2019

Checklist reviewed by: Jessica Kramer Date: 11/08/2019