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	NAB1912753854
District RP	2RP-5397
Facility ID	
Application ID	pAB1912753552

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)* NAB1912753854
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.129519° Longitude -103.928497°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Muy Wayno 18 Federal 121H	Site Type Production Well Facility
Date Release Discovered 4/11/2019	API# *(if applicable)* 30-015-44840

Unit Letter	Section	Township	Range	County
L	18	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 35	Volume Recovered (bbls) 33
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

During frac operations, contractor reported an overflow from a frac tank due to incorrectly adjusted valves. Produced water was released to containment and escaped damaged liner onto the well pad. Free fluids were recovered from the containment and returned to tanks. Additional third party resources have been retained to assist with remediation. Remediation will begin when completions activities on the well pad have ceased.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1912753854
District RP	2RP-5397
Facility ID	
Application ID	pAB1912753552

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), Crystal Weaver and Deborah McKinney (BLM), on 4/12/2019 by email

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
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: 4/23/2019
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by:
Date: 5/7/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5397
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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5397
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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: 01/07/2020

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-5397
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: 01/07/2020

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: Date:

Printed Name: Title:

LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

January 7, 2020

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

RE: Closure Request
Muy Wayno 18 Federal 121H
Remediation Permit Number 2RP-5397
Incident Number NAB1912753854
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 and soil sampling activities at the Muy Wayno 18 Federal 121H (Site) in Unit L, Section 18, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil following the release of produced water 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 Remediation Permit (RP) Number 2RP-5397.

RELEASE BACKGROUND

On April 11, 2019, a contractor reported an overflow from a frac tank due to incorrectly adjusted valves during frac operations, resulting in a release of approximately 35 barrels (bbls) of produced water. The produced water released to the lined containment and onto the well pad through a damaged portion of the liner. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 33 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on April 23, 2019, and was subsequently issued RP Number 2RP-5397.

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 United States Geological Survey (USGS) well 320857103553301, located approximately 1.38 miles from the Site. The groundwater well has a

depth to groundwater of approximately 264 feet bgs and a total depth of 385 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash, located approximately 4,425 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. The 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 AND SOIL SAMPLING ACTIVITIES

On May 6, 2019, LTE personnel evaluated the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary soil samples (SS01 through SS04) within close proximity to and surrounding the point of release at a depth of approximately 0.5 feet bgs to assess the presence or absence of soil impacts at the ground surface. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Based on laboratory analytical results for preliminary soil samples SS01 through SS04, excavation activities did not appear warranted; however, additional assessment activities were scheduled to further confirm the absence of impacted soil exceeding the Closure Criteria.

Further delineation and remediation efforts were postponed due to ongoing frac operations near the release which resulted in site activity restrictions due to safety concerns. Per 19.15.29.12.B.(1) New Mexico Administrative Code (NMAC), an extension for submission of a remediation plan or closure report was requested and approved on October 8, 2019, by the New Mexico Oil Conservation District (OCD) District II office.

On December 30, 2019, LTE personnel was able to return to the Site after frac operations were completed to oversee additional soil assessment activities. Four boreholes (BH01 through BH04) were advanced via hand-auger, to a depth of approximately 2 feet bgs, within close proximity to and surrounding the point of release. Boreholes BH01 through BH04 were advanced in the immediate vicinity of preliminary soil sample locations SS01 through SS04, respectively.

Soil from the boreholes were field screened for volatile aromatic hydrocarbons and chloride. Field screening results and observations for each borehole were documented on a lithologic/soil sampling log and are included as Attachment 1. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. All boreholes were backfilled with the same soil removed. The borehole locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples SS01 through SS04 collected at approximately 0.5 feet bgs and in delineation borehole samples BH01 through BH04 collected at approximately 2 feet bgs. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

Initial and follow-up response efforts as a result of the produced water release included removal of free-standing fluid via a hydrovac truck and collection of soil samples. Preliminary soil samples SS01 through SS04 and delineation borehole samples BH01 through BH04 were collected within close proximity to and surrounding the point of release at depths ranging from approximately 0.5 feet to 2 feet bgs to assess for the presence or absence of soil impacts as a result of the April 11, 2019, produced water release. Laboratory analytical results for all soil samples indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Based on surficial and subsurface soil analytical results (SS01 through SS04 and BH01 through BH04, respectively), soil within the release extent did not appear to be impacted above Closure Criteria concentrations. As a result, soil excavation did not appear warranted and soil assessment activities are complete. XTO requests NFA for RP Number 2RP-5397.

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

Sincerely,
LT ENVIRONMENTAL, INC.

Kalei Jennings
Project Environmental Scientist

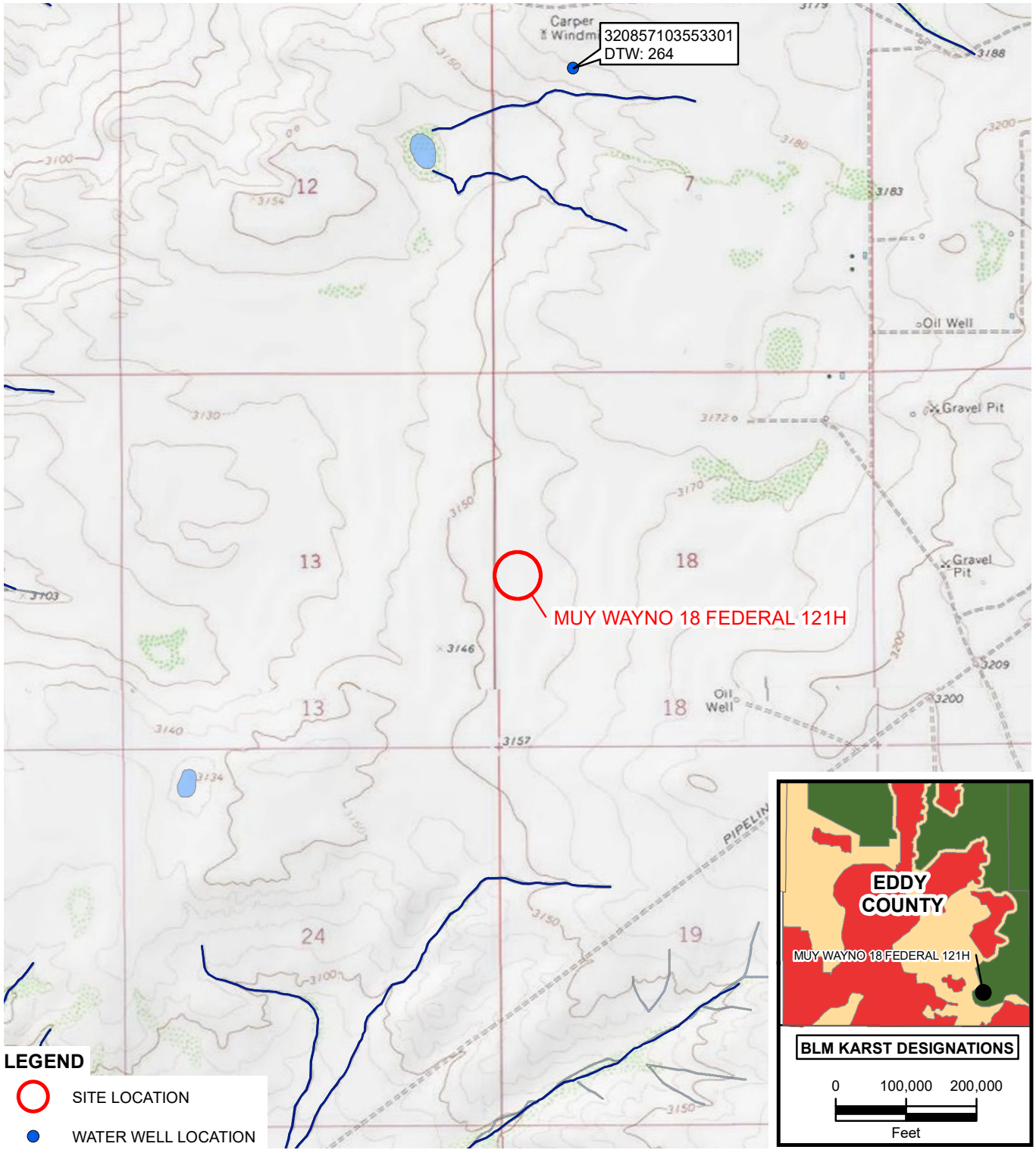
Ashley L. Ager, P.G.
Senior Geologist

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

Appendices:

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

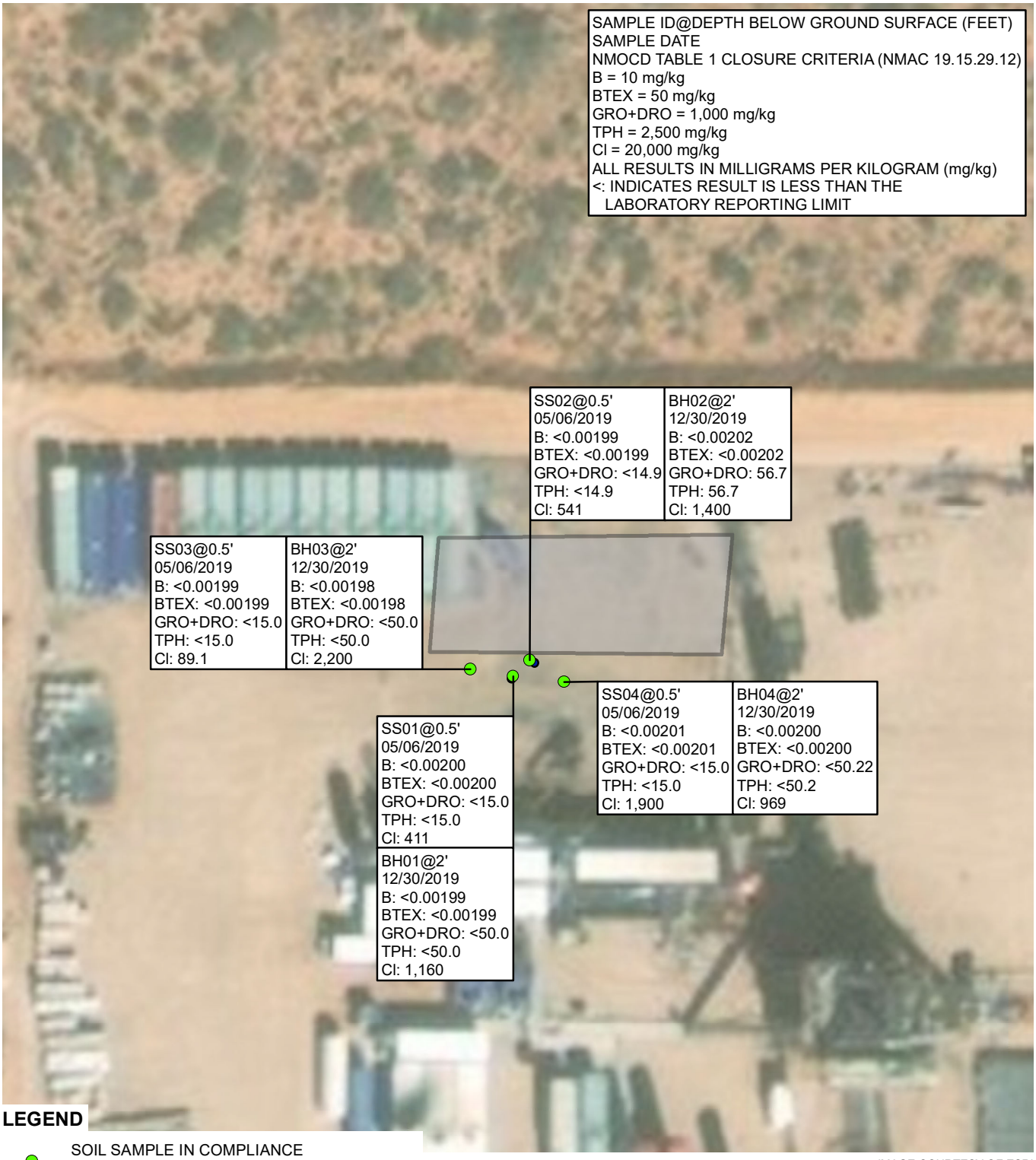
FIGURES



NOTE: REMEDIATION PERMIT NUMBER 2RP-5397
DTW: DEPTH TO WATER (FEET)

FIGURE 1
SITE LOCATION MAP
MUY WAYNO 18 FEDERAL 121H
UNIT L SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919078_MUY WAYNO 18 FED 121H\012919078_FIG01_SL_5397.mxd



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-5397

FIGURE 2
SOIL SAMPLE LOCATIONS
MUY WAYNO 18 FEDERAL 121H
UNIT L SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919078_MUY WAYNO 18 FED 121H\012919078_FIG02_SS LOC_5397.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

MUY WAYNO 18 FEDERAL 121H
REMEDIATION PERMIT NUMBER 2RP-5397
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)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	05/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	411
SS02	0.5	05/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	541
SS03	0.5	05/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	89.1
SS04	0.5	05/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,900
BH01	2	12/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,160
BH02	2	12/30/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	56.7	<49.9	56.7	56.7	1,400
BH03	2	12/30/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,200
BH04	2	12/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	969

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
ORO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - 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

ATTACHMENT 1: LITHOLOGIC/SOIL SAMPLE LOGS

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

Identifier: BH01	Date: 12/30/19
Project Name: Mary Wayne 121H	RP Number: 2RP-5397
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JH / Method: Hand Auger
Lat/Long:	Field Screening: PID / Chlorides / Hole Diameter: 3" / Total Depth: 2'

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1045 M	5.0 1344	0.2	N	BH01	0 1 2	2'	Silty SAND SP SM	Dark red to brown with low plasticity small traces of clay/silt 5-10%. Some organics flora found <1%. No odor
					3 4 5 6 7 8 9 10 11 12			TD @ 2'

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

Identifier: BH02	Date: 12/30/19	
Project Name: Mug Wayno 121H	RP Number: 2RP-5397	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JH	Method: Hand Auger
Lat/Long:	Field Screening: PID / Chloride	Hole Diameter: 3" Total Depth: 2'

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	5.2 1450H	0.2	N	BH02	0 1 2	2'	SPSM	Deep Red to Brown w/ low plasticity small clay/silt traces < 5.10Z. No odor
					3 4 5 6 7 8 9 10 11 12			TD @ 2'

1110

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

Identifier:	Date:
BH03	12/30/19
Project Name:	**RP Number:**
Mesquite Wayne 121H	2RP-5397
Logged By: JH	**Method:** Hand Auger
Lat/Long:	**Field Screening:** PID/Chlorides
Hole Diameter: 3"	**Total Depth:** 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1135 M	6.4 22232	0.2	N	BH03	0 1 2	2'	SP SM	Dep Red Brown w low plasticity. No odor clay/silt traces < 5-10%. Some organic traces < 2%. Caliche traces present
					3 4 5 6 7 8 9 10 11 12			TD @ 2'

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

Identifier: BH04	Date: 12/30/19
Project Name: Mud Wayne 12 11	RP Number: 2RP-5397
Logged By: JH	Method: Hand Auger
Lat/Long:	Field Screening: PID/Chloride
Hole Diameter: 3"	Total Depth: 3'

Comments: TD @ 3'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	4.6 1148.0	0.2	N	BH04	2	2'	SPSM	Deep red/brown. low plasticity. No odor clay & silt traces <10%
		TD @ 3'			3			

0 1 2 3 4 5 6 7 8 9 10 11 12

ATTACHMENT 2: PHOTOGRAPHIC LOG

Southern view of release area during delineation soil sampling activities.

Project: 012919078	XTO Energy, Inc. MUY WAYNO 18 FEDERAL 121H	LTE Advancing Opportunity
December 30, 2019	Photographic Log	

Northern view of release area during delineation soil sampling activities.

Project: 012919078	XTO Energy, Inc. MUY WAYNO 18 FEDERAL 121H	LTE Advancing Opportunity
December 30, 2019	Photographic Log	

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 623520

for

LT Environmental, Inc.

Project Manager: Ashley Ager

Muy Wayno 18 Fed 121H

15-MAY-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)

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-MAY-19

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

Reference: XENCO Report No(s): **623520**
Muy Wayno 18 Fed 121H
Project Address: Delaware Basin

Ashley Ager:

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) 623520. 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. 623520 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	05-06-19 13:40	.5 ft	623520-001
SS02	S	05-06-19 13:45	.5 ft	623520-002
SS03	S	05-06-19 13:55	.5 ft	623520-003
SS04	S	05-06-19 14:05	.5 ft	623520-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Muy Wayno 18 Fed 121H

Project ID:
Work Order Number(s): *623520*

Report Date: *15-MAY-19*
Date Received: *05/08/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3088707 Inorganic Anions by EPA 300
Lab Sample ID 623790-001 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: 623520-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3089051 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 623520

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno 18 Fed 121H

Project Id:

Contact: Ashley Ager

Project Location: Delaware Basin

Date Received in Lab: Wed May-08-19 01:23 pm

Report Date: 15-MAY-19

Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	623520-001		623520-002		623520-003		623520-004							
	Field Id:	SS01		SS02		SS03		SS04							
	Depth:	.5- ft		.5- ft		.5- ft		.5- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	May-06-19 13:40		May-06-19 13:45		May-06-19 13:55		May-06-19 14:05							
BTEX by EPA 8021B	*Extracted:*	May-14-19 10:30		May-14-19 10:30		May-14-19 10:30		May-14-19 10:30							
	Analyzed:	May-14-19 14:45		May-14-19 15:05		May-14-19 15:25		May-14-19 15:44							
	Units/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						
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201						
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201						
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402						
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201						
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201						
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201						
Chloride by EPA 300	*Extracted:*	May-10-19 10:00		May-10-19 10:00		May-10-19 10:00		May-10-19 10:00							
	Analyzed:	May-10-19 12:51		May-10-19 13:06		May-10-19 13:11		May-10-19 13:27							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		411	5.03	541	5.03	89.1	5.04	1900	25.2						
TPH by SW8015 Mod	*Extracted:*	May-10-19 09:00		May-10-19 09:00		May-10-19 09:00		May-10-19 09:00							
	Analyzed:	May-10-19 19:57		May-10-19 20:18		May-10-19 20:38		May-10-19 20:58							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Total GRO-DRO		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-001	Date Collected:	05.06.19 13.40	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	SPC	Date Prep:	05.10.19 10.00	Basis:	Wet Weight
Seq Number:	3088707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**411**	5.03	mg/kg	05.10.19 12.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.10.19 09.00	Basis:	Wet Weight
Seq Number:	3088788				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.10.19 19.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.10.19 19.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.10.19 19.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.10.19 19.57	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.10.19 19.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.10.19 19.57	
o-Terphenyl	84-15-1	103	%	70-135	05.10.19 19.57	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-001	Date Collected:	05.06.19 13.40	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.14.19 10.30	Basis:	Wet Weight
Seq Number:	3089051				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.14.19 14.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.14.19 14.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.14.19 14.45	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.14.19 14.45	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-002	Date Collected:	05.06.19 13.45	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	SPC	Date Prep:	05.10.19 10.00	Basis:	Wet Weight
Seq Number:	3088707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**541**	5.03	mg/kg	05.10.19 13.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.10.19 09.00	Basis:	Wet Weight
Seq Number:	3088788				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	05.10.19 20.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	05.10.19 20.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	05.10.19 20.18	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.10.19 20.18	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	05.10.19 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.10.19 20.18	
o-Terphenyl	84-15-1	102	%	70-135	05.10.19 20.18	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-002	Date Collected:	05.06.19 13.45	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.14.19 10.30	Basis:	Wet Weight
Seq Number:	3089051				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.14.19 15.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.14.19 15.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.14.19 15.05	
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.14.19 15.05	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-003	Date Collected:	05.06.19 13.55	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	SPC	Date Prep:	05.10.19 10.00	Basis:	Wet Weight
Seq Number:	3088707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.1**	5.04	mg/kg	05.10.19 13.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.10.19 09.00	Basis:	Wet Weight
Seq Number:	3088788				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.10.19 20.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.10.19 20.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.10.19 20.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.10.19 20.38	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.10.19 20.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.10.19 20.38	
o-Terphenyl	84-15-1	97	%	70-135	05.10.19 20.38	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-003	Date Collected:	05.06.19 13.55	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.14.19 10.30	Basis:	Wet Weight
Seq Number:	3089051				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.14.19 15.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.14.19 15.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.14.19 15.25	
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.14.19 15.25	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-004	Date Collected:	05.06.19 14.05	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	SPC	Date Prep:	05.10.19 10.00	Basis:	Wet Weight
Seq Number:	3088707				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1900**	25.2	mg/kg	05.10.19 13.27		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.10.19 09.00	Basis:	Wet Weight
Seq Number:	3088788				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.10.19 20.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	05.10.19 20.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	05.10.19 20.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.10.19 20.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	05.10.19 20.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.10.19 20.58	
o-Terphenyl	84-15-1	102	%	70-135	05.10.19 20.58	

Certificate of Analytical Results 623520

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 121H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	05.08.19 13.23
Lab Sample Id:	623520-004	Date Collected:	05.06.19 14.05	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	05.14.19 10.30	Basis:	Wet Weight
Seq Number:	3089051				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.14.19 15.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.14.19 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.14.19 15.44	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.14.19 15.44	

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 623520

LT Environmental, Inc.

Muy Wayno 18 Fed 121H

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3088707 Matrix: Solid Date Prep: 05.10.19
MB Sample Id: 7677644-1-BLK LCS Sample Id: 7677644-1-BKS LCSD Sample Id: 7677644-1-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	239	96	242	97	90-110	1	20	mg/kg	05.10.19 11:28	

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3088707 Matrix: Soil Date Prep: 05.10.19
Parent Sample Id: 623520-001 MS Sample Id: 623520-001 S MSD Sample Id: 623520-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	411	252	634	88	608	78	90-110	4	20	mg/kg	05.10.19 12:56	X

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3088707 Matrix: Soil Date Prep: 05.10.19
Parent Sample Id: 623790-001 MS Sample Id: 623790-001 S MSD Sample Id: 623790-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	753	259	906	59	892	54	90-110	2	20	mg/kg	05.10.19 11:44	X

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Seq Number: 3088788 Matrix: Solid Date Prep: 05.10.19
MB Sample Id: 7677669-1-BLK LCS Sample Id: 7677669-1-BKS LCSD Sample Id: 7677669-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	970	97	956	96	70-135	1	20	mg/kg	05.10.19 12:56	
Diesel Range Organics (DRO)	<8.13	1000	982	98	967	97	70-135	2	20	mg/kg	05.10.19 12:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		124		124		70-135	%	05.10.19 12:56
o-Terphenyl	93		126		122		70-135	%	05.10.19 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 623520

LT Environmental, Inc.

Muy Wayno 18 Fed 121H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3088788 — Matrix: Soil — Date Prep: 05.10.19
Parent Sample Id: 623380-001 — MS Sample Id: 623380-001 S — MSD Sample Id: 623380-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.98	997	973	98	978	98	70-135	1	20	mg/kg	05.10.19 13:56	
Diesel Range Organics (DRO)	<8.10	997	1010	101	1020	102	70-135	1	20	mg/kg	05.10.19 13:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		123		70-135	%	05.10.19 13:56
o-Terphenyl	101		100		70-135	%	05.10.19 13:56

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3089051 — Matrix: Solid — Date Prep: 05.14.19
MB Sample Id: 7677859-1-BLK — LCS Sample Id: 7677859-1-BKS — LCSD Sample Id: 7677859-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.106	105	0.111	111	70-130	5	35	mg/kg	05.14.19 23:35	
Toluene	<0.000459	0.101	0.0988	98	0.103	103	70-130	4	35	mg/kg	05.14.19 23:35	
Ethylbenzene	<0.000569	0.101	0.105	104	0.109	109	70-130	4	35	mg/kg	05.14.19 23:35	
m,p-Xylenes	<0.00102	0.202	0.217	107	0.226	113	70-130	4	35	mg/kg	05.14.19 23:35	
o-Xylene	<0.000347	0.101	0.105	104	0.109	109	70-130	4	35	mg/kg	05.14.19 23:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		102		104		70-130	%	05.14.19 23:35
4-Bromofluorobenzene	84		99		102		70-130	%	05.14.19 23:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3089051 — Matrix: Soil — Date Prep: 05.14.19
Parent Sample Id: 623519-001 — MS Sample Id: 623519-001 S — MSD Sample Id: 623519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00120	0.0998	0.105	104	0.110	108	70-130	5	35	mg/kg	05.14.19 12:13	
Toluene	0.00286	0.0998	0.0903	88	0.0992	95	70-130	9	35	mg/kg	05.14.19 12:13	
Ethylbenzene	0.00254	0.0998	0.0874	85	0.0989	95	70-130	12	35	mg/kg	05.14.19 12:13	
m,p-Xylenes	0.00644	0.200	0.178	86	0.203	98	70-130	13	35	mg/kg	05.14.19 12:13	
o-Xylene	0.00299	0.0998	0.0862	83	0.0984	94	70-130	13	35	mg/kg	05.14.19 12:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	05.14.19 12:13
4-Bromofluorobenzene	101		101		70-130	%	05.14.19 12:13

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: 623520

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

Project Manager:	Ashley Ager	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, Tx 79705
Phone:	432.704.5178	Email:	Ggreen@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:	Muy Wayno 18 Fed 121H	Turn Around	
Project Number:		Routine	☑
P.O. Number:	Spill Date - 4/11/2019	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT					
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No		
Temperature (°C):	0.3 | 0.2	Thermometer ID	VE		
Received Intact:	(Yes) No				
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	+0.1		
Sample Custody Seals:	Yes (No) N/A	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS01	S	5/6/19	1340	.5'	1	X	X	X
SS02	S		1345		1			
SS03	S		1355		1			
SS04	S		1405		1			

ANALYSIS REQUEST

Work Order Notes

(32.129519, -103.978497)

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			5/7/19 @ 0920	2		5/10/19 1323
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05/08/2019 01:23:00 PM

Work Order #: 623520

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**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: 05/08/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 05/08/2019
Jessica Kramer

Analytical Report 647679

for

LT Environmental, Inc.

Project Manager: Dan Moir

Muy Wayno 121H

012919078

31-DEC-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)

31-DEC-19

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

Reference: XENCO Report No(s): **647679**
Muy Wayno 121H
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) 647679. 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. 647679 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 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12-30-19 10:45	2 ft	647679-001
BH02	S	12-30-19 11:10	2 ft	647679-002
BH03	S	12-30-19 11:35	2 ft	647679-003
BH04	S	12-30-19 11:55	2 ft	647679-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Muy Wayno 121H

Project ID: *012919078*
Work Order Number(s): *647679*

Report Date: *31-DEC-19*
Date Received: *12/30/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3112043 TPH by SW8015 Mod
Instrument computer running one hour behind, reset on 12/31/19 by IT.

Batch: LBA-3112077 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3112084 Chloride by EPA 300
Lab Sample ID 647679-003 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: 647679-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 647679

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno 121H

Project Id: 012919078
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon Dec-30-19 03:25 pm
Report Date: 31-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	647679-001		647679-002		647679-003		647679-004					
	Field Id:	BH01		BH02		BH03		BH04					
	Depth:	2- ft		2- ft		2- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Dec-30-19 10:45		Dec-30-19 11:10		Dec-30-19 11:35		Dec-30-19 11:55					
BTEX by EPA 8021B	*Extracted:*	Dec-30-19 16:30		Dec-30-19 16:30		Dec-30-19 16:30		Dec-30-19 17:10					
	Analyzed:	Dec-30-19 17:50		Dec-30-19 18:07		Dec-30-19 18:25		Dec-30-19 18:42					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
m,p-Xylenes		<0.00398	0.00398	<0.00403	0.00403	<0.00397	0.00397	<0.00401	0.00401				
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
Total Xylenes		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
Total BTEX		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200				
Chloride by EPA 300	*Extracted:*	Dec-30-19 16:30		Dec-30-19 16:30		Dec-30-19 16:30		Dec-30-19 16:30					
	Analyzed:	Dec-30-19 17:05		Dec-30-19 17:11		Dec-30-19 17:17		Dec-30-19 17:36					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		1160	20.0	1400	20.0	2200	20.1	969	20.2				
TPH by SW8015 Mod	*Extracted:*	Dec-30-19 15:50		Dec-30-19 15:50		Dec-30-19 15:50		Dec-30-19 15:50					
	Analyzed:	** ** ** **		** ** ** **		** ** ** **		Dec-30-19 17:13					
	Units/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	<50.0	50.0	<50.2	50.2				
Diesel Range Organics (DRO)		<50.0	50.0	56.7	49.9	<50.0	50.0	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2				
Total GRO-DRO		<50.0	50.0	56.7	49.9	<50.0	50.0	<50.2	50.2				
Total TPH		<50.0	50.0	56.7	49.9	<50.0	50.0	<50.2	50.2				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-001	Date Collected:	12.30.19 10.45	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112084				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1160**	20.0	mg/kg	12.30.19 17.05		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.30.19 15.50	Basis:	Wet Weight
Seq Number:	3112043				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.30.19 15.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.30.19 15.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.30.19 15.25	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.30.19 15.25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.30.19 15.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	12.30.19 15.25	
o-Terphenyl	84-15-1	121	%	70-135	12.30.19 15.25	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-001	Date Collected:	12.30.19 10.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.30.19 17.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.30.19 17.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.30.19 17.50	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.30.19 17.50	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-002	Date Collected:	12.30.19 11.10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112084				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1400**	20.0	mg/kg	12.30.19 17.11		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.30.19 15.50	Basis:	Wet Weight
Seq Number:	3112043				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.30.19 15.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	**56.7**	49.9	mg/kg	12.30.19 15.25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.30.19 15.25	U	1
Total GRO-DRO	PHC628	**56.7**	49.9	mg/kg	12.30.19 15.25		1
Total TPH	PHC635	**56.7**	49.9	mg/kg	12.30.19 15.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.30.19 15.25	
o-Terphenyl	84-15-1	109	%	70-135	12.30.19 15.25	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-002	Date Collected:	12.30.19 11.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.30.19 18.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.30.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.30.19 18.07	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.30.19 18.07	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-003	Date Collected:	12.30.19 11.35	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112084				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2200**	20.1	mg/kg	12.30.19 17.17		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.30.19 15.50	Basis:	Wet Weight
Seq Number:	3112043				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.30.19 15.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.30.19 15.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.30.19 15.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.30.19 15.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.30.19 15.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.30.19 15.45	
o-Terphenyl	84-15-1	109	%	70-135	12.30.19 15.45	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-003	Date Collected:	12.30.19 11.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.30.19 18.25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.30.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.30.19 18.25	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.30.19 18.25	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-004	Date Collected:	12.30.19 11.55	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 16.30	Basis:	Wet Weight
Seq Number:	3112084				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**969**	20.2	mg/kg	12.30.19 17.36		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.30.19 15.50	Basis:	Wet Weight
Seq Number:	3112043				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.30.19 17.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.30.19 17.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.30.19 17.13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.30.19 17.13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.30.19 17.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.30.19 17.13	
o-Terphenyl	84-15-1	111	%	70-135	12.30.19 17.13	

Certificate of Analytical Results 647679

LT Environmental, Inc., Arvada, CO

Muy Wayno 121H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.30.19 15.25
Lab Sample Id:	647679-004	Date Collected:	12.30.19 11.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.30.19 17.10	Basis:	Wet Weight
Seq Number:	3112077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.30.19 18.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.30.19 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.30.19 18.42	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.30.19 18.42	

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 647679

LT Environmental, Inc.

Muy Wayno 121H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112084 — Matrix: Solid — Date Prep: 12.30.19
MB Sample Id: 7693510-1-BLK — LCS Sample Id: 7693510-1-BKS — LCSD Sample Id: 7693510-1-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	264	106	270	108	90-110	2	20	mg/kg	12.30.19 14:45	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112084 — Matrix: Soil — Date Prep: 12.30.19
Parent Sample Id: 647639-001 — MS Sample Id: 647639-001 S — MSD Sample Id: 647639-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7480	203	7590	54	7570	45	90-110	0	20	mg/kg	12.30.19 15:03	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112084 — Matrix: Soil — Date Prep: 12.30.19
Parent Sample Id: 647679-003 — MS Sample Id: 647679-003 S — MSD Sample Id: 647679-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2200	201	2360	80	2350	75	90-110	0	20	mg/kg	12.30.19 17:24	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3112043 — Matrix: Solid — Date Prep: 12.30.19
MB Sample Id: 7693514-1-BLK — LCS Sample Id: 7693514-1-BKS — LCSD Sample Id: 7693514-1-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	1140	114	1070	107	70-135	6	35	mg/kg	12.30.19 12:29	
Diesel Range Organics (DRO)	<50.0	1000	1260	126	1220	122	70-135	3	35	mg/kg	12.30.19 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		128		121		70-135	%	12.30.19 12:29
o-Terphenyl	109		123		119		70-135	%	12.30.19 12:29

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3112043 — Matrix: Solid — Date Prep: 12.30.19
MB Sample Id: 7693514-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.30.19 12:09	

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 647679

LT Environmental, Inc.

Muy Wayno 121H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3112043 — Matrix: Soil — Date Prep: 12.30.19
Parent Sample Id: 647639-001 — MS Sample Id: 647639-001 S — MSD Sample Id: 647639-001 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)	<50.1	1000	1050	105	1120	113	70-135	6	35	mg/kg	12.30.19 12:49	
Diesel Range Organics (DRO)	<50.1	1000	1210	121	1240	125	70-135	2	35	mg/kg	12.30.19 12:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		118		70-135	%	12.30.19 12:49
o-Terphenyl	121		119		70-135	%	12.30.19 12:49

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3112077 — Matrix: Solid — Date Prep: 12.30.19
MB Sample Id: 7693507-1-BLK — LCS Sample Id: 7693507-1-BKS — LCSD Sample Id: 7693507-1-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	0.0926	93	0.100	100	70-130	8	35	mg/kg	12.30.19 13:30	
Toluene	<0.00200	0.100	0.0955	96	0.102	102	70-130	7	35	mg/kg	12.30.19 13:30	
Ethylbenzene	<0.00200	0.100	0.0944	94	0.101	101	71-129	7	35	mg/kg	12.30.19 13:30	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.209	105	70-135	7	35	mg/kg	12.30.19 13:30	
o-Xylene	<0.00200	0.100	0.0945	95	0.101	101	71-133	7	35	mg/kg	12.30.19 13:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		96		99		70-130	%	12.30.19 13:30
4-Bromofluorobenzene	97		95		98		70-130	%	12.30.19 13:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3112077 — Matrix: Soil — Date Prep: 12.30.19
Parent Sample Id: 647639-001 — MS Sample Id: 647639-001 S — MSD Sample Id: 647639-001 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	0.0980	98	0.0957	96	70-130	2	35	mg/kg	12.30.19 14:05	
Toluene	<0.00200	0.0998	0.0953	95	0.0928	93	70-130	3	35	mg/kg	12.30.19 14:05	
Ethylbenzene	<0.00200	0.0998	0.0900	90	0.0877	88	71-129	3	35	mg/kg	12.30.19 14:05	
m,p-Xylenes	0.000782	0.200	0.186	93	0.180	89	70-135	3	35	mg/kg	12.30.19 14:05	
o-Xylene	0.000581	0.0998	0.0913	91	0.0891	89	71-133	2	35	mg/kg	12.30.19 14:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	12.30.19 14:05
4-Bromofluorobenzene	103		106		70-130	%	12.30.19 14:05

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

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: 447679

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 East Green St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jhill@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	Muy Wayne 121H	Turn Around	
Project Number:	012919078	Routine	☐
P.O. Number:	2RP-5397	Rush:	24
Sampler's Name:	Jeremy Hill	Due Date:	1/31/19

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.9	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:	4

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	12/30/19	1045	2'	1	X	X	X
BH02	s		1110		1	X	X	X
BH03	s		1135		1	X	X	X
BH04	s		1155		1	X	X	X
	s							
	s							
	s							
	s							
	s							
	s							

Work Order Notes

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

Sample Comments

discrete

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			12/30/19 15:25	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/30/2019 03:25:00 PM

Work Order #: 647679

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)?	2.9
#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: 12/30/2019

Checklist reviewed by: Jessica Kramer Date: 12/31/2019