

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	NAB1913056417
District RP	2RP-5404
Facility ID	
Application ID	pAB1913055211

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) NAB1913056417
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.129482° Longitude -103.925554°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Muy Wayno 18 Federal #104H	Site Type Production Well Facility
Date Release Discovered 4/15/2019	API# (if applicable) 30-015-44839

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) 7	Volume Recovered (bbls) 5
	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

Wellwork contract crew failed to equalize pump rates. Fluids overflowed a tank into temporary lined containment and onto the well pad. A vacuum truck recovered free fluids. Rates were adjusted and repairs were made. Additional third party resources have been retained to assist with remediation. Remediation activities will begin when frac operations at the well pad are completed.

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Oil Conservation Division

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

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 <u>not</u> 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: <u>Kyle Littrell</u> Signature:  email: <u>Kyle_Littrell@xtoenergy.com</u>	Title: <u>SH&E Supervisor</u> Date: <u>4/26/2019</u> Telephone: <u>432-221-7331</u>
OCD Only Received by:  Date: <u>5/10/2019</u>	

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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?	<u>>100</u> (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.

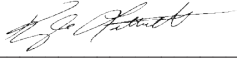
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform 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 SupervisorSignature:  Date: 01/09/2020email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**

Received by: _____ Date: _____

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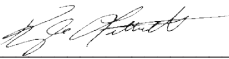
Closure

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 SupervisorSignature:  Date: 01/09/2019email: 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 9, 2020

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210**RE: Closure Request
Muy Wayno 18 Federal #104H
Remediation Permit Number 2RP-5404
Incident Number NAB1913056417
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 #104H (Site) located 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 a 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 respectfully requesting no further action (NFA) for Remediation Permit (RP) Number 2RP-5404.

RELEASE BACKGROUND

On April 15, 2019, pump rates failed to be equalized at the Site and a tank overflowed, resulting in the release of approximately seven barrels (bbls) of produced water into the temporary lined containment and onto the caliche well pad. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately five bbls of produced water were recovered. The pump rates were adjusted and repairs were made. 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 26, 2019 and was subsequently assigned RP Number 2RP-5404.

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





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320857103553301, located approximately 1.38 miles north of the Site. The groundwater well has a depth to groundwater of approximately 264 feet bgs and a total depth of approximately 385 feet bgs. Ground surface elevation at the groundwater well location is 3,170 feet above mean sea level (amsl), which is approximately four feet higher in elevation than the Site. The closest continuously-flowing water or significant watercourse to the Site is a second order tributary to the Pecos River located approximately 4,180 feet to the south. 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 location and 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 September 23, 2019, LTE evaluated the release extent based on information provided on the Form C-141. The temporary lined containment and point of release location were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during site assessment activities. Photographs are included in Attachment 1. Due to operational activities at the Site and the presence of active frac operations equipment, soil sampling activities were not able to be conducted at this time.

On November 7, 2019, following the conclusion of operational activities at the Site and the removal of active frac operations equipment, LTE personnel returned to the Site to assess the lateral extent of impacted soil. LTE personnel collected five preliminary soil samples SS01 through SS05 from within and around the area where the temporary lined containment was previously located from a depth of approximately 0.5 feet bgs. Soil from the preliminary soil samples 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 GPS unit and are depicted on Figure 2.





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The preliminary 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 Carlsbad, New Mexico, 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 the laboratory analytical results for the preliminary soil samples, excavation activities did not appear to be warranted and vertical delineation of soil was conducted. Laboratory analytical results for the preliminary soil samples are presented on Figure 2 and summarized in Table 1.

On November 7, 2019, LTE personnel remained at the Site to vertically delineate potentially impacted soil. Five potholes (PH01 through PH05) were advanced via track-mounted backhoe in the respective locations of preliminary soil samples SS01 through SS05. Potholes PH01 through PH05 were advanced to a depth of 2 feet bgs and a total of two discrete soil samples were collected from each pothole location. Soil from the five boreholes was field screened for volatile aromatic hydrocarbons utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, presented on Attachment 2. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. All potholes were backfilled with the removed soil. The potholes and delineation soil sample locations are depicted on Figure 2.

ANALYTICAL RESULTS

Laboratory analytical results indicated that benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS01 through SS05 and in delineation soil samples PH01/PH01A through PH05/PH05A, collected at depths ranging from 0.5 feet to two feet bgs. Laboratory analytical results are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

Preliminary soil samples SS01 through SS05 were collected from within and around the area where the temporary lined containment was previously located at depths of 0.5 feet bgs to assess the presence or absence of impacted soil. Delineation potholes PH01 through PH05 were advanced in the same respective locations as preliminary soil samples SS01 through SS05 to vertically delineate potential impacts to soil as a result of the April 15, 2019 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. Additionally, field screening of





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soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release area.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified and no soil excavation was required as a result of the release of produced water. XTO requests NFA for RP Number 2RP-5404.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in cursive script, reading 'Carol Ann Whaley'.

Carol Ann Whaley
Staff Geologist

A handwritten signature in cursive script, reading 'Ashley L. Ager'.

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

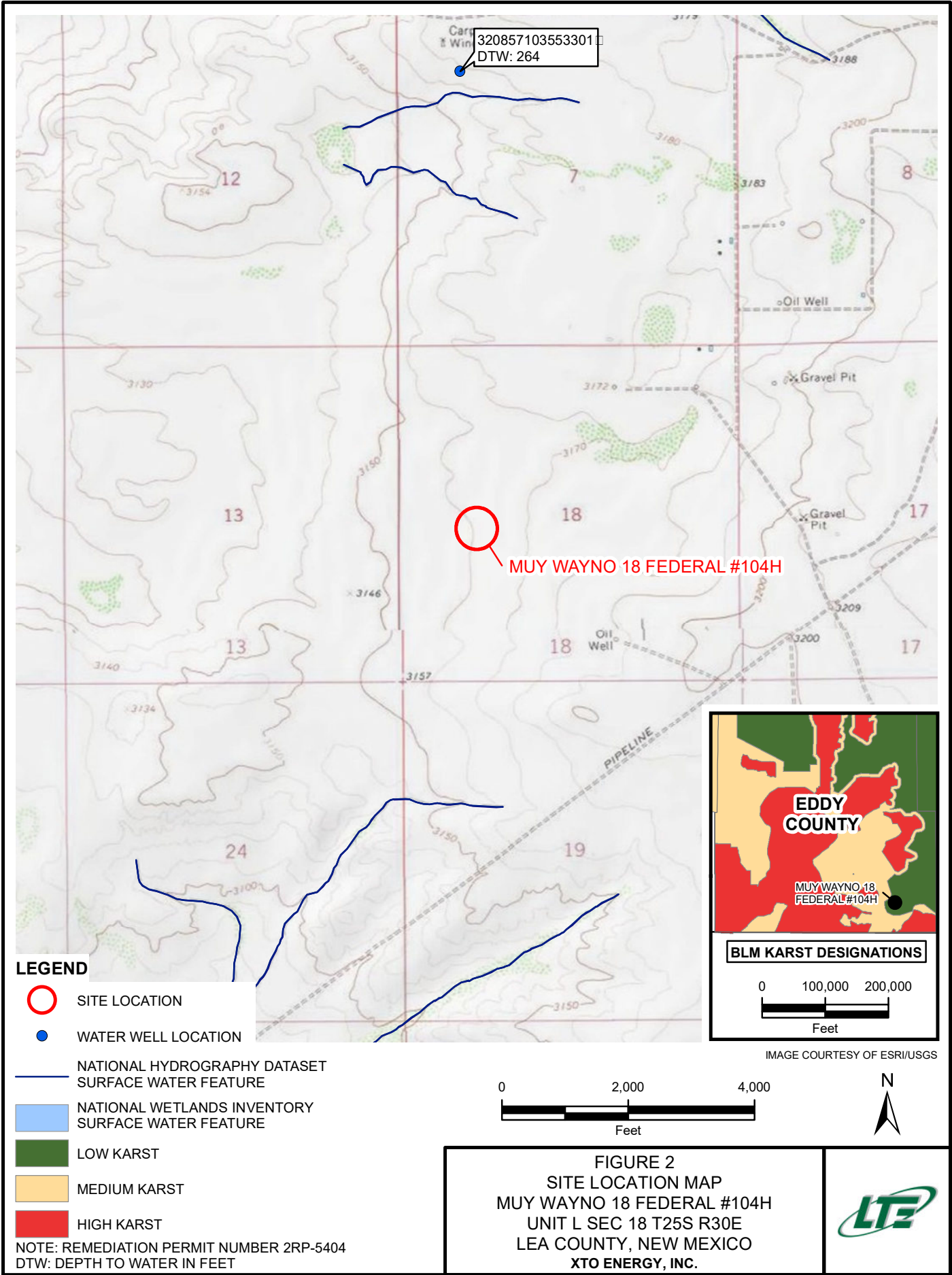
Appendices:

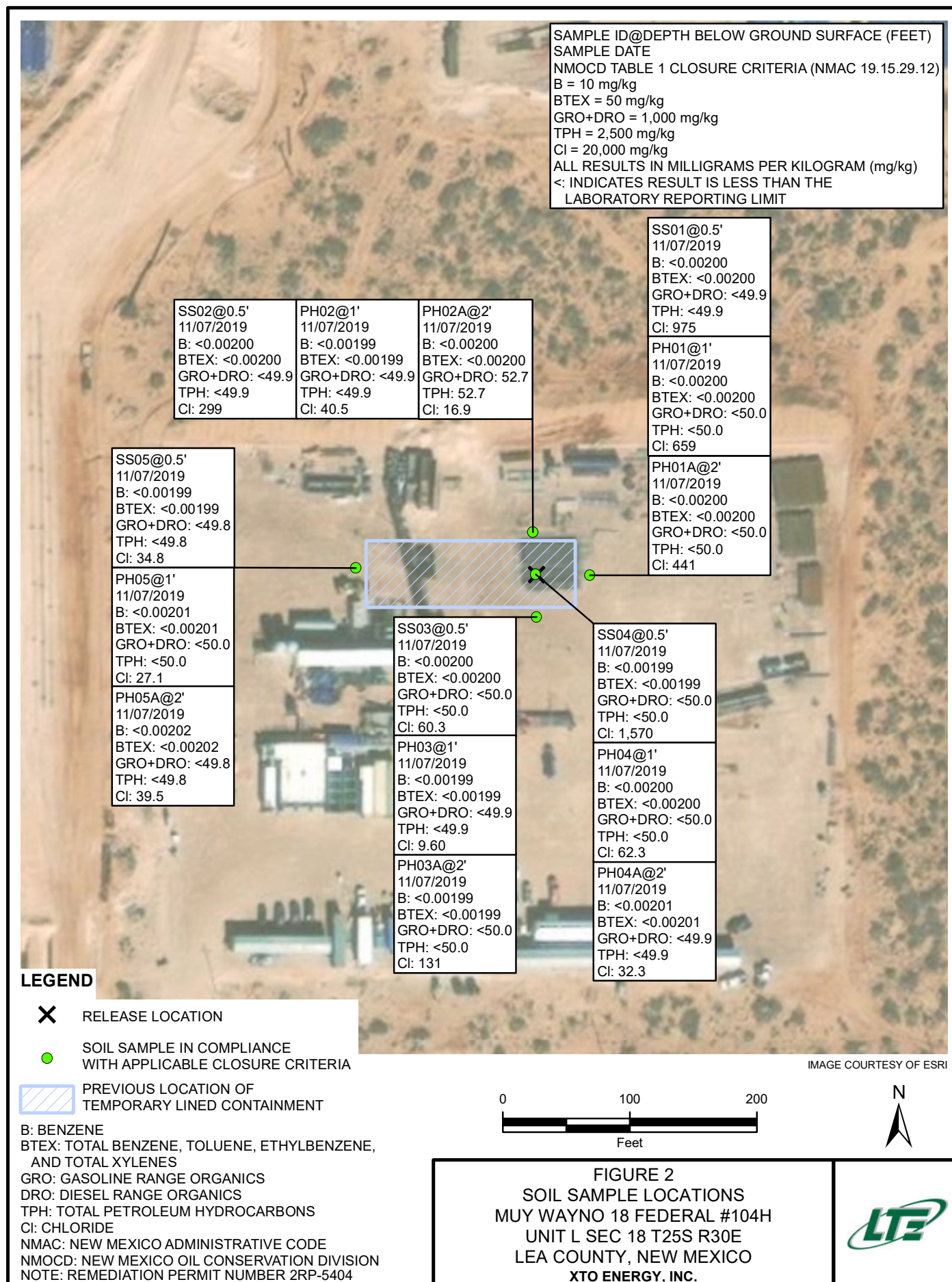
Figure 1 Site Location Map
Figure 2 Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Photographic Log
Attachment 2 Lithologic/Soil Sampling Logs
Attachment 3 Laboratory Analytical Reports



FIGURES







TABLE



**TABLE 1
SOIL ANALYTICAL RESULTS**

**MUY WAYNO 18 FEDERAL #104H
REMEDIATION PERMIT NUMBER 2RP-5404
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	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	975
SS02	0.5	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	299
SS03	0.5	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	60.3
SS04	0.5	11/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,570
SS05	0.5	11/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	34.8
PH01	1	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	659
PH01A	2	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	441
PH02	1	11/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	40.5
PH02A	2	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	52.7	<49.8	52.7	52.7	16.9
PH03	1	11/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	9.6
PH03A	2	11/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	131
PH04	1	11/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	62.3
PH04A	2	11/07/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	32.3
PH05	1	11/07/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	27.1
PH05A	2	11/07/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	39.5

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

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: PHOTOGRAPHIC LOG





Southern view of release area and point of release during site assessment activities.

Project: 012919077	XTO Energy, Inc. Muy Wayno 18 Federal #104H	 Advancing Opportunity
September 23, 2019	Photographic Log	



Southern view of release area and caliche well pad during delineation activities.

Project: 012919077	XTO Energy, Inc. Muy Wayno 18 Federal #104H	
November 7, 2019	Photographic Log	

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOGS



 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation					Identifier: PH 01		Date: 11/07/2019		
					Project Name: MUYWA-1018 FCD 104H		RP Number: 22P-5404		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: GG		Method: Excavator		
Lat/Long:			Field Screening: CTS/PID			Hole Diameter:		Total Depth: 2'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks	
0915	D 1204	0	N	5501	0			caliche, white-grey, low plasticity	
1040	D 1114	0	N	PH01	1			sandy loam, brown, low-med plasticity	
1045	D 520	0	N	PH04	2			sandy loam, brown, low-med plasticity	
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				
					12				

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH02	Date:
		Project Name: muynayno 18 Fed 104	RP Number: 2RP-5404
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: GG	Method: Excavator
Lat/Long:	Field Screening: CTS/PID	Hole Diameter:	Total Depth: 2'
Comments:			

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<180	0	N	SS02	0			white-grey caliche, low plasticity
1050 D	<180	0	N	PH02	1			Dark brown sandy loam, low-med plasticity
1055 D	<180	0	N	PH02A	2			Brown, sandy loam, low med plasticity
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: P1104 Project Name: my way no 18 Fed 104	Date: RP Number: 2RP-5404					
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: GG Hole Diameter:	Method: Excavator Total Depth: 2'					
Lat/Long:		Field Screening: CTSPID						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	1444	0	N	SS04	0			white-grey, Caliche, low plasticity
D	2800	0	N	PH04	1			Brown, sandy loam, low med plasticity
D	2150	0	N	PH04A	2			Brown, Sandy loam, low
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: PH05		Date: 11/07/2019		
				Project Name: maywayno 18 Fed 104H		RP Number: 2RP-5404		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: GG		Method: Excavator		
Lat/Long:		Field Screening: CTS/PID		Hole Diameter:		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<180	0	N	SS05	0			caliche, white-grey low plasticity
D	<180	0	N	PH05	1			Sandy loam, brown low-med plasticity
D	<180	0	N	PH05A	2			Brown sandy loam low-med plasticity
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS



Analytical Report 642642

**for
LT Environmental, Inc.**

Project Manager: Dan Moir

Muy Wayno 18 Fed 104 H

13-NOV-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



13-NOV-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **642642**

Muy Wayno 18 Fed 104 H

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) 642642. 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. 642642 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 Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 642642****LT Environmental, Inc., Arvada, CO**

Muy Wayno 18 Fed 104 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11-07-19 09:15	0.5 ft	642642-001
SS02	S	11-07-19 09:20	0.5 ft	642642-002
SS03	S	11-07-19 09:35	0.5 ft	642642-003
SS04	S	11-07-19 09:40	0.5 ft	642642-004
SS05	S	11-07-19 09:50	0.5 ft	642642-005
PH01	S	11-07-19 10:40	1 ft	642642-006
PH01A	S	11-07-19 10:45	2 ft	642642-007
PH02	S	11-07-19 10:50	1 ft	642642-008
PH02A	S	11-07-19 10:55	2 ft	642642-009
PH03	S	11-07-19 11:05	1 ft	642642-010
PH03A	S	11-07-19 11:10	2 ft	642642-011
PH04	S	11-07-19 11:15	1 ft	642642-012
PH04A	S	11-07-19 11:20	2 ft	642642-013
PH05	S	11-07-19 11:50	1 ft	642642-014
PH05A	S	11-07-19 11:55	2 ft	642642-015



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Muy Wayno 18 Fed 104 H

Project ID:

Work Order Number(s): 642642

Report Date: 13-NOV-19

Date Received: 11/08/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3107244 BTEX by EPA 8021B

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



Certificate of Analysis Summary 642642

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno 18 Fed 104 H

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am

Report Date: 13-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642642-001	642642-002	642642-003	642642-004	642642-005	642642-006
	<i>Field Id:</i>	SS01	SS02	SS03	SS04	SS05	PH01
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 09:15	Nov-07-19 09:20	Nov-07-19 09:35	Nov-07-19 09:40	Nov-07-19 09:50	Nov-07-19 10:40
BTEX by EPA 8021B SUB: T104704400-19-19	<i>Extracted:</i>	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00
	<i>Analyzed:</i>	Nov-12-19 18:35	Nov-12-19 18:55	Nov-12-19 19:15	Nov-12-19 19:35	Nov-12-19 19:56	Nov-12-19 20:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300 SUB: T104704400-19-19	<i>Extracted:</i>	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00
	<i>Analyzed:</i>	Nov-11-19 11:51	Nov-11-19 11:58	Nov-11-19 12:25	Nov-11-19 12:31	Nov-11-19 12:51	Nov-11-19 12:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		975 25.3	299 5.05	60.3 4.95	1570 25.2	34.8 4.99	659 4.95
TPH by SW8015 Mod SUB: T104704400-19-19	<i>Extracted:</i>	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00
	<i>Analyzed:</i>	Nov-11-19 16:00	Nov-11-19 16:57	Nov-11-19 17:16	Nov-11-19 17:35	Nov-11-19 17:54	Nov-11-19 18:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0
Total GRO-DRO		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0
Total TPH		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 642642

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno 18 Fed 104 H

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am

Report Date: 13-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	642642-007	642642-008	642642-009	642642-010	642642-011	642642-012
	<i>Field Id:</i>	PH01A	PH02	PH02A	PH03	PH03A	PH04
	<i>Depth:</i>	2- ft	1- ft	2- ft	1- ft	2- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-07-19 10:45	Nov-07-19 10:50	Nov-07-19 10:55	Nov-07-19 11:05	Nov-07-19 11:10	Nov-07-19 11:15
BTEX by EPA 8021B SUB: T104704400-19-19	<i>Extracted:</i>	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00
	<i>Analyzed:</i>	Nov-12-19 21:34	Nov-12-19 21:54	Nov-12-19 22:14	Nov-12-19 22:35	Nov-12-19 22:55	Nov-12-19 23:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398	<0.00398 0.00398	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300 SUB: T104704400-19-19	<i>Extracted:</i>	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:30
	<i>Analyzed:</i>	Nov-11-19 13:05	Nov-11-19 13:11	Nov-11-19 13:18	Nov-11-19 13:25	Nov-11-19 13:31	Nov-11-19 14:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		441 5.02	40.5 4.98	16.9 5.00	9.59 4.96	131 5.04	62.3 5.00
TPH by SW8015 Mod SUB: T104704400-19-19	<i>Extracted:</i>	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00
	<i>Analyzed:</i>	Nov-11-19 18:32	Nov-11-19 18:51	Nov-11-19 19:10	Nov-11-19 19:29	Nov-11-19 20:07	Nov-11-19 20:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	52.7 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0
Total GRO-DRO		<50.0 50.0	<49.9 49.9	52.7 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0
Total TPH		<50.0 50.0	<49.9 49.9	52.7 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 642642

LT Environmental, Inc., Arvada, CO

Project Name: Muy Wayno 18 Fed 104 H

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-08-19 08:51 am

Report Date: 13-NOV-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	642642-013	642642-014	642642-015			
	Field Id:	PH04A	PH05	PH05A			
	Depth:	2- ft	1- ft	2- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Nov-07-19 11:20	Nov-07-19 11:50	Nov-07-19 11:55			
BTEX by EPA 8021B SUB: T104704400-19-19	Extracted:	Nov-12-19 14:00	Nov-12-19 14:00	Nov-12-19 14:00			
	Analyzed:	Nov-12-19 23:35	Nov-12-19 23:55	Nov-13-19 00:15			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Toluene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
m,p-Xylenes		<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404			
o-Xylene		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Total Xylenes		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Total BTEX		<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202			
Chloride by EPA 300 SUB: T104704400-19-19	Extracted:	Nov-11-19 10:30	Nov-11-19 10:30	Nov-11-19 10:30			
	Analyzed:	Nov-11-19 14:31	Nov-11-19 14:38	Nov-11-19 14:44			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		32.3 4.97	27.1 4.99	39.5 5.02			
TPH by SW8015 Mod SUB: T104704400-19-19	Extracted:	Nov-11-19 10:00	Nov-11-19 10:00	Nov-11-19 10:00			
	Analyzed:	Nov-11-19 20:45	Nov-11-19 21:05	Nov-11-19 21:24			
	Units/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			
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Total GRO-DRO		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Total TPH		<49.9 49.9	<50.0 50.0	<49.8 49.8			

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS01	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-001	Date Collected: 11.07.19 09.15	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	975	25.3	mg/kg	11.11.19 11.51		5

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.19 16.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.19 16.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.19 16.00	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.11.19 16.00	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.19 16.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.11.19 16.00	
o-Terphenyl	84-15-1	98	%	70-135	11.11.19 16.00	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS01	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-001	Date Collected: 11.07.19 09.15	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.12.19 18.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 18.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.12.19 18.35		
1,4-Difluorobenzene	540-36-3	117	%	70-130	11.12.19 18.35		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS02	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-002	Date Collected: 11.07.19 09.20	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	299	5.05	mg/kg	11.11.19 11.58		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.19 16.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.19 16.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.19 16.57	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.11.19 16.57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.19 16.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.11.19 16.57	
o-Terphenyl	84-15-1	104	%	70-135	11.11.19 16.57	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS02	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-002	Date Collected: 11.07.19 09.20	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.19 18.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 18.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	11.12.19 18.55		
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.12.19 18.55		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **SS03** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642642-003 Date Collected: 11.07.19 09.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107080 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.3	4.95	mg/kg	11.11.19 12.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107112 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 17.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 17.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 17.16	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 17.16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.11.19 17.16	
o-Terphenyl	84-15-1	97	%	70-135	11.11.19 17.16	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS03	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-003	Date Collected: 11.07.19 09.35	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.19 19.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 19.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	11.12.19 19.15		
1,4-Difluorobenzene	540-36-3	115	%	70-130	11.12.19 19.15		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS04	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-004	Date Collected: 11.07.19 09.40	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1570	25.2	mg/kg	11.11.19 12.31		5

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 17.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 17.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 17.35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 17.35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.11.19 17.35	
o-Terphenyl	84-15-1	101	%	70-135	11.11.19 17.35	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS04	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-004	Date Collected: 11.07.19 09.40	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 19.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 19.35	U	1
Surrogate							
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	11.12.19 19.35		
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.12.19 19.35		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS05 Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642642-005 Date Collected: 11.07.19 09.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107080 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.8	4.99	mg/kg	11.11.19 12.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107112 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.11.19 17.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.11.19 17.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.11.19 17.54	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.11.19 17.54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.11.19 17.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.11.19 17.54	
o-Terphenyl	84-15-1	94	%	70-135	11.11.19 17.54	



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LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: SS05	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-005	Date Collected: 11.07.19 09.50	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 19.56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 19.56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.12.19 19.56		
1,4-Difluorobenzene	540-36-3	115	%	70-130	11.12.19 19.56		



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LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH01	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-006	Date Collected: 11.07.19 10.40	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	659	4.95	mg/kg	11.11.19 12.58		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 18.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 18.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 18.13	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 18.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 18.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.11.19 18.13	
o-Terphenyl	84-15-1	91	%	70-135	11.11.19 18.13	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH01	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-006	Date Collected: 11.07.19 10.40	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.12.19 20.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 20.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	11.12.19 20.16		
1,4-Difluorobenzene	540-36-3	115	%	70-130	11.12.19 20.16		



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LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH01A**
Lab Sample Id: 642642-007

Matrix: Soil
Date Collected: 11.07.19 10.45

Date Received: 11.08.19 08.51
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3107080

Date Prep: 11.11.19 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	441	5.02	mg/kg	11.11.19 13.05		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3107112

Date Prep: 11.11.19 10.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 18.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 18.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 18.32	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 18.32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 18.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.11.19 18.32	
o-Terphenyl	84-15-1	95	%	70-135	11.11.19 18.32	



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LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH01A**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-007

Date Collected: 11.07.19 10.45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.12.19 21.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 21.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.12.19 21.34		
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.12.19 21.34		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH02	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-008	Date Collected: 11.07.19 10.50	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.5	4.98	mg/kg	11.11.19 13.11		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.19 18.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.19 18.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.19 18.51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.11.19 18.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.19 18.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.11.19 18.51	
o-Terphenyl	84-15-1	92	%	70-135	11.11.19 18.51	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH02**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-008

Date Collected: 11.07.19 10.50

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 21.54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 21.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.12.19 21.54		
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.12.19 21.54		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH02A** Matrix: Soil Date Received: 11.08.19 08.51
 Lab Sample Id: 642642-009 Date Collected: 11.07.19 10.55 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107080 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.9	5.00	mg/kg	11.11.19 13.18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 11.11.19 10.00 Basis: Wet Weight
 Seq Number: 3107112 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.11.19 19.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	52.7	49.8	mg/kg	11.11.19 19.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.11.19 19.10	U	1
Total GRO-DRO	PHC628	52.7	49.8	mg/kg	11.11.19 19.10		1
Total TPH	PHC635	52.7	49.8	mg/kg	11.11.19 19.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.11.19 19.10	
o-Terphenyl	84-15-1	95	%	70-135	11.11.19 19.10	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH02A**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-009

Date Collected: 11.07.19 10.55

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.12.19 22.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 22.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.12.19 22.14		
1,4-Difluorobenzene	540-36-3	114	%	70-130	11.12.19 22.14		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH03	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-010	Date Collected: 11.07.19 11.05	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.59	4.96	mg/kg	11.11.19 13.25		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.19 19.29	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.11.19 19.29	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.11.19 19.29	
o-Terphenyl	84-15-1	93	%	70-135	11.11.19 19.29	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH03**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-010

Date Collected: 11.07.19 11.05

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 22.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 22.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.12.19 22.35		
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.12.19 22.35		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH03A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-011	Date Collected: 11.07.19 11.10	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.00	Basis: Wet Weight
Seq Number: 3107080		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	131	5.04	mg/kg	11.11.19 13.31		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 20.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 20.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 20.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 20.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 20.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.11.19 20.07	
o-Terphenyl	84-15-1	93	%	70-135	11.11.19 20.07	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH03A**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-011

Date Collected: 11.07.19 11.10

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.12.19 22.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.12.19 22.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.12.19 22.55		
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.12.19 22.55		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH04	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-012	Date Collected: 11.07.19 11.15	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.30	Basis: Wet Weight
Seq Number: 3107082		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.3	5.00	mg/kg	11.11.19 14.11		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 20.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 20.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 20.26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 20.26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 20.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.11.19 20.26	
o-Terphenyl	84-15-1	90	%	70-135	11.11.19 20.26	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH04**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-012

Date Collected: 11.07.19 11.15

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.12.19 23.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.12.19 23.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.12.19 23.15		
4-Bromofluorobenzene	460-00-4	94	%	70-130	11.12.19 23.15		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH04A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-013	Date Collected: 11.07.19 11.20	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.30	Basis: Wet Weight
Seq Number: 3107082		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.3	4.97	mg/kg	11.11.19 14.31		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.11.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.11.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.11.19 20.45	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.11.19 20.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.11.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.11.19 20.45	
o-Terphenyl	84-15-1	89	%	70-135	11.11.19 20.45	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH04A**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-013

Date Collected: 11.07.19 11.20

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.12.19 23.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.12.19 23.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.12.19 23.35		
1,4-Difluorobenzene	540-36-3	114	%	70-130	11.12.19 23.35		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH05	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-014	Date Collected: 11.07.19 11.50	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.30	Basis: Wet Weight
Seq Number: 3107082		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.1	4.99	mg/kg	11.11.19 14.38		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.11.19 21.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.11.19 21.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.11.19 21.05	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.11.19 21.05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.11.19 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.11.19 21.05	
o-Terphenyl	84-15-1	91	%	70-135	11.11.19 21.05	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH05	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-014	Date Collected: 11.07.19 11.50	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.12.19 14.00	Basis: Wet Weight
Seq Number: 3107244		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.12.19 23.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.12.19 23.55	U	1
Surrogate							
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.12.19 23.55		
4-Bromofluorobenzene	460-00-4	94	%	70-130	11.12.19 23.55		



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: PH05A	Matrix: Soil	Date Received: 11.08.19 08.51
Lab Sample Id: 642642-015	Date Collected: 11.07.19 11.55	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.11.19 10.30	Basis: Wet Weight
Seq Number: 3107082		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.5	5.02	mg/kg	11.11.19 14.44		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Basis: Wet Weight
Seq Number: 3107112	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.11.19 21.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.11.19 21.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.11.19 21.24	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.11.19 21.24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.11.19 21.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.11.19 21.24	
o-Terphenyl	84-15-1	95	%	70-135	11.11.19 21.24	



Certificate of Analytical Results 642642

LT Environmental, Inc., Arvada, CO

Muy Wayno 18 Fed 104 H

Sample Id: **PH05A**

Matrix: Soil

Date Received: 11.08.19 08.51

Lab Sample Id: 642642-015

Date Collected: 11.07.19 11.55

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.12.19 14.00

Basis: Wet Weight

Seq Number: 3107244

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.13.19 00.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.13.19 00.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.13.19 00.15		
1,4-Difluorobenzene	540-36-3	115	%	70-130	11.13.19 00.15		



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 **SQL** Sample 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 642642

LT Environmental, Inc.

Muy Wayno 18 Fed 104 H

Analytical Method: Chloride by EPA 300

Seq Number: 3107080

MB Sample Id: 7690014-1-BLK

Matrix: Solid

LCS Sample Id: 7690014-1-BKS

Prep Method: E300P

Date Prep: 11.11.19

LCSD Sample Id: 7690014-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	261	104	261	104	90-110	0	20	mg/kg	11.11.19 10:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3107082

MB Sample Id: 7690015-1-BLK

Matrix: Solid

LCS Sample Id: 7690015-1-BKS

Prep Method: E300P

Date Prep: 11.11.19

LCSD Sample Id: 7690015-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	255	102	254	102	90-110	0	20	mg/kg	11.11.19 13:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3107080

Parent Sample Id: 642448-001

Matrix: Soil

MS Sample Id: 642448-001 S

Prep Method: E300P

Date Prep: 11.11.19

MSD Sample Id: 642448-001 SD

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

Analytical Method: Chloride by EPA 300

Seq Number: 3107080

Parent Sample Id: 642448-002

Matrix: Soil

MS Sample Id: 642448-002 S

Prep Method: E300P

Date Prep: 11.11.19

MSD Sample Id: 642448-002 SD

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

Analytical Method: Chloride by EPA 300

Seq Number: 3107082

Parent Sample Id: 642642-012

Matrix: Soil

MS Sample Id: 642642-012 S

Prep Method: E300P

Date Prep: 11.11.19

MSD Sample Id: 642642-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	62.3	250	324	105	323	104	90-110	0	20	mg/kg	11.11.19 14:18	

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



QC Summary 642642

LT Environmental, Inc.

Muy Wayno 18 Fed 104 H

Analytical Method: Chloride by EPA 300

Seq Number: 3107082

Parent Sample Id: 642646-007

Matrix: Soil

MS Sample Id: 642646-007 S

Prep Method: E300P

Date Prep: 11.11.19

MSD Sample Id: 642646-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	253	251	506	101	509	102	90-110	1	20	mg/kg	11.11.19 15:51	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107112

MB Sample Id: 7690012-1-BLK

Matrix: Solid

LCS Sample Id: 7690012-1-BKS

Prep Method: SW8015P

Date Prep: 11.11.19

LCSD Sample Id: 7690012-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1020	102	1030	103	70-135	1	20	mg/kg	11.11.19 15:22	
Diesel Range Organics (DRO)	<15.0	1000	992	99	1000	100	70-135	1	20	mg/kg	11.11.19 15:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		124		126		70-135	%	11.11.19 15:22
o-Terphenyl	92		103		105		70-135	%	11.11.19 15:22

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107112

Matrix: Solid

MB Sample Id: 7690012-1-BLK

Prep Method: SW8015P

Date Prep: 11.11.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.11.19 15:03	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107112

Parent Sample Id: 642642-001

Matrix: Soil

MS Sample Id: 642642-001 S

Prep Method: SW8015P

Date Prep: 11.11.19

MSD Sample Id: 642642-001 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)	<14.9	996	1160	116	1170	117	70-135	1	20	mg/kg	11.11.19 16:19	
Diesel Range Organics (DRO)	<14.9	996	1010	101	1030	103	70-135	2	20	mg/kg	11.11.19 16:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		124		70-135	%	11.11.19 16:19
o-Terphenyl	102		101		70-135	%	11.11.19 16:19

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

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

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

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



QC Summary 642642

LT Environmental, Inc.

Muy Wayno 18 Fed 104 H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3107244

MB Sample Id: 7690150-1-BLK

Matrix: Solid

LCS Sample Id: 7690150-1-BKS

Prep Method: SW5030B

Date Prep: 11.12.19

LCSD Sample Id: 7690150-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.114	114	0.118	118	70-130	3	35	mg/kg	11.12.19 15:07	
Toluene	<0.00200	0.100	0.104	104	0.109	109	70-130	5	35	mg/kg	11.12.19 15:07	
Ethylbenzene	<0.00200	0.100	0.106	106	0.111	111	70-130	5	35	mg/kg	11.12.19 15:07	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.228	114	70-130	5	35	mg/kg	11.12.19 15:07	
o-Xylene	<0.00200	0.100	0.107	107	0.113	113	70-130	5	35	mg/kg	11.12.19 15:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		113		70-130	%	11.12.19 15:07
4-Bromofluorobenzene	90		101		105		70-130	%	11.12.19 15:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3107244

Parent Sample Id: 642642-001

Matrix: Soil

MS Sample Id: 642642-001 S

Prep Method: SW5030B

Date Prep: 11.12.19

MSD Sample Id: 642642-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.108	109	0.106	105	70-130	2	35	mg/kg	11.12.19 15:48	
Toluene	<0.00199	0.0994	0.0994	100	0.0963	95	70-130	3	35	mg/kg	11.12.19 15:48	
Ethylbenzene	<0.00199	0.0994	0.100	101	0.0965	96	70-130	4	35	mg/kg	11.12.19 15:48	
m,p-Xylenes	<0.00398	0.199	0.205	103	0.196	97	70-130	4	35	mg/kg	11.12.19 15:48	
o-Xylene	<0.00199	0.0994	0.102	103	0.0983	97	70-130	4	35	mg/kg	11.12.19 15:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		115		70-130	%	11.12.19 15:48
4-Bromofluorobenzene	106		106		70-130	%	11.12.19 15:48

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) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 1631 / 245.1 / 7470 / 7471

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
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 ; dmoir@ltenv.com

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

Project Name:	Mus Wagon 18 Fed 104H	Turn Around	
Project Number:	2RP-5404	Route	☒
P.O. Number:		Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Temperature (°C):	2.5	Thermometer ID	T-NM-004		
Received Intact:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	15		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth				Sample Comments
					Number	TPH (EPA	BTEX (EPA	
SS01	S	11/07/14	0915	1.5	1	X	X	
SS02			0920		1	X	X	
SS03			0935		1	X	X	
SS04			0940		1	X	X	
SS05			0950	↓	1	X	X	
PH01			1040	1	1	X	X	
PH01A			1045	2	1	X	X	
PH02			1050	1	1	X	X	
PH02A			1055	2	1	X	X	
PH03			1105	1	1	X	X	
Total 200.7 / 6010 200.8 / 6020. 09CDA 40000 1								
lab, if received by 4:30pm								

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb 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

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>[Signature]</i>	<i>[Signature]</i>	11/8/19 851			



Chain of Custody

Work Order No: 442642

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

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Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
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; dmoir@ltenv.com

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

Project Name:	Muy Wayne 18 Fed 104H	Turn Around	☒
Project Number:	2 RPS-404	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Garrett Green	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	Sample Comments									
PH03A	S	11/07/14	1110	2'	1	X	X	X										
PH04	1		1115	1'	1	X	X	X										
PH04A			1120	2'	1	X	X	X										
PH05			1150	1'	1	X	X	X										
PH05A			1155	2'	1	X	X	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
 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

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
1 <i>[Signature]</i>	<i>[Signature]</i>	11/8/14 8:51	2		
3			4		
5			6		



Inter-Office Shipment

Page 1 of 3

IOS Number **51870**

Date/Time: 11/08/19 13:25

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776942284963

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
642642-001	S	SS01	11/07/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-001	S	SS01	11/07/19 09:15	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-001	S	SS01	11/07/19 09:15	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-002	S	SS02	11/07/19 09:20	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-002	S	SS02	11/07/19 09:20	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-002	S	SS02	11/07/19 09:20	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-003	S	SS03	11/07/19 09:35	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-003	S	SS03	11/07/19 09:35	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-003	S	SS03	11/07/19 09:35	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-004	S	SS04	11/07/19 09:40	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-004	S	SS04	11/07/19 09:40	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-004	S	SS04	11/07/19 09:40	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-005	S	SS05	11/07/19 09:50	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-005	S	SS05	11/07/19 09:50	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-005	S	SS05	11/07/19 09:50	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-006	S	PH01	11/07/19 10:40	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-006	S	PH01	11/07/19 10:40	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-006	S	PH01	11/07/19 10:40	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-007	S	PH01A	11/07/19 10:45	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-007	S	PH01A	11/07/19 10:45	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-007	S	PH01A	11/07/19 10:45	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-008	S	PH02	11/07/19 10:50	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-008	S	PH02	11/07/19 10:50	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-008	S	PH02	11/07/19 10:50	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-009	S	PH02A	11/07/19 10:55	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	



Inter-Office Shipment

Page 2 of 3

IOS Number **51870**

Date/Time: 11/08/19 13:25

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776942284963

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
642642-009	S	PH02A	11/07/19 10:55	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-009	S	PH02A	11/07/19 10:55	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-010	S	PH03	11/07/19 11:05	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-010	S	PH03	11/07/19 11:05	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-010	S	PH03	11/07/19 11:05	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-011	S	PH03A	11/07/19 11:10	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-011	S	PH03A	11/07/19 11:10	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-011	S	PH03A	11/07/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-012	S	PH04	11/07/19 11:15	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-012	S	PH04	11/07/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-012	S	PH04	11/07/19 11:15	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-013	S	PH04A	11/07/19 11:20	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-013	S	PH04A	11/07/19 11:20	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-013	S	PH04A	11/07/19 11:20	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-014	S	PH05	11/07/19 11:50	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-014	S	PH05	11/07/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	
642642-014	S	PH05	11/07/19 11:50	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-015	S	PH05A	11/07/19 11:55	E300_CL	Chloride by EPA 300	11/14/19	05/05/20	JKR	CL	
642642-015	S	PH05A	11/07/19 11:55	SW8021B	BTEX by EPA 8021B	11/14/19	11/21/19	JKR	BZ BZME EBZ XYLENES	
642642-015	S	PH05A	11/07/19 11:55	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/21/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Received By:

Jessica Kramer

Date Relinquished: 11/08/2019

Date Received: 11/09/2019 17:00



Inter-Office Shipment

Page 3 of 3

IOS Number 51870

Date/Time: 11/08/19 13:25

Created by: Elizabeth Mcclellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 776942284963

E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Cooler Temperature: 2.3



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 51870

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 11/08/2019 01:25 PM

Received By: Jessica Kramer

Date Received: 11/09/2019 05:00 PM

Sample Receipt Checklist

Comments

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jessica Kramer

Date: 11/09/2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 11/08/2019 08:51:00 AM

Work Order #: 642642

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.5	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6* Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Subbed to Midland.
#18 Water VOC samples have zero headspace?	N/A	

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/08/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/08/2019