

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	NRM1935235986
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	XTO Energy	OGRID	5380
Contact Name	Kyle Littrell	Contact Telephone	432-221-7331
Contact email	Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD)	NRM1935235986
Contact mailing address	522 W. Mermod, Carlsbad, NM 88220		

Location of Release Source

Latitude 32.095717 Longitude -103.863959
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	PLU 421 Battery	Site Type	Battery
Date Release Discovered	10/15/2019	API# (if applicable)	30-015-41033 (PLU 421)

Unit Letter	Section	Township	Range	County
P	27	25S	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)		
<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 0.08	Volume Recovered (bbls) 0
<input type="checkbox"/> Produced Water	Volume Released (bbls) 0	Volume Recovered (bbls) 0
Is the concentration of dissolved chloride in the produced water >10,000 mg/l?		<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
<p>Cause of Release: A separator upset sent oil out of the flare stack starting a small fire underneath the flare that burned itself out. Remediation of de minimis staining around the flare was completed by hand digging and disposal at an approved facility.</p>		

Form C-141

State of New Mexico
Oil Conservation Division

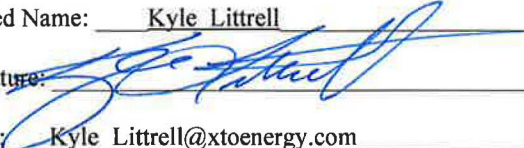
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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of volume that results in a fire or is the result of a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, by Amy Ruth : to Mike Bratcher; Rob Hamlet; Victoria Venegas; 'Griswold, Jim, EMNRD'; and blm_nm_cfo_spill@blm.gov on 10/15/2019 at 9:14 AM by email.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: There were no fluids released to be contained via the use of berms or dikes, absorbent pads, or other containment devices. There were no fluids released to be removed and managed.	
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: <u>Kyle Littrell</u>	Title: <u>SH&E Supervisor</u>
Signature: 	Date: <u>10/28/2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: _____
<u>OCD Only</u> Received by: _____ Date: _____	

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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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

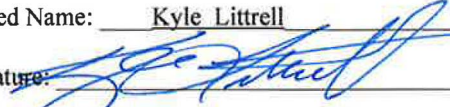
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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.

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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: 05/06/20
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by:  Date: 05/06/2020

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Application ID	

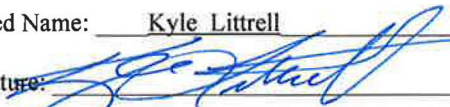
Closure

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: 05/06/20
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: Cristina Eads Date: 05/06/2020

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

Closure Approved by:  Date: 07/07/2020
Printed Name: Cristina Eads Title: Environmental Specialist



LT Environmental, Inc.

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

May 6, 2020

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

**RE: Closure Request
PLU 421 Battery
Incident Number NRM1935235986
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and remediation activities at the Poker Lake Unit 421 Battery (Site) in Unit P, Section 27, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil from a release of crude oil at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM1935235986.

RELEASE BACKGROUND

On October 15, 2019, a separator upset sent soil out of the flare stack, resulting in the release of 0.08 barrels (bbls) of crude oil underneath the flare stack. No fluids were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on October 15, 2019. Subsequently XTO submitted a Form C-141 to NMOCD on October 28, 2019.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-03782 POD 1, located approximately 1.66 miles west of the Site. The groundwater well was most recently measured in January 2015 and had a reported depth to groundwater of 227 feet bgs and a total depth of 805 feet bgs. Within a 1.90-mile radius, there are four wells that indicate that regional depth to groundwater is greater than 160 feet bgs. Located 2.3 miles northeast of



Site, NMOSE well C-03781 has a reported depth to groundwater of 325 feet bgs. South-southwest of Site, three USGS wells; 320405103524001, 320404103523101, and 320355103524001 have reported depth to groundwater ranging between 164 feet to 186 feet bgs. Based on the groundwater data from nearby wells, a regional trend suggests groundwater at the Site is greater than 100 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is an intermittent stream, located approximately 2,218 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On March 31, 2020, LTE personnel visited the Site to evaluate the release extent. LTE personnel collected and field screened two preliminary soil assessment samples at two locations (SS01 and SS02) within the release extent. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) as presented on Figure 2.

The two soil samples were collected at a depth of 0.5 feet below grade surface (bgs). Preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All 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 transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States



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Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

According to laboratory analytical results, TPH-GRO, TPH-DRO, and TPH were reported at concentrations exceeding the Closure Criteria in the preliminary assessment soil samples SS01 and SS02, both located in the western area of the well pad. Based on visible staining in the release area, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted for the release area.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

Delineation was conducted on April 9, 2020, to assist in confirming the presence or absence of impacted soil within the footprint of the release. Two boreholes (BH01 and BH02) were advanced to a depth of two feet bgs in the locations of SS01 and SS02, respectively and two discrete soil samples were collected from each borehole utilizing hand auger equipment. Delineation soil samples were collected at one foot and two 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 each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The locations of delineation boreholes (BH01 through BH02) are presented on Figure 2. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. Laboratory analytical results indicated TPH-GRO, TPH-DRO, and TPH were above Closure Criteria in BH02, collected at 1 foot bgs. Laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in BH01/BH01A and BH02A.

On April 29, 2020, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using track-mounted backhoe and transport vehicle in the above referenced impacted areas near SS01, SS02, and BH02 at 1 foot bgs. The excavations were located on the western area of the well pad. Photographic documentation was conducted during the visit to the Site and is included in Attachment 1.

Following removal of impacted soil, LTE collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of two composite soil samples (FS01 and FS02) were collected from the excavations. The samples were collected at depths of approximately 0.5 feet and 1.5 feet bgs and included representative soil from the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed as described above. The locations of final excavation confirmation samples are presented on Figure 3.



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The excavation extents totaled approximately 190 square feet. A total of approximately 7 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria at the completion of the excavation activities in all composite floor soil samples. In addition, analytical results for 3 soil samples from the two boreholes (BH01A and BH02/BH02A) indicate benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with Closure Criteria. The laboratory analytical results are summarized in Table 1 and the laboratory data reports are provided in Attachment 3.

CONCLUSIONS

Preliminary soil samples SS01 and SS02 and delineation borehole samples BH01/BH01A through BH02/BH02A were collected from within the release extent from depths ranging from 0.5 foot to two feet bgs to assess for the presence or absence of soil impacts as a result of the crude oil release on October 15, 2019. Field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release extent. XTO removed surficial soil in the remaining portion of the release extent stained by the fire.

Laboratory analytical results for the delineation and confirmation soil samples collected from within the final excavation extent indicate benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. As such, XTO respectfully requests NFA for Incident Number NRM1935235986.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Elizabeth A. Naka
Staff Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist



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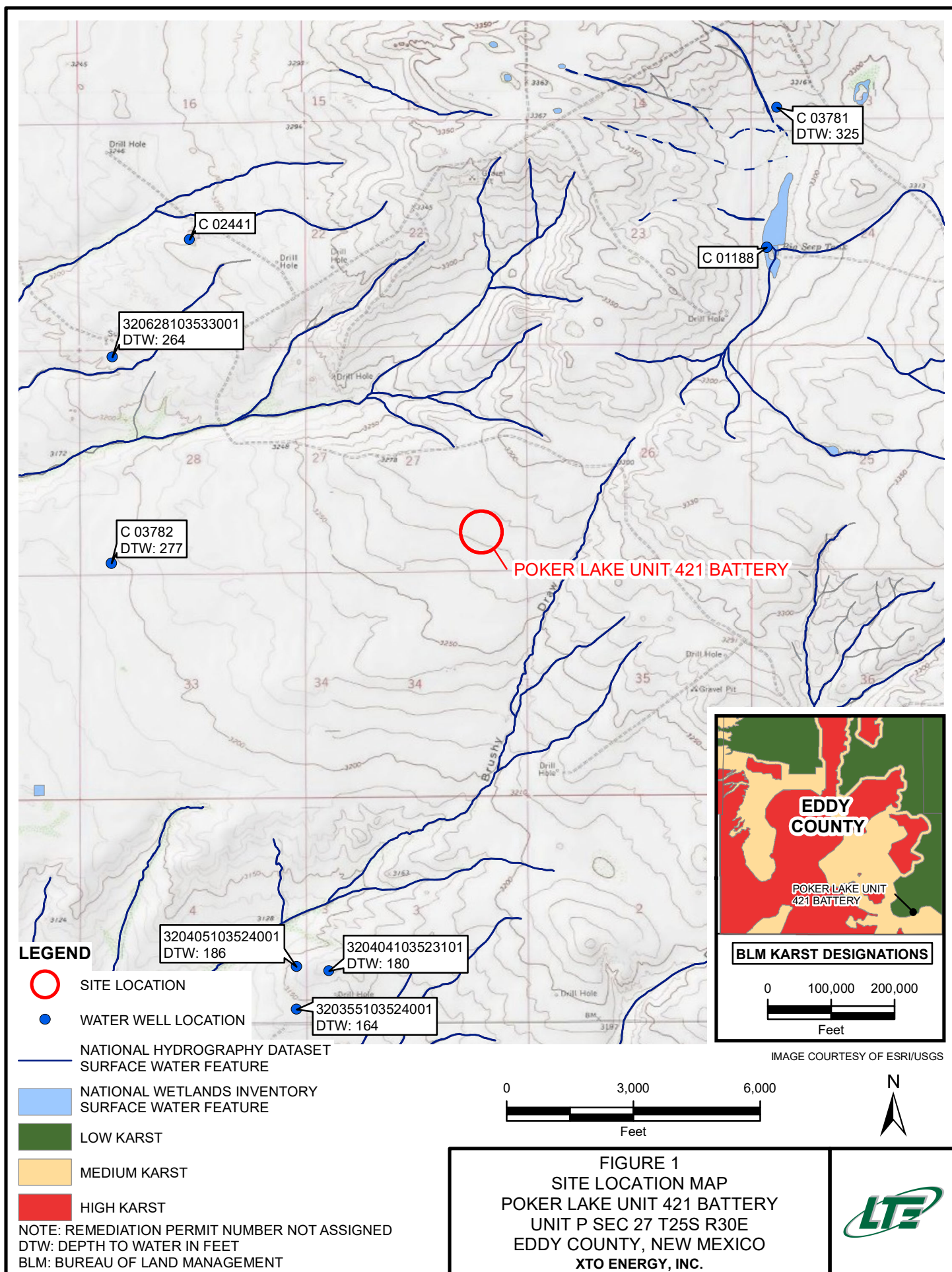
cc: Kyle Littrell, XTO
Jim Amos, United States Bureau of Land Management (BLM)
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Appendices:

Figure 1 Site Location Map
Figure 2 Delineation Soil Sample Locations
Figure 3 Excavation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Photographic Log
Attachment 2 Laboratory Analytical Results
Attachment 3 Lithologic/Soil Sampling Logs

FIGURES





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

SS02@0.5'	BH02@1'	BH02A@2'
03/31/2020	04/09/2020	04/09/2020
B: <0.00200	B: <0.00201	B: <0.00202
BTEX: <0.00200	BTEX: <0.00201	BTEX: <0.00202
GRO+DRO: 4,690	GRO+DRO: 1,570	GRO+DRO: 50.8
TPH: 5,600	TPH: 1,840	TPH: 50.8
Cl: 81.7	Cl: 29.7	Cl: 13.5

SS01@0.5'
 03/31/2020
 B: <0.00199
 BTEX: <0.00199
 GRO+DRO: **3,910**
 TPH: **4,610**
 Cl: <10.0

BH01@1'
 04/09/2020
 B: <0.00200
 BTEX: <0.00200
 GRO+DRO: <49.9
 TPH: <49.9
 Cl: 10.7

BH01A@2'
 04/09/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.0
 TPH: <50.0
 Cl: 18.8

LEGEND

RELEASE LOCATION

SOIL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA

RELEASE 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: INCIDENT NUMBER NRM1935235986

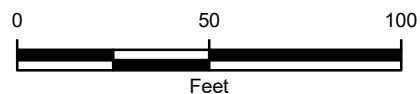


IMAGE COURTESY OF ESRI

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



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

FS02@1.5'
 04/29/2020
 B: <0.00202
 BTEX: <0.00202
 GRO+DRO: <50.2
 TPH: <50.2
 Cl: 10.1

FS01@0.5'
 04/29/2020
 B: <0.00201
 BTEX: <0.00201
 GRO+DRO: 70.5
 TPH: 70.5
 Cl: 10.7

LEGEND



RELEASE LOCATION



FLOOR 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: INCIDENT NUMBER NRM1935235986

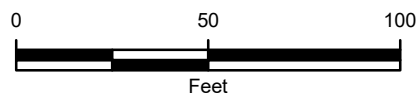


IMAGE COURTESY OF ESRI

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



TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

PLU 421 BATTERY
INCIDENT ID NRM1935235986
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)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SS01	0.5	3/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	3,910	700	3,910	4,610	<10.0
SS02	0.5	3/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	4,690	914	4,690	5,600	81.7
BH01	1	04/09/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	10.7
BH01A	2	04/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	18.8
BH02	1	04/09/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	1,570	265	1,570	1,840	29.7
BH02A	2	04/09/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	50.8	<50.2	50.8	50.8	13.5
FS01	0.5	04/29/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	70.5	<50.0	70.5	70.5	10.7
FS02	1.5	04/29/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	10.1

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

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCDC - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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

Text indicates removal of impacted soil

ATTACHMENT 1: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of flare facing north.




Photograph 2: View of final excavation facing north.




Photograph 3: View of final excavation facing northeast.

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLING LOG



 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation					BH or PH Name: BHO1		Date: 4/9/2020	
					Site Name: PLU421 Battery			
					RP or Incident Number:			
					LTE Job Number: 012920046			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: EM		Method: Hand auger	
Lat/Long:			Field Screening: Chloride, PID		Hole Diameter: 6"		Total Depth: 2'	
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<173	1.3	N	BHO1	1	1	SP	silty SAND, dry, reddish brown, poorly graded, fine to very fine, no stain, no odor.
D	<173	1.8	N	BHO1A	2	2		Total depth: 2 feet bgs

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation					BH or PH Name: BH02		Date: 4/9/2020	
					Site Name: PLU421 Battery			
					RP or Incident Number:			
					LTE Job Number: 012920046			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: EM		Method: Hand auger	
Lat/Long:			Field Screening: Chloride, PID		Hole Diameter: 6"		Total Depth: 2'	
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	silty SAND, dry, reddish brown, poorly graded, fine to very fine, no stain, no odor.
D	<173	12.8	N	BH02	1	1		
D	<173	2.6	N	BH02A	2	2		Total depth: 2 feet bgs

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS





Analytical Report 657499

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 421 Battery

012920046

04.07.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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

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



04.07.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **657499**

PLU 421 Battery

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) 657499. 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. 657499 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,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 657499

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	03.31.2020 12:00	0.5 ft	657499-001
SS02	S	03.31.2020 12:10	0.5 ft	657499-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 421 Battery

Project ID: 012920046
Work Order Number(s): 657499

Report Date: 04.07.2020
Date Received: 04.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121965 BTEX by EPA 8021B

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

Batch: LBA-3121969 BTEX by EPA 8021B

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



Certificate of Analysis Summary 657499

LT Environmental, Inc., Arvada, CO

Project Name: PLU 421 Battery

Project Id: 012920046

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 04.01.2020 09:00

Report Date: 04.07.2020 12:21

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	657499-001	657499-002				
	Field Id:	SS01	SS02				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	03.31.2020 12:00	03.31.2020 12:10				
BTEX by EPA 8021B	Extracted:	04.04.2020 16:52	04.04.2020 17:49				
	Analyzed:	04.05.2020 19:05	04.05.2020 00:39				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	<0.00199 0.00199	<0.00200 0.00200				
	Toluene	<0.00199 0.00199	<0.00200 0.00200				
	Ethylbenzene	<0.00199 0.00199	<0.00200 0.00200				
	m,p-Xylenes	<0.00398 0.00398	<0.00400 0.00400				
	o-Xylene	<0.00199 0.00199	<0.00200 0.00200				
	Total Xylenes	<0.00199 0.00199	<0.00200 0.00200				
	Total BTEX	<0.00199 0.00199	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	04.06.2020 10:36	04.06.2020 10:36				
	Analyzed:	04.06.2020 23:50	04.06.2020 23:56				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	<10.0 10.0	81.7 10.0				
TPH by SW8015 Mod	Extracted:	04.03.2020 18:00	04.03.2020 18:00				
	Analyzed:	04.04.2020 21:46	04.04.2020 21:26				
	Units/RL:	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.2 50.2				
	Diesel Range Organics (DRO)	3910 50.0	4690 50.2				
	Motor Oil Range Hydrocarbons (MRO)	700 50.0	914 50.2				
	Total GRO-DRO	3910 50.0	4690 50.2				
	Total TPH	4610 50.0	5600 50.2				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 657499

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **SS01** Matrix: Soil Date Received: 04.01.2020 09:00
 Lab Sample Id: 657499-001 Date Collected: 03.31.2020 12:00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.06.2020 10:36 Basis: Wet Weight
 Seq Number: 3122154

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.06.2020 23:50	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 18:00 Basis: Wet Weight
 Seq Number: 3121987

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.04.2020 21:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	3910	50.0	mg/kg	04.04.2020 21:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	700	50.0	mg/kg	04.04.2020 21:46		1
Total GRO-DRO	PHC628	3910	50.0	mg/kg	04.04.2020 21:46		1
Total TPH	PHC635	4610	50.0	mg/kg	04.04.2020 21:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.04.2020 21:46	
o-Terphenyl	84-15-1	114	%	70-135	04.04.2020 21:46	



Certificate of Analytical Results 657499

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **SS01**
Lab Sample Id: 657499-001

Matrix: Soil
Date Collected: 03.31.2020 12:00

Date Received: 04.01.2020 09:00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.04.2020 16:52

Basis: Wet Weight

Seq Number: 3121969

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.05.2020 19:05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.05.2020 19:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.05.2020 19:05		
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.05.2020 19:05		



Certificate of Analytical Results 657499

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **SS02** Matrix: Soil Date Received: 04.01.2020 09:00
 Lab Sample Id: 657499-002 Date Collected: 03.31.2020 12:10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.06.2020 10:36 Basis: Wet Weight
 Seq Number: 3122154

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.7	10.0	mg/kg	04.06.2020 23:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.03.2020 18:00 Basis: Wet Weight
 Seq Number: 3121987

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.04.2020 21:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	4690	50.2	mg/kg	04.04.2020 21:26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	914	50.2	mg/kg	04.04.2020 21:26		1
Total GRO-DRO	PHC628	4690	50.2	mg/kg	04.04.2020 21:26		1
Total TPH	PHC635	5600	50.2	mg/kg	04.04.2020 21:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	04.04.2020 21:26	
o-Terphenyl	84-15-1	117	%	70-135	04.04.2020 21:26	



Certificate of Analytical Results 657499

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **SS02**
Lab Sample Id: 657499-002

Matrix: Soil
Date Collected: 03.31.2020 12:10

Date Received: 04.01.2020 09:00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.04.2020 17:49

Basis: Wet Weight

Seq Number: 3121965

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.05.2020 00:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.05.2020 00:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.05.2020 00:39	
4-Bromofluorobenzene	460-00-4	85	%	70-130	04.05.2020 00:39	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

PLU 421 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3122154

MB Sample Id: 7700620-1-BLK

Matrix: Solid

LCS Sample Id: 7700620-1-BKS

Prep Method: E300P

Date Prep: 04.06.2020

LCSD Sample Id: 7700620-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	261	104	90-110	0	20	mg/kg	04.07.2020 07:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3122154

Parent Sample Id: 657565-001

Matrix: Soil

MS Sample Id: 657565-001 S

Prep Method: E300P

Date Prep: 04.06.2020

MSD Sample Id: 657565-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	122	199	337	108	338	109	90-110	0	20	mg/kg	04.07.2020 07:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3122154

Parent Sample Id: 657719-001

Matrix: Soil

MS Sample Id: 657719-001 S

Prep Method: E300P

Date Prep: 04.06.2020

MSD Sample Id: 657719-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	102	200	320	109	320	109	90-110	0	20	mg/kg	04.06.2020 23:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121987

MB Sample Id: 7700520-1-BLK

Matrix: Solid

LCS Sample Id: 7700520-1-BKS

Prep Method: SW8015P

Date Prep: 04.03.2020

LCSD Sample Id: 7700520-1-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)	<50.0	1000	878	88	940	94	70-135	7	35	mg/kg	04.04.2020 13:20	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1120	112	70-135	7	35	mg/kg	04.04.2020 13:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		109		116		70-135	%	04.04.2020 13:20
o-Terphenyl	97		110		116		70-135	%	04.04.2020 13:20

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121987

Matrix: Solid

MB Sample Id: 7700520-1-BLK

Prep Method: SW8015P

Date Prep: 04.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.04.2020 14:00	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.

PLU 421 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3121987

Parent Sample Id: 657796-004

Matrix: Soil

MS Sample Id: 657796-004 S

Prep Method: SW8015P

Date Prep: 04.03.2020

MSD Sample Id: 657796-004 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)	<50.1	1000	981	98	991	99	70-135	1	35	mg/kg	04.04.2020 14:41	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1140	114	70-135	1	35	mg/kg	04.04.2020 14:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		124		70-135	%	04.04.2020 14:41
o-Terphenyl	123		123		70-135	%	04.04.2020 14:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121969

MB Sample Id: 7700541-1-BLK

Matrix: Solid

LCS Sample Id: 7700541-1-BKS

Prep Method: SW5030B

Date Prep: 04.04.2020

LCSD Sample Id: 7700541-1-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	0.106	106	0.0955	96	70-130	10	35	mg/kg	04.05.2020 09:29	
Toluene	<0.00200	0.100	0.0953	95	0.0860	86	70-130	10	35	mg/kg	04.05.2020 09:29	
Ethylbenzene	<0.00200	0.100	0.0871	87	0.0785	79	71-129	10	35	mg/kg	04.05.2020 09:29	
m,p-Xylenes	<0.00400	0.200	0.169	85	0.152	76	70-135	11	35	mg/kg	04.05.2020 09:29	
o-Xylene	<0.00200	0.100	0.0874	87	0.0791	79	71-133	10	35	mg/kg	04.05.2020 09:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		109		108		70-130	%	04.05.2020 09:29
4-Bromofluorobenzene	91		84		87		70-130	%	04.05.2020 09:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121965

MB Sample Id: 7700540-1-BLK

Matrix: Solid

LCS Sample Id: 7700540-1-BKS

Prep Method: SW5030B

Date Prep: 04.04.2020

LCSD Sample Id: 7700540-1-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	0.117	117	0.116	116	70-130	1	35	mg/kg	04.04.2020 22:36	
Toluene	<0.00200	0.100	0.106	106	0.106	106	70-130	0	35	mg/kg	04.04.2020 22:36	
Ethylbenzene	<0.00200	0.100	0.0986	99	0.0978	98	71-129	1	35	mg/kg	04.04.2020 22:36	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.190	95	70-135	1	35	mg/kg	04.04.2020 22:36	
o-Xylene	<0.00200	0.100	0.0987	99	0.0975	98	71-133	1	35	mg/kg	04.04.2020 22:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		109		109		70-130	%	04.04.2020 22:36
4-Bromofluorobenzene	91		84		84		70-130	%	04.04.2020 22:36

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.

PLU 421 Battery

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121969

Parent Sample Id: 657796-004

Matrix: Soil

MS Sample Id: 657796-004 S

Prep Method: SW5030B

Date Prep: 04.04.2020

MSD Sample Id: 657796-004 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	0.109	109	0.113	114	70-130	4	35	mg/kg	04.05.2020 10:10	
Toluene	<0.00200	0.0998	0.0920	92	0.0954	96	70-130	4	35	mg/kg	04.05.2020 10:10	
Ethylbenzene	<0.00200	0.0998	0.0807	81	0.0828	83	71-129	3	35	mg/kg	04.05.2020 10:10	
m,p-Xylenes	<0.00399	0.200	0.160	80	0.166	83	70-135	4	35	mg/kg	04.05.2020 10:10	
o-Xylene	<0.00200	0.0998	0.0817	82	0.0862	87	71-133	5	35	mg/kg	04.05.2020 10:10	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	04.05.2020 10:10
4-Bromofluorobenzene	88		88		70-130	%	04.05.2020 10:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3121965

Parent Sample Id: 657499-002

Matrix: Soil

MS Sample Id: 657499-002 S

Prep Method: SW5030B

Date Prep: 04.04.2020

MSD Sample Id: 657499-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.118	118	0.113	114	70-130	4	35	mg/kg	04.04.2020 23:17	
Toluene	<0.00199	0.0996	0.104	104	0.100	101	70-130	4	35	mg/kg	04.04.2020 23:17	
Ethylbenzene	<0.00199	0.0996	0.0944	95	0.0917	92	71-129	3	35	mg/kg	04.04.2020 23:17	
m,p-Xylenes	<0.00398	0.199	0.181	91	0.176	89	70-135	3	35	mg/kg	04.04.2020 23:17	
o-Xylene	<0.00199	0.0996	0.0952	96	0.0917	92	71-133	4	35	mg/kg	04.04.2020 23:17	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	04.04.2020 23:17
4-Bromofluorobenzene	86		85		70-130	%	04.04.2020 23:17

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

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, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

657499

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, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Program: UST/PST <input type="checkbox"/> PRF <input type="checkbox"/> Brownfield <input type="checkbox"/> RR <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project:	
Reporting Level: <input type="checkbox"/> Level <input type="checkbox"/> PST/US <input type="checkbox"/> TRF <input type="checkbox"/> Level <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	PLU 421 Battery	Turn Around	ANALYSIS REQUEST																Work Order Notes				
Project Number:	012920046	Routine:	<input checked="" type="checkbox"/>																	TAT starts the day received by the lab, if received by 4:30pm			
PO #:	10/15/19 spill date	Rush:																					
Sampler's Name:	Fatima Smith	Due Date:																					
SAMPLE RECEIPT			Temp Blank:	Yes	No	Wet Ice:	Yes	No															
Temperature (°C):	1.0	Thermometer ID	7110007																				
Received Intact:	Yes	No	Correction Factor:	-0.2																			
Cooler Custody Seals:	Yes	No	Total Containers:	2																			
Sample Custody Seals:	Yes	No																					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers																Sample Comments		
SS01	S	3/31/20	1200	0.5	1	TPH (EPA 8015)	X	X	X	X													
SS02	S	3/31/20	1210	0.5	1	BTEX (EPA 0=8021)	X	X	X	X													
					Chloride (EPA 300.0)	X	X	X	X														
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																							
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 Ti 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 Ti U 1631 / 245.1 / 7470 / 7471 : Hg																							
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time																		
1 fat	4/1/20/8:00am	2	4/1/20/8:00am	4	4/1/20/8:00am																		
3		4		6																			
5		6																					

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** LT Environmental, Inc.**Date/ Time Received:** 04.01.2020 09.00.00 AM**Work Order #:** 657499**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
#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)?	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:

Elizabeth McClellan

Date: 04.01.2020

Checklist reviewed by:

Jessica Kramer

Date: 04.01.2020



Analytical Report 658452

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 421 Battery

012920046

04.10.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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

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



04.10.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **658452**

PLU 421 Battery

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658452. 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. 658452 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,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 658452****LT Environmental, Inc., Arvada, CO**

PLU 421 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	04.09.2020 09:33	1 ft	658452-001
BH01A	S	04.09.2020 09:35	2 ft	658452-002
BH02	S	04.09.2020 10:02	1 ft	658452-003
BH02A	S	04.09.2020 10:04	2 ft	658452-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 421 Battery

Project ID: 012920046
Work Order Number(s): 658452

Report Date: 04.10.2020
Date Received: 04.09.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122575 BTEX by EPA 8021B

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



Certificate of Analysis Summary 658452

LT Environmental, Inc., Arvada, CO

Project Name: PLU 421 Battery

Project Id: 012920046

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu 04.09.2020 12:31

Report Date: 04.10.2020 14:12

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658452-001	658452-002	658452-003	658452-004		
	<i>Field Id:</i>	BH01	BH01A	BH02	BH02A		
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	04.09.2020 09:33	04.09.2020 09:35	04.09.2020 10:02	04.09.2020 10:04		
BTEX by EPA 8021B	<i>Extracted:</i>	04.09.2020 16:42	04.09.2020 16:42	04.09.2020 16:42	04.09.2020 16:42		
	<i>Analyzed:</i>	04.10.2020 05:05	04.10.2020 05:25	04.10.2020 05:45	04.10.2020 06:06		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00402 0.00402	<0.00403 0.00403		
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	04.09.2020 14:46	04.09.2020 14:46	04.09.2020 14:46	04.09.2020 14:46		
	<i>Analyzed:</i>	04.09.2020 17:21	04.09.2020 17:27	04.09.2020 17:32	04.09.2020 17:38		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		10.7 9.94	18.8 10.1	29.7 10.0	13.5 9.98		
TPH by SW8015 Mod	<i>Extracted:</i>	04.09.2020 14:00	04.09.2020 14:00	04.09.2020 14:00	04.09.2020 14:00		
	<i>Analyzed:</i>	04.09.2020 16:50	04.09.2020 17:10	04.09.2020 17:51	04.09.2020 17:31		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.2 50.2		
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	1570 49.8	50.8 50.2		
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	265 49.8	<50.2 50.2		
Total GRO-DRO		<49.9 49.9	<50.0 50.0	1570 49.8	50.8 50.2		
Total TPH		<49.9 49.9	<50.0 50.0	1840 49.8	50.8 50.2		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH01** Matrix: Soil Date Received: 04.09.2020 12:31
 Lab Sample Id: 658452-001 Date Collected: 04.09.2020 09:33 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.09.2020 14:46 Basis: Wet Weight
 Seq Number: 3122582

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.7	9.94	mg/kg	04.09.2020 17:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.09.2020 14:00 Basis: Wet Weight
 Seq Number: 3122635

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.09.2020 16:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.09.2020 16:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.09.2020 16:50	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.09.2020 16:50	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.09.2020 16:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	04.09.2020 16:50	
o-Terphenyl	84-15-1	89	%	70-135	04.09.2020 16:50	



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH01**
Lab Sample Id: 658452-001

Matrix: Soil
Date Collected: 04.09.2020 09:33

Date Received: 04.09.2020 12:31
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.09.2020 16:42

Basis: Wet Weight

Seq Number: 3122575

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.2020 05:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.2020 05:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.10.2020 05:05		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.10.2020 05:05		



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH01A** Matrix: Soil Date Received: 04.09.2020 12:31
 Lab Sample Id: 658452-002 Date Collected: 04.09.2020 09:35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.09.2020 14:46 Basis: Wet Weight
 Seq Number: 3122582

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.8	10.1	mg/kg	04.09.2020 17:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.09.2020 14:00 Basis: Wet Weight
 Seq Number: 3122635

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.09.2020 17:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.09.2020 17:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.09.2020 17:10	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.09.2020 17:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.09.2020 17:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.09.2020 17:10	
o-Terphenyl	84-15-1	104	%	70-135	04.09.2020 17:10	



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH01A**
Lab Sample Id: 658452-002

Matrix: Soil
Date Collected: 04.09.2020 09:35

Date Received: 04.09.2020 12:31
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3122575

Prep Method: SW5030B

% Moisture:

Date Prep: 04.09.2020 16:42

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.2020 05:25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.2020 05:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.10.2020 05:25		
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.10.2020 05:25		



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH02** Matrix: Soil Date Received: 04.09.2020 12:31
 Lab Sample Id: 658452-003 Date Collected: 04.09.2020 10:02 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.09.2020 14:46 Basis: Wet Weight
 Seq Number: 3122582

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.7	10.0	mg/kg	04.09.2020 17:32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.09.2020 14:00 Basis: Wet Weight
 Seq Number: 3122635

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.09.2020 17:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	1570	49.8	mg/kg	04.09.2020 17:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	265	49.8	mg/kg	04.09.2020 17:51		1
Total GRO-DRO	PHC628	1570	49.8	mg/kg	04.09.2020 17:51		1
Total TPH	PHC635	1840	49.8	mg/kg	04.09.2020 17:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	04.09.2020 17:51	
o-Terphenyl	84-15-1	126	%	70-135	04.09.2020 17:51	



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH02**
Lab Sample Id: 658452-003

Matrix: Soil
Date Collected: 04.09.2020 10:02

Date Received: 04.09.2020 12:31
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.09.2020 16:42

Basis: Wet Weight

Seq Number: 3122575

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.10.2020 05:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.10.2020 05:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.10.2020 05:45		
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.10.2020 05:45		



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH02A** Matrix: Soil Date Received: 04.09.2020 12:31
 Lab Sample Id: 658452-004 Date Collected: 04.09.2020 10:04 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 04.09.2020 14:46 Basis: Wet Weight
 Seq Number: 3122582

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.5	9.98	mg/kg	04.09.2020 17:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.09.2020 14:00 Basis: Wet Weight
 Seq Number: 3122635

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.09.2020 17:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	50.8	50.2	mg/kg	04.09.2020 17:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.09.2020 17:31	U	1
Total GRO-DRO	PHC628	50.8	50.2	mg/kg	04.09.2020 17:31		1
Total TPH	PHC635	50.8	50.2	mg/kg	04.09.2020 17:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	04.09.2020 17:31	
o-Terphenyl	84-15-1	128	%	70-135	04.09.2020 17:31	



Certificate of Analytical Results 658452

LT Environmental, Inc., Arvada, CO

PLU 421 Battery

Sample Id: **BH02A**
Lab Sample Id: 658452-004

Matrix: Soil
Date Collected: 04.09.2020 10:04

Date Received: 04.09.2020 12:31
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 04.09.2020 16:42

Basis: Wet Weight

Seq Number: 3122575

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.2020 06:06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.2020 06:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.10.2020 06:06		
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.10.2020 06:06		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

PLU 421 Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3122582

MB Sample Id: 7700932-1-BLK

Matrix: Solid

LCS Sample Id: 7700932-1-BKS

Prep Method: E300P

Date Prep: 04.09.2020

LCSD Sample Id: 7700932-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	258	103	90-110	1	20	mg/kg	04.09.2020 15:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3122582

Parent Sample Id: 658381-001

Matrix: Soil

MS Sample Id: 658381-001 S

Prep Method: E300P

Date Prep: 04.09.2020

MSD Sample Id: 658381-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	118	199	328	106	326	104	90-110	1	20	mg/kg	04.09.2020 15:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3122582

Parent Sample Id: 658383-004

Matrix: Soil

MS Sample Id: 658383-004 S

Prep Method: E300P

Date Prep: 04.09.2020

MSD Sample Id: 658383-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	249	247	99	250	100	90-110	1	20	mg/kg	04.09.2020 16:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122635

MB Sample Id: 7700958-1-BLK

Matrix: Solid

LCS Sample Id: 7700958-1-BKS

Prep Method: SW8015P

Date Prep: 04.09.2020

LCSD Sample Id: 7700958-1-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)	<50.0	1000	877	88	971	97	70-135	10	35	mg/kg	04.09.2020 13:25	
Diesel Range Organics (DRO)	<50.0	1000	952	95	1070	107	70-135	12	35	mg/kg	04.09.2020 13:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		126		119		70-135	%	04.09.2020 13:25
o-Terphenyl	113		112		122		70-135	%	04.09.2020 13:25

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122635

Matrix: Solid

MB Sample Id: 7700958-1-BLK

Prep Method: SW8015P

Date Prep: 04.09.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.09.2020 13:04	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * | (C - E) / (C + E) |$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.

PLU 421 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3122635

Parent Sample Id: 658383-006

Matrix: Soil

MS Sample Id: 658383-006 S

Prep Method: SW8015P

Date Prep: 04.09.2020

MSD Sample Id: 658383-006 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)	<50.0	999	1010	101	1020	102	70-135	1	35	mg/kg	04.09.2020 14:26	
Diesel Range Organics (DRO)	<50.0	999	1100	110	1130	113	70-135	3	35	mg/kg	04.09.2020 14:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		126		70-135	%	04.09.2020 14:26
o-Terphenyl	128		129		70-135	%	04.09.2020 14:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3122575

MB Sample Id: 7700965-1-BLK

Matrix: Solid

LCS Sample Id: 7700965-1-BKS

Prep Method: SW5030B

Date Prep: 04.09.2020

LCSD Sample Id: 7700965-1-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	0.107	107	0.110	110	70-130	3	35	mg/kg	04.09.2020 22:37	
Toluene	<0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	04.09.2020 22:37	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0989	99	71-129	3	35	mg/kg	04.09.2020 22:37	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.204	102	70-135	2	35	mg/kg	04.09.2020 22:37	
o-Xylene	<0.00200	0.100	0.0999	100	0.104	104	71-133	4	35	mg/kg	04.09.2020 22:37	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		105		70-130	%	04.09.2020 22:37
4-Bromofluorobenzene	95		90		94		70-130	%	04.09.2020 22:37

Analytical Method: BTEX by EPA 8021B

Seq Number: 3122575

Parent Sample Id: 658342-041

Matrix: Soil

MS Sample Id: 658342-041 S

Prep Method: SW5030B

Date Prep: 04.09.2020

MSD Sample Id: 658342-041 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	0.115	115	0.119	119	70-130	3	35	mg/kg	04.09.2020 23:18	
Toluene	<0.00200	0.100	0.108	108	0.112	112	70-130	4	35	mg/kg	04.09.2020 23:18	
Ethylbenzene	<0.00200	0.100	0.0996	100	0.103	103	71-129	3	35	mg/kg	04.09.2020 23:18	
m,p-Xylenes	<0.00401	0.200	0.204	102	0.211	106	70-135	3	35	mg/kg	04.09.2020 23:18	
o-Xylene	<0.00200	0.100	0.103	103	0.107	107	71-133	4	35	mg/kg	04.09.2020 23:18	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		106		70-130	%	04.09.2020 23:18
4-Bromofluorobenzene	91		92		70-130	%	04.09.2020 23:18

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

Work Order No:

1658452

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 Corsado, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc	Company Name:	XTO Energy, Inc
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Corsado, NM 88220
Phone:	(432) 236-3849	Email:	emorend@xenco.com, dmoir@ltenv.com

Program: <input type="checkbox"/> UST/ST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project: <input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Reporting Level: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	PLU 421 Battery	Turn Around	<input checked="" type="checkbox"/>
Project Number:	012920046	Routine	<input checked="" type="checkbox"/>
Project Location:	Eddy County	Rush:	
Sampler's Name:	Ezequiel Moreno	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Temp Blank:	Temp Blank:
Temperature (°C):	14	Wet Ice:	(Yes) No
Received Intact:	Yes No	Thermometer ID	T-JH-007
Cooler Custody Seals:	Yes No	Correction Factor:	-0.2
Sample Custody Seals:	Yes No	Total Containers:	4

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Preservative Codes
BH01	5	4/19/20	0933	1	1	X	TPH (EPA 8015)		MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn
BH01A	↓	0935	2	1	1	X	BTEX (EPA 0-8021)		TAT starts the day received by the lab, if received by 4:00pm
BH02	↓	1002	1	1	1	X	Chloride (EPA 300.0)		Sample Comments
BH02A	↓	1004	2	1	1	X			

Total 200.7 / 6010 200.8 / 6020:

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

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Ezequiel Moreno</i>	<i>[Signature]</i>	4/19/20 1231			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.09.2020 12.31.00 PM

Work Order #: 658452

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)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	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:


Elizabeth McClellan

Date: 04.09.2020

Checklist reviewed by:


Jessica Kramer

Date: 04.09.2020