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	NAB1921754897	
District RP	2RP-5553	
Facility ID		
Application ID	pAB1921754701	

Release Notification

Responsible Party

		OGRID 5380					
Contact Name Kyle Littrell			Contact Telephone 432-221-7331				
Contact emai	l Kyle_Lit	trell@xtoenergy.c	om		Incident #	# (assigned by OCD) NAB1921754897	
Contact mail	ing address	522 W. Mermod	, Carlsbad, NM 88	3220			
Latitude 32.343260° Longitude -103.829906°							
			(NAD 83 in dec	cimal deg	grees to 5 decim		
Site Name		ch Unit #034			Site Type	1 roduction went acting now time	
Date Release	Discovered	7/10/2019			API# (if applicable) 30-015-31064		
Unit Letter	Section	Township	Range		Coun	ntv	
P	36	22S	30E		Edd		
Surface Owner: State Federal Private (Name: New Mexico 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	Crude Oil Volume Released (bbls) 2.32			Volume Recovered (bbls) 0			
➤ Produced	Water	Volume Released (bbls) 20.87			Volume Recovered (bbls) 0		
	Is the concentration of total dissolved solid in the produced water >10,000 mg/l?		ids (TDS)	☐ Yes ☐ No			
Condensa	te	Volume Released (bbls)			Volume Recovered (bbls)		
☐ Natural G	Natural Gas Volume Released (Mcf)				Volume Recovered (Mcf)		
Other (describe) Volume/Weight Released (provide units)			Volume/Weight Recovered (provide units)				
Cause of Release							
A weld failed on the poly flow line and fluids were released to the power line ROW. The section of line was repaired. Additional third party resources have been retained to assist with remediation.							

Form C-141 Page 2

State of New Mexico Oil Conservation Division

Incident ID	NAB1921754897
District RP	2RP-5553
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Was this a major	If YES, for what reason(s) does the responsible party consider this a major release?			
release as defined by 19.15.29.7(A) NMAC?				
19.13.29.7(A) NWIAC:	N/A			
☐ Yes ☒ No				
If YES, was immediate no	notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?			
	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 rele	ease has been stopped.			
★ The impacted area happened area.	as been secured to protect human health and the environment.			
Released materials ha	ave 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:				
No free fluids remained to	o be recovered.			
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurrent area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.			
	ormation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and			
	required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have			
	gate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In 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 Littr	Title: SH&E Supervisor			
101	Date: 7/19/2019			
Signature:				
email: Kyle Uttrell@xto	oenergy.com Telephone: 432-221-7331			
12.00		_		
OCD Only				
Received by: Am	nalia Bustamante Date: 8/5/2019			

Incident ID	NAB1921754897
District RP	2RP- 5553
Facility ID	
Application ID	pAB pAB1921754701

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?				
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.				
 \infty Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. \infty Field data 				

Characterization Report Checklist: Each of the following items must be included in the report.
<u> </u>
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.

Received by OCD: 9/29/2020 8:41:53 AM State of New Mexico
Page 4 Oil Conservation Division

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Incident ID	NAB1921754897
District RP	2RP- 5553
Facility ID	
Application ID	pAB pAB1921754701

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 Coordinator			
Signature:	Date:9/28/2020			
email: Kyle_Littrell@xtoenergy.com	Telephone:(432)-221-7331			
OCD Only				
Received by:	Date:			

	Page 5 of 13	3
Incident ID	NAB1921754897	
District RP	2RP- 5553	
Facility ID		
Application ID	pAB pAB1921754701	

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 is	tems must be incli	uded 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 must be notified 2 days prior to liner inspection)	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 m	ust be notified 2 days prior to final sampling)				
Description of remediation activities						
I hereby certify that the information given above is true and completed and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and rerhuman health or the environment. In addition, OCD acceptance of a compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the confaccordance with 19.15.29.13 NMAC including notification to the O	n release notification a C-141 report by nediate contamina a C-141 report does tions. The responditions that existe	ons and perform corrective actions for releases which the OCD does not relieve the operator of liability tion that pose a threat to groundwater, surface water, as not relieve the operator of responsibility for sible party acknowledges they must substantially ed prior to the release or their final land use in				
Printed Name: Kyle Littrell	Title:	SH&E Supervisor				
Signature:	Date:9/28/20	20				
email: Kyle_Littrell@xtoenergy.com	Telephone:	432-221-7331				
OCD Only						
Received by:	Date:					
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/o	water, human healt					
Closure Approved by:	Date: _					
Printed Name:	_ Title: _					



LT Environmental, Inc.

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

September 28, 2020

New Mexico Oil Conservation Division District 2 811 South First Street Artesia, New Mexico 88210

RE: Closure Request Addendum
James Ranch Unit #034
Remediation Permit Number 2RP-5553
Incident Number NAB1921754897
Eddy County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following addendum to an original Closure Request submitted March 3, 2020. This Addendum provides an update to the sampling activities at the James Ranch Unit #034 (Site), located in Unit P, Section 36, Township 22 South, Range 30 East, in Eddy County, New Mexico, in response to the denial of the Closure Request by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD requested that XTO collect excavation sidewall samples from a depth of ground surface to 4 feet below ground surface (bgs) to show compliance with the reclamation standards as outlined in 19.15.29.13 (NMAC). In response, XTO completed additional soil sampling activities to support the original Closure Request. Based on the additional sampling activities described below, XTO is requesting no further action (NFA) for Remediation Permit (RP) Number 2RP-5553 (Incident Number NAB1921754897).

BACKGROUND

On March 3, 2020, LTE submitted a Closure Request to the NMOCD for a release that occurred from a failed weld on a poly flow line. Approximately 20.87 barrels (bbls) of produced water and 2.32 bbls of crude oil were released onto the adjacent pasture in a powerline right-of-way (ROW). The flow line was repaired, and the impacted soil was excavated. LTE personnel were at the Site between August 2019 and January 2020 to oversee site assessment and excavation activities.

In addition, during January 2020, in an effort to confirm groundwater depth in the area, a borehole (BH01) was advanced to a depth of 110 feet bgs via truck-mounted sonic drill rig. The borehole was located approximately 0.38 miles northwest of the Site. The location of borehole BH01 is provided on Figure 1. An LTE geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period



District 2 Page 2

without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet. The borehole was properly abandoned with hydrated bentonite chips.

Laboratory analytical results for the excavation soil samples were compliant with the following Closure Criteria applied to the Site:

Benzene: 10 milligrams per kilogram (mg/kg)

Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg

Total petroleum hydrocarbons (TPH): 2,500 mg/kg

TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg

Chloride: 20,000 mg/kg

On April 9, 2020, NMOCD denied closure, via email, for the following reasons:

The OCD has denied the submitted Closure Report C-141 for incident #NAB1921754897 for the following reasons:

- A "Right of Way" is considered Off-Pad and is to be treated like it is in the pasture. Roads, Pasture, and "Right of Ways" are all considered Off-Pad and need to meet the strictest closure criteria for soil standards in the top 4' of soil/material (Equivalent: <50' depth to groundwater).
- All of the floor samples are 10' below ground surface and are compliant with Table 1. The
 problem with the sidewall samples is that they are from surface-10'. The OCD would need
 to see sidewall samples (surface-4') that are under (600 mg/kg Chlorides, 100 mg/kg TPH,
 etc.). The sidewall samples from (4'-10') would need to meet closure criteria (20,000
 mg/kg Chlorides, 2,500 mg/kg TPH).

ADDITIONAL EXCAVATION ACTIVITIES

To address the reason for denial, LTE oversaw additional excavation activities on August 26, 2020 to remove impacted soil to a depth 4 feet bgs in the areas around sidewall samples SW02 through SW05, and SW07, where chloride concentrations initially exceeded the reclamation standards. All other sidewall samples were either addressed during the original excavation (SW06) or met the Closure Criteria and reclamation standard (SW01, SW08, and SW09). To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Upon completion of excavation activities, 5-point composite samples SW10 through SW14 were collected from the sidewalls of the excavation from a depth of ground surface to 4 feet bgs. The excavation extents and confirmation soil sample locations are depicted on Figure 1. Photographic documentation was conducted during excavation activities and photos are included in Attachment 2.



District 2 Page 3

The confirmation soil samples were placed directly into pre-cleaned glass jars, labeled with 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 benzene, toluene, ethylbenzene, and total xylenes (BTEX) following United States Environmental Protection Agency (EPA) Method 8021B; total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The final excavation extent measured approximately 2,573 square feet in area. A total of approximately 864 cubic yards of soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Hobbs, New Mexico.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for sidewall samples SW10 through SW14, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria, and compliant with the reclamation standards applied to the top 4 feet of the subsurface. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 3.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the July 10, 2019, release of produced water and crude oil. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, soil samples collected in the pasture from the top 4 feet of the subsurface were compliant with the reclamation standards. Based on the final excavation soil sample analytical results, no further remediation was required. XTO requests NFA for RP Number 2RP-5553 (Incident Number NAB1921754897).



District 2 Page 4

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

Sincerely,

LT ENVIRONMENTAL, INC.

Fatima Smith Staff Geologist

Ashley L. Ager, M.S., P.G. Senior Geologist

cc: Kyle Littrell, XTO

Ryan Mann, State Land Office

Robert Hamlet, NMOCD Victoria Venegas, NMOCD Cristina Eads, NMOCD

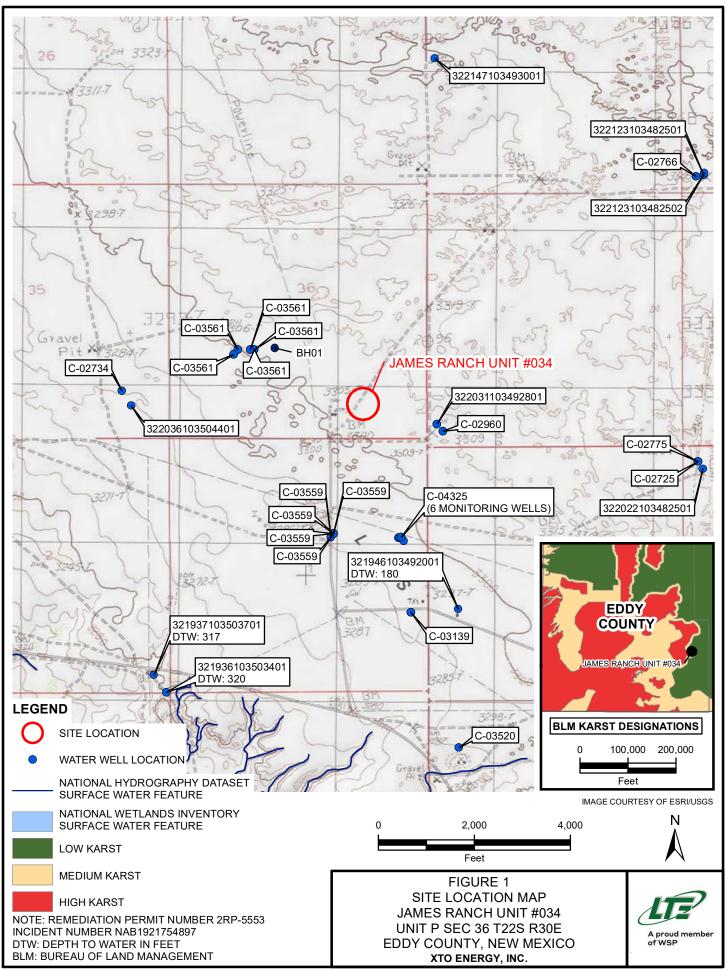
Appendices:

Figure 1 Site Location Map

Figure 2 Excavation Soil Sample Locations
Table 1 Laboratory Analytical Results
Attachment 1 Referenced Well Records

Attachment 2 Photographic Log

Attachment 3 Laboratory Analytical Reports



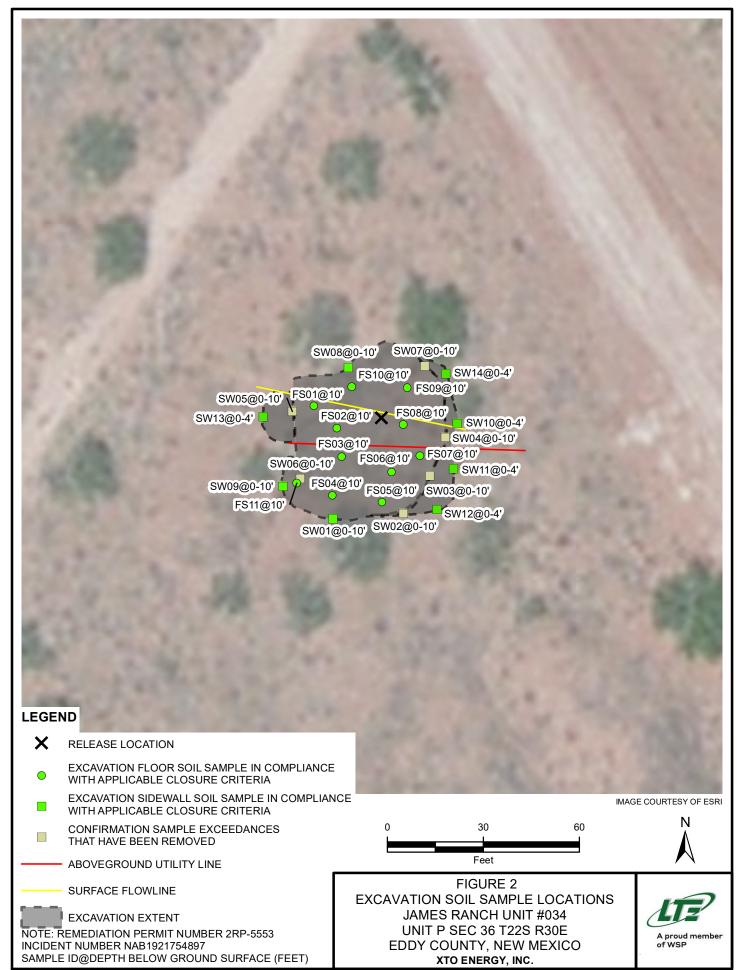


TABLE 1 SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #034 REMEDIATION PERMIT NUMBER 2RP-5553 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 Closur	e Criteria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SS01	0.5	08/15/2019	<0.0199	0.651	0.837	3.94	5.43	1,040	23,900	1,400	24,900	26,300	1,820
SS02	0.5	08/15/2019	<0.00199	0.0112	0.0170	0.0682	0.0964	203	10,100	963	10,300	11,300	4,300
SS03	0.5	08/15/2019	<0.00200	<0.00200	0.00317	0.00462	0.00779	<125	10,700	1,240	10,700	11,900	950
SW01	0 - 10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	537
SW02	0 - 10	12/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	51.7	<50.0	51.7	51.7	3,300
SW03	0 - 10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	3,150
SW04	0 - 10	12/17/2019	<0.00200	<0.00200	<0.00200	0.00248	0.00248	<50.2	544	59.0	544	603	2,420
SW05	0 - 10	12/17/2019	<0.00198	<0.00198	<0.00198	0.00519	0.00519	<50.0	<50.0	<50.0	<50.0	<50.0	4,230
SW06	0 - 10	12/17/2019	<0.00463	<0.0185	0.0527	0.191	0.243	93.0	3,450	345	3,540	3,890	4,590
SW07	0 - 10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,560
SW08	0 - 10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	525
SW09	0 - 10	01/27/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	136
SW10	0 - 4	08/26/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	295
SW11	0 - 4	08/26/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	152
SW12	0 - 4	08/26/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	85.2
SW13	0 - 4	08/26/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	54.3
SW14	0 - 4	08/26/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	302
FS01	10	12/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	2,660
FS02	10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	6,240
FS03	10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	1,260
FS04	10	12/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	89.7
FS05	10	12/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	207
FS06	10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	382
FS07	10	12/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	123



TABLE 1 SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #034 REMEDIATION PERMIT NUMBER 2RP-5553 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 Closur	e Criteria	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
FS08	10	12/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	453
FS09	10	12/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	727
FS10	10	12/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	739
FS11	10	01/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	137

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

ORO - oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons
TEXT - indicates soil that was removed

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



Person	Prental, Inc.		Ca	508 We rlsbad,	ironmenta st Stevens New Mexic Engineering	Street co 88220			Identifier: BHOI Project Name: JRU 29	Date: 1/18 - 1/21/20 RP Number: 2RP - 3307, 2RP-372 2RP - 4040, 2RP-382
at/Long		LITHO	LOGIC	C / SOI	L SAMP				Logged By: FS, WM	Method: SODIC
Comment	s:	11	_				OKIDES, P	ID.	Hole Diameter: 4 11	Total Depth: 110
		eld :		ning	s just	lithe	logy 1	e mar Ks	(borehole on po	d)
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Lithology/l	Remarks
00			Ν		1]	11	CCHE	0-0.5	s' caliche tan	- off white, fill.
٥			2 2		6 -	5'	SP-SM	5-12	5' reddish bru Poorly gran fine, soft, 5' CALICHE, few suba dry, trace Odor, no; stringer, silts brun, poorly	on, SAND, dry, ded, fine-very no odor, no stain tan - off white, ngular gravel, fine sand, no stain y sand, reddish graded, dry
۵			2		8	12 5'	SP-SM	15-1 19-	stringer, silt brwn, poorly 23' silty SAND dry, por few tan-e angular no odor. 8' trace cal 23' caliche a 58' SILTSTO consolia brwn, 2n inclusions	y sand, reddish graded, dry), reddish-bam, inly graded, fine, grain, if white sub- scavel, nostan, icho gravel gravel absent NE, moderately dated, reddish im caliche
0				7	18	23'	ML-S		White sub-	enshlar grevel, no

U Environ	Parisi inc		5	08 Wes	ronment st Stevens	Street			Identifier: BHOI	Date: 1/18 - 1/21/20
2	56		Car	isbad, I	New Mexic Engineering	co 88220			Project Name: JRU 29	RP Number: 258-3702, 258-5720
		LITHO	LOGIC	/501	L SAMPI	LING LO	OG		Logged By: FS,BB,WM	ZRP-4040, 2KP-3082.
at/Long					Field Scree			PID.	Hole Diameter: 61	Total Depth:
• -			4.7							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Lithology/Ren	narks
D	71		2		26] 27] 28] 29] 30] 31]	26'	ML-S	301	caliche gravel consolidated some caliche	absent, well
				7	32	37'		37 5	moderate corsis well conso tan-oft which stringer.	lidation
Μ				7	38 39 40 41	41'				
M					42 43 44 44	41.		1/2	47.5 some co	
D				N	45 46	45'			47.5' well condark purple	
٥.				7	47 48	47'		47.5	(0.5-1 mm	
)				N	49 I 50	501				

LT Environm	P nental, Inc.		Car	08 We Isbad,	ironmenta st Stevens New Mexic Engineering	Street to 88220		Identifier BHOI Project Name URU29	Date 1/18 - 1/21/20 RP Number, 2RP-3302, 2RP-3726, 2RP-4040, 2RP-3082,
		LITHO	LOGIC	/501	L SAMPI	ING LO	oĠ	Logged By: FS, BB,	WM Method: SODIE
Lat/Long					Field Screen	ning: CHLO	ORIDES, PID.	Hole Diameter:	Total Depth: 1101
Comments	s:								
Moisture	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)		Soil/Rock Type	Litholog	//Remarks
D			7		51 I 52 I 53 I 54	52.		55-61' some o	onite Stringer, - grey, well ated open pore space onn), abundant
D			7		55 <u> </u>	55'	100	inclus w/few	dolomite ions (1-2 mm) dark purple
00			22		58	60,		ne stab	NE, clry, reddish plasticity, well consolidated silty clolomite is (1-2 mm), sodor. psum inclusions mall crystalls
D			7		65 66	65'			
D			N		67	671			
D			7		69	69'			
D			2		70 71 72 73	714			
			N		74	741			

Attend	LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation LITHOLOGIC / SOIL SAMPLING LOG								Identifier: BHO1 Project Name: UR U 29		Date: 1/18 - 1/21/20 RP Number: ZRI-5302, ZRI-3726, 2RI-4040,7KI-3042.
		LITHO	LOGIC	/SOI	L SAMPI	LING LO	OG	D	Logged By: FS, BB Hole Diameter:		Method Sonic Total Depth
Lat/Long					Field Scree	ning: CHL	ORIDES, PI	D.	Hole Diameter:		110'
Comment	ts:										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type		Litho	ology/Ren	narks
D			7		77	77'	CL-S		(0.5-1 m	m)	te inclusions
D			7		78 - 79 - 80	791		81	few fine qypsum of abunda inclusion	ine ant c	dolomite
D			2		81 -	81'					(1-2 mm) er, clolomite, y - grey
D			2		83 _	83'			Ligh	+ gre	y-grey
D			2		85 <u>-</u> 86 <u>-</u> 87	85'					
D			2		88 _	881					
			N		90	90'					
D			7		91 7	91'					
D			7		93 94 95	941					
D			7		96	96'					
>			N		98 -	98'					
					100						

LTE Environmental, Inc.	Car	LT Environment 508 West Stevens Isbad, New Mexi liance · Engineerin	s Street co 8822		Identifier BHO I Project Name: JRU 29	Date: 1/18 - 1/21/20 RP Number: 289-302, 781-3726 268-4040, 789-3082
at/Long	LITHOLOGIC	Field Scree		OG ORIDES, PID.	Logged By: FS, BB, W	and the second second
omments:						
Moisture Content Chloride (ppm)	Vapor (ppm) Staining	# Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology	/Remarks
M M M M	2 2 2 2	101] 102] 103] 104] 105] 106] 107] 108] 109] 110] 111] 112] 113] 114] 115]	104'	CL-5 102'-	reddish be non cohesi w/ some s inclusions, no stringer, light grey	E, moret rwn, no plasticity ve, poorly consolidate, ilty dolomite grey - light grey, dor, silty clolomite, - grey
		117 - 118 - 119 - 120 - 121 - 122 - 123 - 124			÷	



PHOTOGRAPHIC LOG



Photograph 1: View south of excavation sidewall.



Photograph 2: View east of excavation sidewall.

James Ranch Unit #034 32.343260, -103.829906

Photographs Taken: November 22, 2016





PHOTOGRAPHIC LOG



Photograph 1: View East of Site following backfill procedures.



Photograph 2: View East of Site following backfill procedures.

James Ranch Unit #034 32.343260, -103.829906

Photographs Taken: September 24, 2020





Analytical Report 650395

for

LT Environmental, Inc.

Project Manager: Dan Moir JRU 34 012919156 28-JAN-20

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)



28-JAN-20

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

Reference: XENCO Report No(s): 650395

JRU 34

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) 650395. 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. 650395 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Vermer

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 650395

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW09	S	01-27-20 11:32	0 - 10 ft	650395-001
FS11	S	01-27-20 11:55	10 ft	650395-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 34

 Project ID:
 012919156
 Report Date:
 28-JAN-20

 Work Order Number(s):
 650395
 Date Received:
 01/27/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114645 BTEX by EPA 8021B

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



Certificate of Analysis Summary 650395

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Date Received in Lab: Mon Jan-27-20 01:50 pm

Report Date: 28-JAN-20 **Project Manager:** Jessica Kramer

Project Id: 012919156 Contact: Dan Moir

Project Location:

	Lab Id:	650395-001	650395-002		
Analysis Requested	Field Id:	SW09	FS11		
Anaiysis Kequesieu	Depth:	0-10 ft	10- ft		
	Matrix:	SOIL	SOIL		
	Sampled:	Jan-27-20 11:32	Jan-27-20 11:55		
BTEX by EPA 8021B	Extracted:	Jan-27-20 16:00	Jan-27-20 16:00		
	Analyzed:	Jan-27-20 18:39	Jan-27-20 19:00		
	Units/RL:	mg/kg RL	mg/kg RL		
Benzene		< 0.00201 0.00201	<0.00200 0.00200		
Toluene		< 0.00201 0.00201	<0.00200 0.00200		
Ethylbenzene		< 0.00201 0.00201	<0.00200 0.00200		
m,p-Xylenes		< 0.00402 0.00402	<0.00400 0.00400		
o-Xylene		< 0.00201 0.00201	<0.00200 0.00200		
Total Xylenes		< 0.00201 0.00201	<0.00200 0.00200		
Total BTEX		< 0.00201 0.00201	<0.00200 0.00200		
Chloride by EPA 300	Extracted:	Jan-27-20 18:10	Jan-27-20 18:10		
	Analyzed:	Jan-28-20 04:47	Jan-28-20 04:56		
	Units/RL:	mg/kg RL	mg/kg RL		
Chloride		136 9.94	137 9.98		
TPH by SW8015 Mod	Extracted:	Jan-27-20 16:00	Jan-27-20 16:00		
	Analyzed:	Jan-27-20 17:28	Jan-27-20 17:49		
	Units/RL:	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)	'	<49.9 49.9	<50.1 50.1		
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1		
Motor Oil Range Hydrocarbons (MRO)	ange Hydrocarbons (MRO) <49.9 49.9		<50.1 50.1		
Total GRO-DRO		<49.9 49.9	<50.1 50.1		
Total TPH	al TPH <4		<50.1 50.1		

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



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SW09** Matrix:

Cas Number

16887-00-6

Date Received:01.27.20 13.50

Lab Sample Id: 650395-001

Date Collected: 01.27.20 11.32

RL

9.94

Sample Depth: 0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analysis Date

01.28.20 04.47

Tech:

Parameter

Chloride

Tech:

MAB

% Moisture:

Analyst: MAB

Seq Number: 3114643

Date Prep:

136

Result

01.27.20 18.10

Basis:

Units

mg/kg

Wet Weight

Flag

Dil

1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

DTH

% Moisture:

DTH Analyst:

01.27.20 16.00 Date Prep:

Basis:

Wet Weight

Seq Number: 3114633

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	01.27.20 17.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	01.27.20 17.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	01.27.20 17.28	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	01.27.20 17.28	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	01.27.20 17.28	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	104	%	70-135	01.27.20 17.28		
o-Terphenyl		84-15-1	102	%	70-135	01.27.20 17.28		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW09 Matrix: Soil Date Received:01.27.20 13.50

Lab Sample Id: 650395-001 Date Collected: 01.27.20 11.32 Sample Depth: 0 - 10 ft

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

% Moisture:

Analyst: MAB Date Prep: 01.27.20 16.00 Basis: Wet Weight

Seq Number: 3114645

MAB

Tech:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	01.27.20 18.39	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	01.27.20 18.39	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	01.27.20 18.39		
4-Bromofluorobenzene		460-00-4	98	%	70-130	01.27.20 18.39		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

01.27.20 18.10

Sample Id: **FS11** Matrix:

Date Received:01.27.20 13.50

Lab Sample Id: 650395-002

Date Collected: 01.27.20 11.55

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

Basis:

Wet Weight

Seq Number: 3114643

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 137 01.28.20 04.56 9.98 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

DTH Analyst:

01.27.20 16.00 Date Prep:

Basis: Wet Weight

Seq Number: 3114633

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	01.27.20 17.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	01.27.20 17.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	01.27.20 17.49	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	01.27.20 17.49	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	01.27.20 17.49	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	109	%	70-135	01.27.20 17.49		
o-Terphenyl		84-15-1	100	%	70-135	01.27.20 17.49		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS11 Matrix: Soil Date Received:01.27.20 13.50

Lab Sample Id: 650395-002 Date Collected: 01.27.20 11.55 Sample Depth: 10 ft

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

% Moisture:

Analyst: MAB Date Prep: 01.27.20 16.00 Basis: Wet Weight

Seq Number: 3114645

MAB

Tech:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	01.27.20 19.00	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	01.27.20 19.00	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	01.27.20 19.00		
4-Bromofluorobenzene		460-00-4	100	%	70-130	01.27.20 19.00		



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

^{**} Surrogate recovered outside laboratory control limit.

Flag

E300P

E300P

SW8015P

MS = Matrix Spike

B = Spike Added

01.27.20

Analysis

Prep Method:

Date Prep:



Seq Number:

QC Summary 650395

LT Environmental, Inc.

JRU 34

Analytical Method: Chloride by EPA 300

3114643 Matrix: Solid

Spike

LCS Sample Id: 7695321-1-BKS MB Sample Id: 7695321-1-BLK

MR

LCSD Sample Id: 7695321-1-BSD LCS LCS Limits %RPD RPD Limit Units LCSD LCSD

Parameter Result Amount Result %Rec Date %Rec Result

01.28.20 03:07 Chloride <10.0 250 256 102 257 103 90-110 0 20 mg/kg

Analytical Method: Chloride by EPA 300

E300P Prep Method: Seq Number: 3114643 Matrix: Soil 01.27.20 Date Prep:

Parent Sample Id: 650328-001 MS Sample Id: 650328-001 S MSD Sample Id: 650328-001 SD

Spike MS MS %RPD RPD Limit Units Parent **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result Amount %Rec Result %Rec

Chloride 151 202 362 104 361 104 90-110 0 20 mg/kg 01.28.20 08:01

Analytical Method: Chloride by EPA 300

Prep Method: 3114643 Matrix: Soil 01.27.20 Seq Number: Date Prep:

MSD Sample Id: 650336-003 SD MS Sample Id: 650336-003 S Parent Sample Id: 650336-003

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits **Analysis** Flag **Parameter** Result Date Result %Rec Amount Result %Rec Chloride 1.90 202 201 99 199 99 90-110 20 01.28.20 10:59 mg/kg

Analytical Method: TPH by SW8015 Mod

SW8015P Prep Method: 3114633 Matrix: Solid Seq Number: Date Prep: 01.27.20

7695260-1-BKS LCSD Sample Id: 7695260-1-BSD LCS Sample Id: MB Sample Id: 7695260-1-BLK

%RPD RPD Limit Units MB Spike LCS LCS Limits Analysis LCSD LCSD Flag **Parameter** Result %Rec Date Result Amount %Rec Result Gasoline Range Hydrocarbons (GRO) 1290 129 70-135 2 01.27.20 12:51 < 50.0 1000 1270 127 35 mg/kg 01.27.20 12:51 70-135 2 35 Diesel Range Organics (DRO) 1000 1230 123 1250 125 <11.5 mg/kg

LCS MB MB LCS LCSD LCSD Limits Units Analysis **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 1-Chlorooctane 102 122 122 70-135 % 01.27.20 12:51 01.27.20 12:51 o-Terphenyl 100 111 113 70-135 %

Analytical Method: TPH by SW8015 Mod

Seg Number: 3114633 Matrix: Solid Date Prep: 01.27.20

MB Sample Id: 7695260-1-BLK

MB Units Analysis Flag **Parameter** Result Date

01.27.20 12:31 Motor Oil Range Hydrocarbons (MRO) < 50.0 mg/kg

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result = MS/LCS Result

D = MSD/LCSD % Rec = MSD/LCSD Result

Prep Method:



Seq Number:

Parent Sample Id:

MB Sample Id:

QC Summary 650395

LT Environmental, Inc.

JRU 34

Analytical Method: TPH by SW8015 Mod

650328-001

3114633 Matrix: Soil

MS Sample Id: 650328-001 S

Prep Method: SW8015P

Date Prep: 01.27.20

MSD Sample Id: 650328-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	< 50.3	1010	1180	117	1090	109	70-135	8	35	mg/kg	01.27.20 14:06	
Diesel Range Organics (DRO)	< 50.3	1010	1190	118	1070	107	70-135	11	35	mg/kg	01.27.20 14:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	132		121		70-135	%	01.27.20 14:06
o-Terphenyl	121		115		70-135	%	01.27.20 14:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3114645

3114645 Matrix: Solid 7695326-1-BLK LCS Sample Id: 76953 Prep Method: Date Prep:

SW5030B

Flag

Flag

Matrix: Solid Date Prep: 01.27.20 LCS Sample Id: 7695326-1-BKS LCSD Sample Id: 7695326-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
Benzene	< 0.00200	0.100	0.0984	98	0.0979	98	70-130	1	35	mg/kg	01.27.20 16:57
Toluene	< 0.00200	0.100	0.0945	95	0.0933	93	70-130	1	35	mg/kg	01.27.20 16:57
Ethylbenzene	< 0.00200	0.100	0.0913	91	0.0896	90	71-129	2	35	mg/kg	01.27.20 16:57
m,p-Xylenes	< 0.00400	0.200	0.188	94	0.184	92	70-135	2	35	mg/kg	01.27.20 16:57
o-Xylene	< 0.00200	0.100	0.0945	95	0.0923	92	71-133	2	35	mg/kg	01.27.20 16:57
_	MB	MB	L	CS I	CS	LCSI	D LCS	D I	imits	Units	Analysis

Surrogate	%Rec	Flag	%Rec	Flag	%Rec	Flag	Limits	Cints	Date
1,4-Difluorobenzene	104		104		104		70-130	%	01.27.20 16:57
4-Bromofluorobenzene	97		97		98		70-130	%	01.27.20 16:57

Analytical Method: BTEX by EPA 8021B

 Seq Number:
 3114645

 Parent Sample Id:
 650395-001

Matrix: Soil
MS Sample Id: 650395-001 S

Prep Method: S
Date Prep: 0

SW5030B 01.27.20

MSD Sample Id: 650395-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
Benzene	< 0.00200	0.100	0.0969	97	0.0859	86	70-130	12	35	mg/kg	01.27.20 17:38
Toluene	< 0.00200	0.100	0.0933	93	0.0836	84	70-130	11	35	mg/kg	01.27.20 17:38
Ethylbenzene	< 0.00200	0.100	0.0898	90	0.0808	81	71-129	11	35	mg/kg	01.27.20 17:38
m,p-Xylenes	< 0.00400	0.200	0.185	93	0.166	83	70-135	11	35	mg/kg	01.27.20 17:38
o-Xylene	< 0.00200	0.100	0.0916	92	0.0827	83	71-133	10	35	mg/kg	01.27.20 17:38

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	01.27.20 17:38
4-Bromofluorobenzene	95		98		70-130	%	01.27.20 17:38

MS/MSD Percent Recovery Relative Percent Difference LCS/LCSD Recovery Log Difference
$$\begin{split} [D] &= 100*(C\text{-A}) \, / \, B \\ RPD &= 200* \mid (C\text{-E}) \, / \, (C\text{+E}) \mid \\ [D] &= 100*(C) \, / \, [B] \end{split}$$

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result C = MS/LCS Result

E = MS/LCS ResultE = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec



Project Manager:

Dan Moir

Company Name: Address:

City, State ZIP:

Midland, TX 79705 3300 North A Street LT Environmental, Inc.,

Chain of Custody

Work Order No: 450395

		Permian Office				0	חח	
Cit. State 7ID.	Address:	Company Name: XTO Energy, Inc.	Bill to: (if different) Kyle Littrell		Tampa, FL (813) 620-2000	Hobbs, NM (575) 392-75	Midland, TX (432) 704-5	Houston, TX (281) 240-42
Other State VID. Corlehad NIM 88220	3104 E Greene St	XTO Energy, Inc.	Kyle Littrell	Atlanta, GA (770) 449-8800	Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900	Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Reporting:Level H PSI/USH IRRE	State of Project:	Program: UST/PST PRP Brownfields RRC		WW	61) 689-6701	355-0900	794-1296	509-3334
evel III	5	PRPL B	Vork Orc	w.xenco.				
PSI/USH	1	rownfields	Work Order Comments	www.xenco.com Page 1				
7.4	1	RRE	ents	ge				

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Superfund

City, State ZIP: N	Midland, IX /9/05			City, State Lin.		maira.	Hony	200					Deliverables: EDD			ADaPT		Other:
Phone:	(432) 236-3849		Email: IS	Email: ISMITH@ITEM.COM, OHIOH@ITEM.COM	JOILL, O		SILCITY.										5	Work Order Notes
Project Name:	JRU 34		Turn	Turn Around					A	ALYS	ANALYSIS RE	QUEST						TOTAL CHARGE STATE
Project Number:	012919156	6	Routine:		Г		-							t				
PO#	2RP-5553	S	Rush: 2	Rush: 24 hrs														
Sampler's Name:	Fatim	Fatima Smith	Due Date:) e														
SAMPLE RECEIPT	PT Temp Blank:	slank: Yes No	Wet Ice:	Yes No	S													
Temperature (°C):	- 6	(Thermometer ID		iner)												
Received Intact:	(Yes) No		TNINOC	9														
Cooler Custody Seals:	0	N/A Correction Factor:	Factor:	5.0-								1		Ī			TAT st	TAT starts the day received by the
Sample Custody Seals:	Yes (No)	N/A Total Containers:	iners:	හ										Ī			9	D, II ICOCINCA DJop
Sample Identification	fication	Matrix Sampled	Time Sampled	Depth	Number TPH (EI	BTEX (Chlorid										S	Sample Comments
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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 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. 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 order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions notice.	document and relinquish	ment of samples co	nstitutes a valid pur not assume any res	chase order fron ponsibility for ar	n client c ly losses submitte	ompany or expe	to Xeno	o, its affi curred by	liates an the clie zed. Th	d subco nt if sucl	ntractor 1 losses 5 will be	s. It ass are due enforce	s. It assigns standard terms and conditions are due to circumstances beyond the control enforced unless previously negotiated.	is and co eyond the negotia	onditions ne contro ted.	_		
Reinquished by: (Signature)	: (Signature)	Received	Received by: (Signature)	e)	D	Date/Time	me	70	Relinquished by: (Si	ished	by: (Si	gnature)		Received by: (Signature)	by: (S	ignatui	e)	Date/Time
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Released to Imaging: 3/9/2021 2:06:39 PM

ADaPT PST/UST

TR中 Other:

LeveHV

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 01.27.2020 01.50.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 650395

Analyst:

Temperature Measuring device used: T-NM-007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		2.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contain	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

' Must be completed for	after-hours deliver	y of samples	prior to placii	ng in the refrigerator

Checklist completed by:	Cull	Date: <u>0</u> 1.27.2020	
	Elizabeth McClellan		

PH Device/Lot#:

Checklist reviewed by:

Jessica Kramer

Date: 01.28.2020

Analytical Report 634284

for

LT Environmental, Inc.

Project Manager: Dan Moir JRU 34

21-AUG-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

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



21-AUG-19

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

Reference: XENCO Report No(s): 634284

JRU 34

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) 634284. 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. 634284 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Vermer

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 634284

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	08-15-19 11:50	.5 ft	634284-001
SS02	S	08-15-19 12:00	.5 ft	634284-002
SS03	S	08-15-19 12:05	.5 ft	634284-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 34

Project ID: Report Date: 21-AUG-19
Work Order Number(s): 634284
Date Received: 08/15/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099158 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data

confirmed by re-analysis.

Samples affected are: 634291-001 S,634291-001 SD,634284-002,634284-003,634284-001. Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Dan Moir

Certificate of Analysis Summary 634284

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34 **Project Id:**

Date Received in Lab: Thu Aug-15-19 04:45 pm

Report Date: 21-AUG-19 Project Manager: Jessica Kramer

Project Location:

Contact:

				l			1		
	Lab Id:	634284-0	001	634284-	002	634284-0	003		
Analysis Requested	Field Id:	SS01		SS02		SS03			
Anaiysis Requesieu	Depth:	.5- ft		.5- ft		.5- ft			
	Matrix:	SOIL	,	SOIL	SOIL				
	Sampled:	Aug-15-19	Aug-15-19 11:50		12:00	Aug-15-19	12:05		
BTEX by EPA 8021B	Extracted:	Aug-17-19	12:30	Aug-17-19	12:30	Aug-17-19	12:30		
SUB: T104704400-18-16	Analyzed:	Aug-20-19	05:53	Aug-20-19	06:13	Aug-20-19	06:33		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
enzene		< 0.0199	0.0199	< 0.00199	0.00199	< 0.00200	0.00200		
Toluene		0.651	0.0199	0.0112	0.00199	< 0.00200	0.00200		
Ethylbenzene		0.837	0.0199	0.0170	0.00199	0.00317	0.00200		
n,p-Xylenes		2.13	0.0398	0.0212	0.00398	< 0.00399	0.00399		
o-Xylene		1.81	0.0199	0.0470	0.00199	0.00462	0.00200		
Total Xylenes		3.94	0.0199	0.0682	0.00199	0.00462	0.00200		
Total BTEX		5.43	0.0199	0.0964	0.00199	0.00779	0.00200		
Chloride by EPA 300	Extracted:	Aug-19-19 11:50		Aug-19-19 11:50		Aug-19-19	11:50		
SUB: T104704400-18-16	Analyzed:	Aug-20-19	11:26	Aug-20-19	11:33	Aug-20-19	11:39		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		1820	24.8	4300	25.1	950	4.95		
TPH by SW8015 Mod	Extracted:	Aug-19-19	13:00	Aug-19-19	13:00	Aug-19-19	13:00		
SUB: T104704400-18-16	Analyzed:	Aug-20-19	07:27	Aug-20-19	07:46	Aug-20-19	08:06		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		1040	125	203	125	<125	125		
Diesel Range Organics (DRO)		23900	125	10100	125	10700	125		
Motor Oil Range Hydrocarbons (MRO)	otor Oil Range Hydrocarbons (MRO) 1400		125	963	125	1240	125		
Total TPH	otal TPH 26300		125	11300	125	11900	125		
Total GRO-DRO		24900	125	10300	125	10700	125		

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

Version: 1.%

Jessica Kramer Project Assistant

Jessica Vramer



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id:

SS01

Matrix:

Date Received:08.15.19 16.45

Lab Sample Id: 634284-001

Date Collected: 08.15.19 11.50

Sample Depth: .5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: CHE

Analyst:

CHE

Date Prep: 08.19.19 11.50

Basis:

Wet Weight

Seq Number: 3099041

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1820	24.8	mg/kg	08.20.19 11.26		5

Analytical Method: TPH by SW8015 Mod

Tech:

DVM

ARM Analyst:

Seq Number: 3099047

Date Prep:

08.19.19 13.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Cas Number	Result	\mathbf{RL}		Units	Analysis Date	Flag	Dil
PHC610	1040	125		mg/kg	08.20.19 07.27		5
C10C28DRO	23900	125		mg/kg	08.20.19 07.27		5
PHCG2835	1400	125		mg/kg	08.20.19 07.27		5
PHC635	26300	125		mg/kg	08.20.19 07.27		5
PHC628	24900	125		mg/kg	08.20.19 07.27		5
	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
	111-85-3	110	%	70-135	08.20.19 07.27		
	84-15-1	89	%	70-135	08.20.19 07.27		
	PHC610 C10C28DRO PHCG2835 PHC635	PHC610 1040 C10C28DRO 23900 PHCG2835 1400 PHC635 26300 PHC628 24900 Cas Number 111-85-3	PHC610 1040 125 C10C28DRO 23900 125 PHCG2835 1400 125 PHC635 26300 125 PHC628 24900 125 Cas Number Recovery 111-85-3 110	PHC610 1040 125 C10C28DRO 23900 125 PHCG2835 1400 125 PHC635 26300 125 PHC628 24900 125 Cas Number Recovery Units 111-85-3 110 %	PHC610 1040 125 mg/kg C10C28DRO 23900 125 mg/kg PHCG2835 1400 125 mg/kg PHC635 26300 125 mg/kg PHC628 24900 125 mg/kg Cas Number % Limits 111-85-3 110 % 70-135	PHC610 1040 125 mg/kg 08.20.19 07.27 C10C28DRO 23900 125 mg/kg 08.20.19 07.27 PHCG2835 1400 125 mg/kg 08.20.19 07.27 PHC635 26300 125 mg/kg 08.20.19 07.27 PHC628 24900 125 mg/kg 08.20.19 07.27 PHC628 125 mg/kg 08.20.19 07.27 Cas Number Recovery Units Limits Analysis Date 111-85-3 110 % 70-135 08.20.19 07.27	PHC610 1040 125 mg/kg 08.20.19 07.27 C10C28DRO 23900 125 mg/kg 08.20.19 07.27 PHCG2835 1400 125 mg/kg 08.20.19 07.27 PHC635 26300 125 mg/kg 08.20.19 07.27 PHC628 24900 125 mg/kg 08.20.19 07.27 PHC628 125 mg/kg 08.20.19 07.27 Cas Number Recovery Units Limits Analysis Date Flag



KTL

Tech:

Certificate of Analytical Results 634284

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SS01 Matrix: Soil Date Received:08.15.19 16.45

Lab Sample Id: 634284-001 Date Collected: 08.15.19 11.50 Sample Depth: .5 ft

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

% Moisture:

Analyst: AMB Date Prep: 08.17.19 12.30 Basis: Wet Weight

Seq Number: 3099158 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.0199	0.0199		mg/kg	08.20.19 05.53	U	10
Toluene	108-88-3	0.651	0.0199		mg/kg	08.20.19 05.53		10
Ethylbenzene	100-41-4	0.837	0.0199		mg/kg	08.20.19 05.53		10
m,p-Xylenes	179601-23-1	2.13	0.0398		mg/kg	08.20.19 05.53		10
o-Xylene	95-47-6	1.81	0.0199		mg/kg	08.20.19 05.53		10
Total Xylenes	1330-20-7	3.94	0.0199		mg/kg	08.20.19 05.53		10
Total BTEX		5.43	0.0199		mg/kg	08.20.19 05.53		10
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	149	%	70-130	08.20.19 05.53	**	
1,4-Difluorobenzene		540-36-3	114	%	70-130	08.20.19 05.53		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SS02

Matrix: Soil

Date Received:08.15.19 16.45

Lab Sample Id: 634284-002

Date Collected: 08.15.19 12.00

Sample Depth: .5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: CHE

Analyst:

CHE

Date Prep: 08.19.19 11.50

Basis:

Wet Weight

Seq Number: 3099041

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4300	25.1	mg/kg	08.20.19 11.33		5

Analytical Method: TPH by SW8015 Mod

Tech:

DVM

Analyst: ARM

Seq Number: 3099047

Date Prep: 08.19.19 13.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	203	125		mg/kg	08.20.19 07.46		5
Diesel Range Organics (DRO)	C10C28DRO	10100	125		mg/kg	08.20.19 07.46		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	963	125		mg/kg	08.20.19 07.46		5
Total TPH	PHC635	11300	125		mg/kg	08.20.19 07.46		5
Total GRO-DRO	PHC628	10300	125		mg/kg	08.20.19 07.46		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	122	%	70-135	08.20.19 07.46		
o-Terphenyl		84-15-1	123	%	70-135	08.20.19 07.46		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SS02 Matrix: Soil Date Received:08.15.19 16.45

Lab Sample Id: 634284-002 Date Collected: 08.15.19 12.00 Sample Depth: .5 ft

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

Tech: KTL % Moisture:

Analyst: AMB Date Prep: 08.17.19 12.30 Basis: Wet Weight

Seq Number: 3099158 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.20.19 06.13	U	1
Toluene	108-88-3	0.0112	0.00199		mg/kg	08.20.19 06.13		1
Ethylbenzene	100-41-4	0.0170	0.00199		mg/kg	08.20.19 06.13		1
m,p-Xylenes	179601-23-1	0.0212	0.00398		mg/kg	08.20.19 06.13		1
o-Xylene	95-47-6	0.0470	0.00199		mg/kg	08.20.19 06.13		1
Total Xylenes	1330-20-7	0.0682	0.00199		mg/kg	08.20.19 06.13		1
Total BTEX		0.0964	0.00199		mg/kg	08.20.19 06.13		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	157	%	70-130	08.20.19 06.13	**	
1,4-Difluorobenzene		540-36-3	102	%	70-130	08.20.19 06.13		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SS03** Matrix:

Lab Sample Id: 634284-003

Date Collected: 08.15.19 12.05

Sample Depth: .5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Date Received:08.15.19 16.45

Tech:

Analyst:

CHE CHE

% Moisture:

Basis:

Wet Weight

Seq Number: 3099041

Date Prep:

08.19.19 11.50

SUB: T104704400-18-16

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 08.20.19 11.39 950 4.95 mg/kg 1

Analytical Method: TPH by SW8015 Mod

DVM Tech:

ARM Analyst: Seq Number: 3099047

Date Prep:

08.19.19 13.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

SUB: T104704400-18-16

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<125	125		mg/kg	08.20.19 08.06	U	5
Diesel Range Organics (DRO)	C10C28DRO	10700	125		mg/kg	08.20.19 08.06		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1240	125		mg/kg	08.20.19 08.06		5
Total TPH	PHC635	11900	125		mg/kg	08.20.19 08.06		5
Total GRO-DRO	PHC628	10700	125		mg/kg	08.20.19 08.06		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	100	%	70-135	08.20.19 08.06		
o-Terphenyl		84-15-1	121	%	70-135	08.20.19 08.06		



KTL

Tech:

Certificate of Analytical Results 634284

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SS03 Matrix: Soil Date Received:08.15.19 16.45

Lab Sample Id: 634284-003 Date Collected: 08.15.19 12.05 Sample Depth: .5 ft

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

% Moisture:

Analyst: AMB Date Prep: 08.17.19 12.30 Basis: Wet Weight

Seq Number: 3099158 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.20.19 06.33	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.20.19 06.33	U	1
Ethylbenzene	100-41-4	0.00317	0.00200		mg/kg	08.20.19 06.33		1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.20.19 06.33	U	1
o-Xylene	95-47-6	0.00462	0.00200		mg/kg	08.20.19 06.33		1
Total Xylenes	1330-20-7	0.00462	0.00200		mg/kg	08.20.19 06.33		1
Total BTEX		0.00779	0.00200		mg/kg	08.20.19 06.33		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	133	%	70-130	08.20.19 06.33	**	
1,4-Difluorobenzene		540-36-3	98	%	70-130	08.20.19 06.33		



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

^{**} Surrogate recovered outside laboratory control limit.

E300P

E300P

E300P

08.19.19

Prep Method:

Prep Method:

Date Prep:



Seq Number:

QC Summary 634284

LT Environmental, Inc.

JRU 34

Analytical Method: Chloride by EPA 300

3099041 Matrix: Solid

LCS Sample Id: 7684479-1-BKS LCSD Sample Id: 7684479-1-BSD MB Sample Id: 7684479-1-BLK

MR Spike LCS LCS Limits %RPD RPD Limit Units LCSD LCSD Analysis Flag **Parameter** Result Amount Result %Rec Date %Rec Result

08.19.19 15:04 Chloride < 5.00 250 241 96 239 96 90-110 20 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: Seq Number: 3099041 Matrix: Soil Date Prep: 08.19.19

Parent Sample Id: 634286-003 MS Sample Id: 634286-003 S MSD Sample Id: 634286-003 SD

Parent Spike MS MS %RPD RPD Limit Units **MSD MSD** Limits Analysis Flag **Parameter** Result Result %Rec Date Amount Result %Rec

Chloride 15.4 249 282 107 283 107 90-110 0 20 mg/kg 08.20.19 11:58

Analytical Method: Chloride by EPA 300

Seq Number: 3099041 Matrix: Soil 08.19.19 Date Prep:

MS Sample Id: 634401-012 S MSD Sample Id: 634401-012 SD Parent Sample Id: 634401-012

MS %RPD RPD Limit Units Parent Spike MS **MSD MSD** Limits Analysis Flag **Parameter** Result Date Result %Rec Amount Result %Rec 08.19.19 15:23 Chloride 93.2 250 349 102 348 102 90-110 0 20 mg/kg

Analytical Method: TPH by SW8015 Mod

TX1005P Prep Method: Seq Number: 3099047 Matrix: Solid 08.19.19 Date Prep:

MB Sample Id: 7684493-1-BKS LCSD Sample Id: 7684493-1-BSD LCS Sample Id: 7684493-1-BLK

%RPD RPD Limit Units MB Spike LCS LCS LCSD LCSD Limits Analysis Flag **Parameter** Result %Rec Date Result Amount Result %Rec 08.20.19 04:33 Gasoline Range Hydrocarbons (GRO) 959 96 70-135 2 20 <15.0 1000 936 94 mg/kg 08.20.19 04:33 1000 100 977 70-135 2 20 Diesel Range Organics (DRO) 1000 98 <25.0 mg/kg

MB LCS LCSD MB LCS LCSD Limits Units Analysis **Surrogate** %Rec Flag %Rec Flag Flag Date %Rec 1-Chlorooctane 97 122 119 70-135 % 08.20.19 04:33 100 08.20.19 04:33 o-Terphenyl 100 103 70-135 %

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

= MS/LCS Result = MSD/LCSD Result

A = Parent Result B = Spike Added D = MSD/LCSD % Rec

MS = Matrix Spike

Flag



Seq Number:

MB Sample Id:

QC Summary 634284

LT Environmental, Inc.

JRU 34

Analytical Method: TPH by SW8015 Mod

3099047 Matrix: Soil

MS Sample Id: 634301-001 S Parent Sample Id: 634301-001

TX1005P Prep Method:

Date Prep: 08.19.19

MSD Sample Id: 634301-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	973	97	976	98	70-135	0	20	mg/kg	08.20.19 05:30	
Diesel Range Organics (DRO)	<25.0	998	1020	102	1030	103	70-135	1	20	mg/kg	08.20.19 05:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		118		70-135	%	08.20.19 05:30
o-Terphenyl	105		106		70-135	%	08.20.19 05:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099158

7684441-1-BLK

Matrix: Solid

LCS Sample Id: 7684441-1-BKS

Prep Method: SW5030B

Date Prep: 08.17.19 LCSD Sample Id: 7684441-1-BSD

%RPD RPD Limit Units LCS LCS MB Spike Limits Analysis **LCSD** LCSD **Parameter** Date Result Amount Result %Rec Result %Rec 0.0909 08.20.19 02:53 Benzene < 0.00200 0.100 0.0898 90 70-130 1 35 mg/kg 0.0945 Toluene < 0.000456 0.100 95 0.0982 70-130 08.20.19 02:53 98 4 35

mg/kg 08.20.19 02:53 95 70-130 35 Ethylbenzene < 0.00200 0.100 0.0946 0.102 102 8 mg/kg 08.20.19 02:53 m,p-Xylenes < 0.00101 0.200 0.181 91 0.19698 70-130 8 35 mg/kg < 0.000344 0.0951 95 103 70-130 35 08.20.19 02:53 o-Xylene 0.100 0.103 mg/kg

MB MB LCS LCS LCSD LCSD Limits Units Analysis **Surrogate** %Rec %Rec Flag Flag Flag Date %Rec 1.4-Difluorobenzene 96 95 95 70-130 % 08.20.19 02:53 08.20.19 02:53 4-Bromofluorobenzene 102 107 109 70-130 %

Analytical Method: BTEX by EPA 8021B

Seq Number: 3099158 Parent Sample Id:

Matrix: Soil

Prep Method: SW5030B Date Prep:

08.17.19

MS Sample Id: 634291-001 S MSD Sample Id: 634291-001 SD 634291-001

MS %RPD RPD Limit Units Parent Spike MS MSD MSD Limits Analysis Flag **Parameter** Result Amount Result %Rec %Rec Date Result 08.20.19 03:33 0.0998 60 0.0563 Benzene 0.00139 0.0611 55 70-130 8 35 mg/kg X Toluene 0.0373 0.0998 0.0644 27 0.0547 17 70-130 16 35 08.20.19 03:33 X mg/kg mg/kg 08.20.19 03:33 Ethylbenzene 0.0180 0.0998 0.0518 34 0.0291 11 70-130 56 35 XF 0 08.20.19 03:33 0.0673 0.200 0.0652 0.0640 0 70-130 2 35 X m,p-Xylenes mg/kg 08.20.19 03:33 70-130 X o-Xylene 0.107 0.0998 0.118 11 0.111 4 35 mg/kg

MS MSD MS **MSD** Limits Units Analysis **Surrogate** %Rec Flag Flag Date %Rec 1,4-Difluorobenzene 104 103 70-130 % 08.20.19 03:33 4-Bromofluorobenzene 186 ** 207 ** 70-130 % 08.20.19 03:33

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample

A = Parent Result

= MS/LCS Result = MSD/LCSD Result MS = Matrix SpikeB = Spike Added D = MSD/LCSD % Rec

Company Name:	Project Manager:	8
LT Environme	Dan Moir	E NORATOR

Revised Date 051418 Rev. 2018.1		Ö					Kecei	Recei
		4					vea	ved
		45 2	2:9/16/15/18	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	DAVO		NO XAMO	by C
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time		Received by: (Signature)	(Signature)	# 1	CI
	olsses are due to circumstances beyond the control will be enforced unless previously negotiated.	incurred by the client if such losses are due to circu ut not analyzed. These terms will be enforced unless	/ losses or expenses i	e any responsibility for any rge of \$5 for each sample s	and shall not assum	enco. 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	enco. A minimum charge	: 9/29
. Na Sr Tl Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg	ly SiO2	b Mn Mc	RA Sb As Ba Be	TCLP / SPLP 6010: 8RCRA	/Zed TCLF	Circle Method(s) and Metal(s) to be analyzed e: Signature of this document and relinquishment of sample:	Circle Method(s) &	/2020 8
· ·			VI CP V	13PPM	8RCRA	200.8 / 6020:	Total 200.7 / 6010	:41
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Sample Comments		Chlor	Nun TPH BTE	Sampled Depth	mpled			
lab, if received by 4:30pm		_	(EPA		Date 1		Sample Identification	
TAT starts the day recevied by the	TAT		801		Total Containers:		Sample Custody Seals:	_
	I		5)	Factor: -0,2	Correction Factor:	Yes No N/A	Cooler Custody Seals:	
				t00-W	1-4	Yes No	Received Intact:	
			ers	╸		1.10	Temperature (°C):	
				Wet Ice: Yes No	Yes No	PT Temp Blank:	SAMPLE RECEIPT	
				Due Date:		Garrett Green	Sampler's Name:	
						ZR13553	P.O. Number:	
Work Order Notes		מומיר מים ארמטרים		Routine V			Project Number:	
Curci.		ANALYSIS DECLE		Turn Around		JRU34	Project Name:	
Other:			.com	Email: ggreen@lte		432.704.5178	Phone:	
D	Reporting:Level III Pervice		IP: Midland, Tx 79705	City, State ZIP:		Midland, TX 79705	ate ZIP:	
s RC uperfund	State of Project:			Address:		3300 North A Street		
ients				e Company Name:	, Permian office	LT Environmental, Inc.,	Company Name:	
age of		ell	rent) Kyle Littrell	Bill to: (if different)		Dan Moir		
_	VANA SORO OD	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)	IIX,AZ (480-355-0900	Midland,TX (432-704 M (575-392-7550) Phoen	Hobbs, N			Page
LASTER	Work Order No:	Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334	-4200 Dallas,TX (21	Houston, TX (281) 240			54 6	54 (
1211201	Wart Outer No.	Chain of Custody	Chain				\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	of 1

Page 1 of 1

IOS Number 46432

Date/Time: 08/16/19 10:39

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.: 7760 0892 0480

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
634284-001	S	SS01	08/15/19 11:50	SW8021B	BTEX by EPA 8021B	08/21/19	08/29/19	JKR	BR4FBZ BZ BZME EBZ X	
634284-001	S	SS01	08/15/19 11:50	E300_CL	Chloride by EPA 300	08/21/19	02/11/20	JKR	CL	
634284-001	S	SS01	08/15/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	08/21/19	08/29/19	JKR	GRO-DRO PHCC10C28 PI	
634284-002	S	SS02	08/15/19 12:00	E300_CL	Chloride by EPA 300	08/21/19	02/11/20	JKR	CL	
634284-002	S	SS02	08/15/19 12:00	SW8021B	BTEX by EPA 8021B	08/21/19	08/29/19	JKR	BR4FBZ BZ BZME EBZ X	
634284-002	S	SS02	08/15/19 12:00	SW8015MOD_NM	TPH by SW8015 Mod	08/21/19	08/29/19	JKR	GRO-DRO PHCC10C28 PI	
634284-003	S	SS03	08/15/19 12:05	SW8021B	BTEX by EPA 8021B	08/21/19	08/29/19	JKR	BR4FBZ BZ BZME EBZ X	
634284-003	S	SS03	08/15/19 12:05	E300_CL	Chloride by EPA 300	08/21/19	02/11/20	JKR	CL	
634284-003	S	SS03	08/15/19 12:05	SW8015MOD_NM	TPH by SW8015 Mod	08/21/19	08/29/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 08/16/2019

Received By:

Katie Lowe

Date Received: 08/17/2019 12:15

Cooler Temperature: 3.8

Received by OCD: 9/29/2020 8:41:53 AM ENGU LABORATORIES Into

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland IOS #: 46432

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

Temperature Measuring device used:

Sent By: Elizabeth McClellan Date Sent: 08/16/2019 10:39 AM Received By: Katie Lowe Date Received: 08/17/2019 12:15 PM

Received By: Katie Lowe	Date Received: 08/17/2019	12:15 PM	
	Sample Receipt Check	dist	Comments
#1 *Temperature of cooler(s)?		3.8	
#2 *Shipping container in good conditi	on?	Yes	
#3 *Samples received with appropriate	e temperature?	Yes	
#4 *Custody Seals intact on shipping of	container/ cooler?	N/A	
#5 *Custody Seals Signed and dated f	or Containers/coolers	N/A	
#6 *IOS present?		Yes	
#7 Any missing/extra samples?		No	
#8 IOS agrees with sample label(s)/ma	atrix?	Yes	
#9 Sample matrix/ properties agree wi	th IOS?	Yes	
#10 Samples in proper container/ bottl	e?	Yes	
#11 Samples properly preserved?		Yes	
#12 Sample container(s) intact?		Yes	
#13 Sufficient sample amount for indic	eated test(s)?	Yes	
#14 All samples received within hold to	me?	Yes	
* Must be completed for after-hours d NonConformance:	elivery of samples prior to pla	icing in the refrigerator	
Corrective Action Taken:			
	Nonconformance Docu	mentation	
Contact:	Contacted by :	Date:	
Checklist reviewed by:	Shuffull Katie Lowe	Date: <u>08/17/2019</u>	



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/15/2019 04:45:00 PM

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

Temperature Measuring device used: T-NM-007

Work Order #: 634284

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		1.6	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ cooler?	No	
#5 Custody Seals intact on sample bottles?		No	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		Yes	Subbed to Xenco Midland.
#18 Water VOC samples have zero headsp	ace?	N/A	

Analyst:		PH Device/Lot#:		
	Checklist completed by:	Elizabeth McClellan	Date: <u>08/16/2019</u>	
	Checklist reviewed by:	Jessica Vramer Jessica Kramer	Date: <u>08/20/2019</u>	

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

Analytical Report 646843

for

LT Environmental, Inc.

Project Manager: Dan Moir JRU 34 012919156 20-DEC-19

Collected By: Client



1089 N Canal Street Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483)



20-DEC-19

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

Reference: XENCO Report No(s): 646843

JRU 34

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) 646843. 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. 646843 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Vramer

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 646843

LT Environmental, Inc., Arvada, CO

JRU 34

Matrix	Date Collected	Sample Depth	Lab Sample Id
S	12-17-19 08:58	0 - 10 ft	646843-001
S	12-17-19 09:20	0 - 10 ft	646843-002
S	12-17-19 09:35	0 - 10 ft	646843-003
S	12-17-19 09:56	0 - 10 ft	646843-004
S	12-17-19 10:01	0 - 10 ft	646843-005
S	12-17-19 12:39	0 - 10 ft	646843-006
S	12-17-19 12:42	0 - 10 ft	646843-007
S	12-17-19 13:47	0 - 10 ft	646843-008
S	12-17-19 14:02	10 ft	646843-009
S	12-17-19 14:11	10 ft	646843-010
S	12-17-19 14:28	10 ft	646843-011
S	12-17-19 14:37	10 ft	646843-012
S	12-17-19 15:32	10 ft	646843-013
S	12-17-19 15:36	10 ft	646843-014
S	12-17-19 15:53	10 ft	646843-015
S	12-17-19 15:57	10 ft	646843-016
S	12-17-19 16:09	10 ft	646843-017
S	12-17-19 16:11	10 ft	646843-018
	S S S S S S S S S S S S S S S S S S S	S 12-17-19 08:58 S 12-17-19 09:20 S 12-17-19 09:35 S 12-17-19 09:56 S 12-17-19 10:01 S 12-17-19 12:39 S 12-17-19 12:42 S 12-17-19 13:47 S 12-17-19 14:02 S 12-17-19 14:11 S 12-17-19 14:28 S 12-17-19 14:37 S 12-17-19 15:32 S 12-17-19 15:53 S 12-17-19 15:53 S 12-17-19 15:57 S 12-17-19 16:09	S 12-17-19 08:58 0 - 10 ft S 12-17-19 09:20 0 - 10 ft S 12-17-19 09:35 0 - 10 ft S 12-17-19 09:56 0 - 10 ft S 12-17-19 10:01 0 - 10 ft S 12-17-19 12:39 0 - 10 ft S 12-17-19 12:42 0 - 10 ft S 12-17-19 13:47 0 - 10 ft S 12-17-19 14:02 10 ft S 12-17-19 14:11 10 ft S 12-17-19 14:28 10 ft S 12-17-19 14:37 10 ft S 12-17-19 15:32 10 ft S 12-17-19 15:36 10 ft S 12-17-19 15:53 10 ft S 12-17-19 15:57 10 ft S 12-17-19 15:57 10 ft

CASE NARRATIVE

Client Name: LT Environmental, Inc. Project Name: JRU 34

Project ID: Report Date: 20-DEC-19 012919156 Work Order Number(s): 646843 Date Received: 12/18/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3111020 BTEX by EPA 8021B

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

Batch: LBA-3111022 BTEX by EPA 8021B

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

Batch: LBA-3111023 Chloride by EPA 300

Lab Sample ID 646843-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 646843-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014.

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

Batch: LBA-3111033 Chloride by EPA 300

Lab Sample ID 646846-007 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 646843-015, -016, -017, -018. The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3111059 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-

analysis.

Samples affected are: 646843-013.

Received by OCD: 9/29/2020 8:41:53 AM XENCO LABORATORIES

Certificate of Analysis Summary 646843

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Date Received in Lab: Wed Dec-18-19 12:58 pm

Report Date: 20-DEC-19 **Project Manager:** Jessica Kramer

Project Id: 012919156 Contact: Dan Moir

Project Location:

	Lab Id:	646843-0	001	646843-0	002	646843-0	003	646843-	004	646843-	005	646843-0	006
	Field Id:	SW02		SW03		SW04		SW0:		SW0		SW07	
Analysis Requested	Depth:	0-10 ft		0-10 f	t	0-10 f	:	0-10 f	t	0-10 f	t	0-10 f	t
	Matrix:	SOIL		SOIL	,	SOIL		SOIL	,	SOIL		SOIL	,
	Sampled:	Dec-17-19 (08:58	Dec-17-19	09:20	Dec-17-19	09:35	Dec-17-19	09:56	Dec-17-19	10:01	Dec-17-19	12:39
BTEX by EPA 8021B	Extracted:	Dec-18-19	14:00	Dec-18-19	14:00	Dec-18-19	14:00	Dec-18-19	14:00	Dec-18-19	14:00	Dec-18-19	14:00
	Analyzed:	Dec-18-19	17:59	Dec-18-19	19:03	Dec-18-19	19:22	Dec-18-19	19:41	Dec-19-19	05:53	Dec-18-19	20:19
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00463	0.00463	< 0.00198	0.00198
Toluene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.0185	0.0185	< 0.00198	0.00198
Ethylbenzene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	0.0527	0.0185	< 0.00198	0.00198
m,p-Xylenes		< 0.00401	0.00401	< 0.00397	0.00397	< 0.00401	0.00401	0.00519	0.00397	0.0797	0.0370	< 0.00396	0.00396
o-Xylene		< 0.00200	0.00200	< 0.00198	0.00198	0.00248	0.00200	< 0.00198	0.00198	0.111	0.0185	< 0.00198	0.00198
Total Xylenes		< 0.00200	0.00200	< 0.00198	0.00198	0.00248	0.00200	0.00519	0.00198	0.191	0.0185	< 0.00198	0.00198
Total BTEX		< 0.00200	0.00200	< 0.00198	0.00198	0.00248	0.00200	0.00519	0.00198	0.243	0.00463	< 0.00198	0.00198
Chloride by EPA 300	Extracted:	Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19	14:30
	Analyzed:	Dec-18-19	17:44	Dec-18-19	17:49	Dec-18-19	17:55	Dec-18-19	18:01	Dec-18-19	18:07	Dec-18-19	18:36
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3300	9.96	3150	9.98	2420	10.0	4230 D	100	4590 D	99.8	2560	9.98
TPH by SW8015 Mod	Extracted:	Dec-18-19	14:20	Dec-18-19	14:20	Dec-18-19	14:20	Dec-18-19	14:20	Dec-18-19	14:20	Dec-18-19	14:20
	Analyzed:	Dec-18-19	14:42	Dec-18-19	15:02	Dec-18-19	15:02	Dec-18-19	15:21	Dec-18-19	15:21	Dec-18-19	15:41
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.1	50.1	<50.2	50.2	<50.0	50.0	93.0	50.3	< 50.2	50.2
Diesel Range Organics (DRO)		51.7	50.0	<50.1	50.1	544	50.2	<50.0	50.0	3450	50.3	< 50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.1	50.1	59.0	50.2	<50.0	50.0	345	50.3	< 50.2	50.2
Total GRO-DRO		51.7	50.0	<50.1	50.1	544	50.2	<50.0	50.0	3540	50.3	< 50.2	50.2
Total TPH		51.7	50.0	<50.1	50.1	603	50.2	<50.0	50.0	3890	50.3	< 50.2	50.2

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

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Version: 1.%

Jessica Kramer
Project Assistant

Received by OCD: 9/29/2020 8:41:53 AM XENCO LABORATORIES

Project Id:

Project Location:

Contact:

012919156

Dan Moir

Certificate of Analysis Summary 646843

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Date Received in Lab: Wed Dec-18-19 12:58 pm

Report Date: 20-DEC-19

Project Manager: Jessica Kramer

					-								
	Lab Id:	646843-	007	646843-	008	646843-0	009	646843-0	010	646843-0	011	646843-0	012
Analysis Requested	Field Id:	SW0	8	SW0	1	FS01		FS02		FS03		FS04	
Anatysis Requested	Depth:	0-10 f	ì	0-10 f	t	10- ft		10- ft		10- ft		10- ft	
	Matrix:	SOIL		SOIL	,								
	Sampled:	Dec-17-19	12:42	Dec-17-19	13:47	Dec-17-19	14:02	Dec-17-19	14:11	Dec-17-19	14:28	Dec-17-19	14:37
BTEX by EPA 8021B	Extracted:	Dec-18-19	14:00	Dec-18-19	15:00								
	Analyzed:	Dec-18-19	20:38	Dec-18-19	20:58	Dec-18-19	21:17	Dec-18-19	21:36	Dec-18-19	21:55	Dec-18-19	18:08
	Units/RL:	mg/kg	RL										
Benzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
Toluene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
Ethylbenzene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
m,p-Xylenes		< 0.00396	0.00396	< 0.00396	0.00396	< 0.00398	0.00398	< 0.00396	0.00396	< 0.00396	0.00396	< 0.00398	0.00398
o-Xylene		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
Total Xylenes		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
Total BTEX		< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00199	0.00199
Chloride by EPA 300	Extracted:	Dec-18-19 14:30		Dec-18-19 14:30		Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19 14:30		Dec-18-19	14:30
	Analyzed:	Dec-18-19	18:41	Dec-18-19	18:47	Dec-18-19	18:53	Dec-18-19	18:59	Dec-18-19	19:04	Dec-18-19	19:10
	Units/RL:	mg/kg	RL										
Chloride		525	10.0	537	10.0	2660	10.1	6240 D	100	1260	9.94	89.7	9.98
TPH by SW8015 Mod	Extracted:	Dec-18-19	14:20	Dec-18-19	14:20	Dec-18-19 14:20		Dec-18-19 14:20		Dec-18-19 14:20		Dec-18-19 15:00	
	Analyzed:	Dec-18-19	16:01	Dec-18-19	16:01	Dec-18-19	16:21	Dec-18-19	16:21	Dec-18-19	16:41	Dec-18-19	17:21
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	< 50.1	50.1
Diesel Range Organics (DRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.1	50.1
Total GRO-DRO		<50.1	50.1	<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.1	50.1
Total TPH		< 50.1	50.1	<49.9	49.9	< 50.1	50.1	< 50.0	50.0	< 50.1	50.1	< 50.1	50.1

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Version: 1.%

Jessica Kramer Project Assistant

Jessica Weamer



Certificate of Analysis Summary 646843

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Date Received in Lab: Wed Dec-18-19 12:58 pm

Report Date: 20-DEC-19 **Project Manager:** Jessica Kramer

Project Id: 012919156 Contact: Dan Moir

Project Location:

	Lab Id:	646843-0	013	646843-0	014	646843-0)15	646843-0)16	646843-	017	646843-0	018
	Field Id:	FS05		FS06		FS07		FS08		FS09)	FS10	
Analysis Requested	Depth:	10- ft		10- ft		10- ft		10- ft		10- ft	t	10- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	SOIL	_	SOIL	,
	Sampled:	Dec-17-19	15:32	Dec-17-19	15:36	Dec-17-19	15:53	Dec-17-19	15:57	Dec-17-19	16:09	Dec-17-19	16:11
BTEX by EPA 8021B	Extracted:	Dec-18-19	15:00										
	Analyzed:	Dec-18-19	18:25	Dec-18-19	18:43	Dec-18-19	19:00	Dec-18-19	19:18	Dec-18-19	19:35	Dec-18-19	19:52
	Units/RL:	mg/kg	RL										
Benzene	·	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Toluene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Ethylbenzene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
m,p-Xylenes		< 0.00399	0.00399	< 0.00397	0.00397	< 0.00399	0.00399	< 0.00395	0.00395	< 0.00399	0.00399	< 0.00400	0.00400
Xylene		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Total Xylenes		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Total BTEX		< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00200	0.00200	< 0.00200	0.00200
Chloride by EPA 300	Extracted:	Dec-18-19	14:30	Dec-18-19	14:30	Dec-18-19	15:00	Dec-18-19	15:00	Dec-18-19	15:00	Dec-18-19	15:00
	Analyzed:	Dec-18-19	19:16	Dec-18-19	19:22	Dec-18-19	19:57	Dec-18-19	20:15	Dec-18-19	20:21	Dec-18-19	20:27
	Units/RL:	mg/kg	RL										
Chloride		207	9.90	382	9.98	123	9.98	453	10.0	727	9.98	739	9.94
TPH by SW8015 Mod	Extracted:	Dec-18-19	15:00										
	Analyzed:	Dec-18-19	18:00	Dec-18-19	18:00	Dec-18-19	18:20	Dec-18-19	18:20	Dec-18-19	18:40	Dec-18-19	18:40
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.3	50.3	<50.1	50.1	<49.9	49.9	<50.2	50.2	< 50.2	50.2
Diesel Range Organics (DRO)		<50.3	50.3	<50.3	50.3	<50.1	50.1	<49.9	49.9	<50.2	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.3	50.3	< 50.1	50.1	<49.9	49.9	< 50.2	50.2	< 50.2	50.2
Total GRO-DRO		< 50.3	50.3	<50.3	50.3	< 50.1	50.1	<49.9	49.9	< 50.2	50.2	<50.2	50.2
Total TPH		< 50.3	50.3	<50.3	50.3	< 50.1	50.1	<49.9	49.9	< 50.2	50.2	< 50.2	50.2

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Version: 1.%

Jessica Kramer
Project Assistant



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW02**

Matrix:

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-001

Date Collected: 12.17.19 08.58

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB MAB

Date Prep:

12.18.19 14.30

Basis:

Wet Weight

Seq Number: 3111023

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3300	9.96	mg/kg	12.18.19 17.44		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 12.18.19 14.20 Basis: Wet Weight

Seq Number: 3111041

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	12.18.19 14.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	51.7	50.0		mg/kg	12.18.19 14.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	12.18.19 14.42	U	1
Total GRO-DRO	PHC628	51.7	50.0		mg/kg	12.18.19 14.42		1
Total TPH	PHC635	51.7	50.0		mg/kg	12.18.19 14.42		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	88	%	70-135	12.18.19 14.42		
o-Terphenyl		84-15-1	97	%	70-135	12.18.19 14.42		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW02

Matrix: Soil

Date Received:12.18.19 12.58

Date Collected: 12.17.19 08.58

Sample Depth:0 - 10 ft

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

% Moisture:

Tech: MAB

Analyst: MAB

Lab Sample Id: 646843-001

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Seq Number: 3111020

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	12.18.19 17.59	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	12.18.19 17.59	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	104	%	70-130	12.18.19 17.59		
4-Bromofluorobenzene		460-00-4	122	%	70-130	12.18.19 17.59		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW03** Matrix:

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-002

Date Collected: 12.17.19 09.20

Sample Depth:0 - 10 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB

12.18.19 14.30

% Moisture:

Basis:

Wet Weight

Seq Number: 3111023

Tech:

Analyst:

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 3150 12.18.19 17.49 9.98 mg/kg 1

Date Prep:

Analytical Method: TPH by SW8015 Mod

Tech:

DTH

DTH Analyst: Seq Number: 3111041

o-Terphenyl

Date Prep: 12.18.19 14.20

104

Prep Method: SW8015P

12.18.19 15.02

70-135

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	12.18.19 15.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 15.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 15.02	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 15.02	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 15.02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	96	%	70-135	12.18.19 15.02		

84-15-1



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW03 Matrix:

Soil Date Received:12.18.19 12.58

Lab Sample Id: 646843-002

Date Collected: 12.17.19 09.20 Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Seq Number: 3111020

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	12.18.19 19.03	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 19.03	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	103	%	70-130	12.18.19 19.03		
4-Bromofluorobenzene		460-00-4	111	%	70-130	12.18.19 19.03		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SW04**

Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-003

Date Collected: 12.17.19 09.35

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

MAB

Basis:

Wet Weight

Analyst:

MAB

Date Prep: 12.18.19 14.30

Seq Number: 3111023

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2420	10.0	mg/kg	12.18.19 17.55		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 12.18.19 14.20 Basis: Wet Weight

Seq Number: 3111041

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	12.18.19 15.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	544	50.2		mg/kg	12.18.19 15.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	59.0	50.2		mg/kg	12.18.19 15.02		1
Total GRO-DRO	PHC628	544	50.2		mg/kg	12.18.19 15.02		1
Total TPH	PHC635	603	50.2		mg/kg	12.18.19 15.02		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	97	%	70-135	12.18.19 15.02		
o-Terphenyl		84-15-1	101	%	70-135	12.18.19 15.02		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: SW04

Lab Sample Id: 646843-003

MAB

Date Received:12.18.19 12.58

Date Collected: 12.17.19 09.35 Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: MAB

Analyst:

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Seq Number: 3111020

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	12.18.19 19.22	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	12.18.19 19.22	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	12.18.19 19.22	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	12.18.19 19.22	U	1
o-Xylene	95-47-6	0.00248	0.00200		mg/kg	12.18.19 19.22		1
Total Xylenes	1330-20-7	0.00248	0.00200		mg/kg	12.18.19 19.22		1
Total BTEX		0.00248	0.00200		mg/kg	12.18.19 19.22		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	12.18.19 19.22		
4-Bromofluorobenzene		460-00-4	120	%	70-130	12.18.19 19.22		

Matrix:



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW05**

Matrix:

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-004

Date Collected: 12.17.19 09.56

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

Date Prep: 12.18.19 14.30 % Moisture: Basis:

Wet Weight

Analyst: MAB

Seq Number: 3111023

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4230	100	mg/kg	12.19.19 12.23	D	10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 12.18.19 14.20 Basis:

Wet Weight

Seq Number: 3111041

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	12.18.19 15.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	12.18.19 15.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	12.18.19 15.21	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	12.18.19 15.21	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	12.18.19 15.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	12.18.19 15.21		
o-Terphenyl		84-15-1	102	%	70-135	12.18.19 15.21		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SW05** Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-004

Date Collected: 12.17.19 09.56

Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

12.18.19 14.00

% Moisture:

MAB Analyst:

Date Prep:

Basis:

Wet Weight

Seq Number: 3111020

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 19.41	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 19.41	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 19.41	U	1
m,p-Xylenes	179601-23-1	0.00519	0.00397		mg/kg	12.18.19 19.41		1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 19.41	U	1
Total Xylenes	1330-20-7	0.00519	0.00198		mg/kg	12.18.19 19.41		1
Total BTEX		0.00519	0.00198		mg/kg	12.18.19 19.41		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	12.18.19 19.41		
4-Bromofluorobenzene		460-00-4	118	%	70-130	12.18.19 19.41		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW06** Matrix:

Result

4590

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-005

Date Collected: 12.17.19 10.01

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

Parameter

Chloride

MAB

Wet Weight

Analyst: Seq Number: 3111023

MAB

Date Prep: 12.18.19 14.30

RL

99.8

Basis:

Units

mg/kg

Dil

10

Flag

D

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Analysis Date

12.19.19 12.29

% Moisture:

Tech:

Analyst:

DTH DTH

Date Prep:

Cas Number

16887-00-6

12.18.19 14.20

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	93.0	50.3		mg/kg	12.18.19 15.21		1
Diesel Range Organics (DRO)	C10C28DRO	3450	50.3		mg/kg	12.18.19 15.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	345	50.3		mg/kg	12.18.19 15.21		1
Total GRO-DRO	PHC628	3540	50.3		mg/kg	12.18.19 15.21		1
Total TPH	PHC635	3890	50.3		mg/kg	12.18.19 15.21		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	104	%	70-135	12.18.19 15.21		
o-Terphenyl		84-15-1	125	%	70-135	12.18.19 15.21		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SW06** Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-005

MAB

Date Collected: 12.17.19 10.01

Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

Analyst:

% Moisture: Basis:

Date Prep: 12.18.19 14.00 Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00463	0.00463		mg/kg	12.19.19 05.53	U	1
Toluene	108-88-3	< 0.0185	0.0185		mg/kg	12.19.19 05.53	U	1
Ethylbenzene	100-41-4	0.0527	0.0185		mg/kg	12.19.19 05.53		1
m,p-Xylenes	179601-23-1	0.0797	0.0370		mg/kg	12.19.19 05.53		1
o-Xylene	95-47-6	0.111	0.0185		mg/kg	12.19.19 05.53		1
Total Xylenes	1330-20-7	0.191	0.0185		mg/kg	12.19.19 05.53		1
Total BTEX		0.243	0.00463		mg/kg	12.19.19 05.53		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	117	%	70-130	12.19.19 05.53		
1,4-Difluorobenzene		540-36-3	99	%	70-130	12.19.19 05.53		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: SW07

Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-006

Date Collected: 12.17.19 12.39

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

12.18.19 14.30

Basis:

Wet Weight

Seq Number: 3111023

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2560	9.98	mø/kø	12.18.19.18.36		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 12.18.19 14.20

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	12.18.19 15.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	12.18.19 15.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	12.18.19 15.41	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	12.18.19 15.41	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	12.18.19 15.41	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	12.18.19 15.41		
o-Terphenyl		84-15-1	97	%	70-135	12.18.19 15.41		



Lab Sample Id: 646843-006

Certificate of Analytical Results 646843

LT Environmental, Inc., Arvada, CO

JRU 34

Soil

12.18.19 14.00

Sample Id: SW07

Date Collected: 12.17.19 12.39

Matrix:

Date Received:12.18.19 12.58

Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

Analyst:

MAB Date Prep:

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	12.18.19 20.19	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 20.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	125	%	70-130	12.18.19 20.19		
1,4-Difluorobenzene		540-36-3	104	%	70-130	12.18.19 20.19		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW08

Matrix:

Result

525

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-007

Date Collected: 12.17.19 12.42

Sample Depth:0 - 10 ft
Prep Method: E300P

Analytical Method: Chloride by EPA 300

% Moisture:

Tech:

Parameter

Chloride

MAB

Date Prep: 12.18.19 14.30

10.0

RL

Basis:

Wet Weight

Analyst: MAB

Seq Number: 3111023

11023

Cas Number

16887-00-6

Units

mg/kg

Flag Dil

1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Analysis Date

12.18.19 18.41

% Moisture:

Tech: Analyst: DTH DTH

Date Prep: 12.18.19 14.20

Basis: V

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	12.18.19 16.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 16.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 16.01	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 16.01	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 16.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	12.18.19 16.01		
o-Terphenyl		84-15-1	95	%	70-135	12.18.19 16.01		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW08 Matrix:

Soil Date Received:12.18.19 12.58

Lab Sample Id: 646843-007 Date Collected: 12.17.19 12.42

Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	12.18.19 20.38	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 20.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	121	%	70-130	12.18.19 20.38		
1,4-Difluorobenzene		540-36-3	98	%	70-130	12.18.19 20.38		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **SW01** Matrix:

Result

537

Cas Number

16887-00-6

Date Received:12.18.19 12.58

Lab Sample Id: 646843-008

Date Collected: 12.17.19 13.47

Sample Depth:0 - 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analysis Date

Tech:

Parameter

Chloride

MAB

% Moisture:

MAB Analyst: Seq Number: 3111023 Date Prep: 12.18.19 14.30

RL

Basis:

Units

Wet Weight

Flag

Dil

1

Analytical Method: TPH by SW8015 Mod

10.0 12.18.19 18.47 mg/kg

Prep Method: SW8015P

DTH Tech:

% Moisture:

DTH Analyst:

Date Prep: 12.18.19 14.20 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	12.18.19 16.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	12.18.19 16.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	12.18.19 16.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	12.18.19 16.01	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	12.18.19 16.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	12.18.19 16.01		
o-Terphenyl		84-15-1	91	%	70-135	12.18.19 16.01		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

12.18.19 14.00

Sample Id: SW01

Lab Sample Id: 646843-008

Matrix:

Date Received:12.18.19 12.58

Date Collected: 12.17.19 13.47 Sample Depth:0 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

% Moisture:

Tech: MAB

Analyst:

MAB Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	12.18.19 20.58	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 20.58	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	102	%	70-130	12.18.19 20.58		
4-Bromofluorobenzene		460-00-4	121	%	70-130	12.18.19 20.58		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **FS01** Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-009

Date Collected: 12.17.19 14.02

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Wet Weight

Analyst: Seq Number: 3111023

MAB

Date Prep: 12.18.19 14.30 Basis:

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 2660 10.1 12.18.19 18.53 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech:

DTH

% Moisture:

DTH Analyst:

Date Prep: 12.18.19 14.20 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	12.18.19 16.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 16.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 16.21	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 16.21	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 16.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	12.18.19 16.21		
o-Terphenyl		84-15-1	95	%	70-135	12.18.19 16.21		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS01 Matrix: Soil Date Received:12.18.19 12.58

Date Collected: 12.17.19 14.02 Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

Lab Sample Id: 646843-009

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	12.18.19 21.17	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	12.18.19 21.17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	103	%	70-130	12.18.19 21.17		
4-Bromofluorobenzene		460-00-4	122	%	70-130	12.18.19 21.17		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS02

'S02

Matrix: Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-010

Date Collected: 12.17.19 14.11

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: Analyst: MAB MAB

Date Prep: 12.18.19 14.30

% Moisture: Basis:

Wet Weight

Seq Number: 3111023

seq rumber.

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6240	100	mg/kg	12.19.19 12.35	D	10

Analytical Method: TPH by SW8015 Mod

DTH

Prep Method: SW8015P

Tech: DTH

Analyst:

Date Prep: 12.18.19 14.20

% Moisture: Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0		mg/kg	12.18.19 16.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	12.18.19 16.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	12.18.19 16.21	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	12.18.19 16.21	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	12.18.19 16.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	88	%	70-135	12.18.19 16.21		
o-Terphenyl		84-15-1	93	%	70-135	12.18.19 16.21		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: FS02 Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-010

Date Collected: 12.17.19 14.11

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 14.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	12.18.19 21.36	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 21.36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	123	%	70-130	12.18.19 21.36		
1,4-Difluorobenzene		540-36-3	106	%	70-130	12.18.19 21.36		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS03

Matrix: Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-011

Date Collected: 12.17.19 14.28

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 14.30

Basis:

Wet Weight

Seq Number: 3111023

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1260	9.94	mg/kg	12.18.19 19.04		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 12.18.19 14.20

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1		mg/kg	12.18.19 16.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 16.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 16.41	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 16.41	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 16.41	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	12.18.19 16.41		
o-Terphenyl		84-15-1	100	%	70-135	12.18.19 16.41		



LT Environmental, Inc., Arvada, CO

JRU 34

FS03 Sample Id: Matrix: Soil

Date Received:12.18.19 12.58 Date Collected: 12.17.19 14.28 Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

% Moisture:

Tech: MAB MAB

Analyst:

Date Prep: 12.18.19 14.00

Wet Weight Basis:

Seq Number: 3111020

Lab Sample Id: 646843-011

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	12.18.19 21.55	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 21.55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	100	%	70-130	12.18.19 21.55		
4-Bromofluorobenzene		460-00-4	122	%	70-130	12.18.19 21.55		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS04

Matrix:

Date Prep:

Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-012

Date Collected: 12.17.19 14.37

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: MAB

MAB

12.18.19 14.30

Basis:

Wet Weight

Seq Number: 3111023

-

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.7	9.98	mg/kg	12.18.19 19.10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:

Analyst:

DTH DTH

Date Prep: 12.18.19 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	12.18.19 17.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 17.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 17.21	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 17.21	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 17.21	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	104	%	70-135	12.18.19 17.21		
o-Terphenyl		84-15-1	106	%	70-135	12.18.19 17.21		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

FS04 Sample Id: Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-012

Date Collected: 12.17.19 14.37

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

MAB

% Moisture:

MAB Analyst:

Date Prep: 12.18.19 15.00

Wet Weight Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	12.18.19 18.08	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	12.18.19 18.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	12.18.19 18.08		
4-Bromofluorobenzene		460-00-4	100	%	70-130	12.18.19 18.08		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: FS05

Date Received:12.18.19 12.58

Lab Sample Id: 646843-013

Date Collected: 12.17.19 15.32

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech: MAB

Analyst: MAB

Date Prep: 12.18.19 14.30

Basis:

Wet Weight

Seq Number: 3111023

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 207
 9.90
 mg/kg
 12.18.19 19.16
 1

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:

DTH

Analyst: DTH

Date Prep: 12.18.19 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	12.18.19 18.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Total GRO-DRO	PHC628	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Total TPH	PHC635	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	127	%	70-135	12.18.19 18.00		
o-Terphenyl		84-15-1	140	%	70-135	12.18.19 18.00	**	



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **FS05** Matrix: Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-013 Date Collected: 12.17.19 15.32 Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB % Moisture:

MAB Analyst:

Date Prep: 12.18.19 15.00

Wet Weight Basis:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	12.18.19 18.25	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	12.18.19 18.25	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	101	%	70-130	12.18.19 18.25		
1,4-Difluorobenzene		540-36-3	101	%	70-130	12.18.19 18.25		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **FS06** Matrix:

Result

Cas Number

16887-00-6

Date Received:12.18.19 12.58

Lab Sample Id: 646843-014

Date Collected: 12.17.19 15.36

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

Parameter

Chloride

MAB

382

Units

mg/kg

70-135

Wet Weight

Analyst: Seq Number: 3111023

MAB

Date Prep: 12.18.19 14.30

9.98

RL

Basis:

Dil

1

Flag

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Analysis Date

12.18.19 19.22

% Moisture:

Tech: Analyst:

DTH DTH

Date Prep: 12.18.19 15.00

115

Basis: Wet Weight

12.18.19 18.00

Seq Number: 3111059

o-Terphenyl

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3		mg/kg	12.18.19 18.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Total GRO-DRO	PHC628	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Total TPH	PHC635	< 50.3	50.3		mg/kg	12.18.19 18.00	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	110	%	70-135	12.18.19 18.00		

84-15-1



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS06 Matrix: Soil Date Received:12.18.19 12.58

Lab Sample Id: 646843-014 Date Collected: 12.17.19 15.36 Sample Depth: 10 ft

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

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 12.18.19 15.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	12.18.19 18.43	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 18.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	70-130	12.18.19 18.43		
4-Bromofluorobenzene		460-00-4	103	%	70-130	12.18.19 18.43		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: FS07

Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-015

Date Collected: 12.17.19 15.53

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst: MAB

Date Prep:

12.18.19 15.00 Basis:

Wet Weight

Seq Number: 3111033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	9.98	mg/kg	12.18.19 19.57		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:
Analyst:

DTH DTH

Date Prep: 12.18.19 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.1	50.1		mg/kg	12.18.19 18.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	12.18.19 18.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	12.18.19 18.20	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	12.18.19 18.20	U	1
Total TPH	PHC635	< 50.1	50.1		mg/kg	12.18.19 18.20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	12.18.19 18.20		
o-Terphenyl		84-15-1	106	%	70-135	12.18.19 18.20		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS07 Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-015

Matrix: Soil
Date Collected: 12.17.19 15.53

12.18.19 15.00

Sample Depth:10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Wet Weight

Tech: MAB

% Moisture:

Basis:

Analyst: MAB Seq Number: 3111022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
Toluene	108-88-3	< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399	mg/kg	12.18.19 19.00	U	1
o-Xylene	95-47-6	< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
Total BTEX		< 0.00200	0.00200	mg/kg	12.18.19 19.00	U	1
			%				

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.18.19 19.00	
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.18.19 19.00	

Date Prep:



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **FS08** Lab Sample Id: 646843-016

Soil

Date Received:12.18.19 12.58

Date Collected: 12.17.19 15.57

Sample Depth: 10 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

% Moisture:

Tech: MAB

MAB Analyst:

Date Prep: 12.18.19 15.00 Basis:

Wet Weight

Seq Number: 3111033

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil Chloride 16887-00-6 453 10.0 12.18.19 20.15 mg/kg 1

Matrix:

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech:

Analyst:

DTH DTH

Date Prep: 12.18.19 15.00 Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9		mg/kg	12.18.19 18.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9		mg/kg	12.18.19 18.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9		mg/kg	12.18.19 18.20	U	1
Total GRO-DRO	PHC628	<49.9	49.9		mg/kg	12.18.19 18.20	U	1
Total TPH	PHC635	<49.9	49.9		mg/kg	12.18.19 18.20	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	106	%	70-135	12.18.19 18.20		
o-Terphenyl		84-15-1	112	%	70-135	12.18.19 18.20		



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS08 Matrix: Soil

Date Received:12.18.19 12.58

Lab Sample Id: 646843-016

Date Collected: 12.17.19 15.57

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moistu

12.18.19 15.00

% Moisture:

Analyst: MAB

B Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
m,p-Xylenes	179601-23-1	< 0.00395	0.00395		mg/kg	12.18.19 19.18	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	12.18.19 19.18	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	101	%	70-130	12.18.19 19.18		
1,4-Difluorobenzene		540-36-3	98	%	70-130	12.18.19 19.18		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **FS09**

Matrix:

Date Received:12.18.19 12.58

Lab Sample Id: 646843-017

Date Collected: 12.17.19 16.09

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

% Moisture:

Analyst:

MAB

Date Prep: 12.18.19 15.00 Basis:

Wet Weight

Seq Number: 3111033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	727	9.98	ma/ka	12 18 19 20 21		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Tech: Analyst: DTH DTH

12.18.19 15.00 Date Prep:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2		mg/kg	12.18.19 18.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	12.18.19 18.40		
o-Terphenyl		84-15-1	103	%	70-135	12.18.19 18.40		



Lab Sample Id: 646843-017

Certificate of Analytical Results 646843

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: FS09 Matrix: Soil

Date Collected: 12.17.19 16.09

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Date Received:12.18.19 12.58

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.18.19 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	12.18.19 19.35	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	12.18.19 19.35	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	108	%	70-130	12.18.19 19.35		
1,4-Difluorobenzene		540-36-3	102	%	70-130	12.18.19 19.35		



LT Environmental, Inc., Arvada, CO

JRU 34

Soil

Sample Id: **FS10**

Matrix:

Result

Date Received:12.18.19 12.58

Lab Sample Id: 646843-018

Date Collected: 12.17.19 16.11

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P % Moisture:

Tech:

Parameter

MAB

Wet Weight

Analyst:

MAB

Date Prep: 12.18.19 15.00 Basis:

Chloride

Seq Number: 3111033

16887-00-6

Cas Number

RL739 9.94

12.18.19 20.27 mg/kg

Flag Dil 1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

% Moisture:

Basis:

Analysis Date

Tech: Analyst:

DTH DTH

Date Prep: 12.18.19 15.00

Units

Wet Weight

Seq Number: 3111059

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	12.18.19 18.40	U	1
Surrogate		Cas Number	% D	Units	Limits	Analysis Date	Flag	

Surrogate Recovery 1-Chlorooctane 111-85-3 70-135 121 % 12.18.19 18.40 122 o-Terphenyl 84-15-1 % 70-135 12.18.19 18.40

Wet Weight



Certificate of Analytical Results 646843

LT Environmental, Inc., Arvada, CO

JRU 34

12.18.19 15.00

Sample Id: **FS10** Matrix: Soil Date Received:12.18.19 12.58

Lab Sample Id: 646843-018 Date Collected: 12.17.19 16.11 Sample Depth: 10 ft

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

Date Prep:

% Moisture:

Basis:

Tech: MAB MAB

Seq Number: 3111022

Analyst:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
m,p-Xylenes	179601-23-1	< 0.00400	0.00400		mg/kg	12.18.19 19.52	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	12.18.19 19.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	12.18.19 19.52		
4-Bromofluorobenzene		460-00-4	106	%	70-130	12.18.19 19.52		



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.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

^{**} Surrogate recovered outside laboratory control limit.

Prep Method: E300P

Date Prep: 12.18.19



OC Summary 646843

LT Environmental, Inc.

JRU 34

Analytical Method: Chloride by EPA 300

Seq Number: 3111023 Matrix: Solid

LCS Sample Id: 7692734-1-BKS LCSD Sample Id: 7692734-1-BSD MB Sample Id: 7692734-1-BLK

%RP LCS RPD MB Spike LCS Limits Units **Analysis** LCSD LCSD Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec 12.18.19 16:16 Chloride <10.0 250 256 102 259 104 90-110 1 20 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: E300P Seq Number: 3111033 Matrix: Solid Date Prep: 12.18.19

MB Sample Id: 7692767-1-BLK LCS Sample Id: 7692767-1-BKS LCSD Sample Id: 7692767-1-BSD

RPD MB Spike LCS LCS %RP Units **Analysis** LCSD LCSD Limits Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec Chloride <10.0 250 255 102 255 102 90-110 0 20 12.18.19 19:45 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: E300P Seq Number: 3111023 Matrix: Soil Date Prep: 12.18.19

Parent Sample Id: 646770-001 MS Sample Id: 646770-001 S MSD Sample Id: 646770-001 SD

RPD MS %RP MS **Parent** Spike **MSD MSD** Limits Units Analysis Flag **Parameter** Result %Rec D Limit Date Result Amount Result %Rec 12.18.19 16:40 Chloride 36.5 199 259 112 259 90-110 0 20 X 111 mg/kg

Chloride by EPA 300 **Analytical Method:**

Prep Method: E300P Seq Number: 3111023 Matrix: Soil Date Prep: 12.18.19 Parent Sample Id: 646843-005 MS Sample Id: 646843-005 S MSD Sample Id: 646843-005 SD

RPD MS MS MSD %RP Units Parent Spike MSD Limits **Analysis** Flag **Parameter** Result %Rec D Limit Date Result Amount Result %Rec 12.18.19 18:12 Chloride 4590 200 5050 230 5050 90-110 0 20 231 X mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: 3111033 Matrix: Soil Date Prep: 12.18.19

Parent Sample Id: 646843-015 MS Sample Id: 646843-015 S MSD Sample Id: 646843-015 SD

RPD **Parent** Spike MS MS **MSD** Limits %RP Units **Analysis MSD** Flag **Parameter** Limit Result %Rec D Date Result Amount Result %Rec 12.18.19 20:03 Chloride 123 200 353 115 354 114 90-110 0 20 mg/kg X

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

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

 $Log\ Diff. = Log(Sample\ Duplicate)\ -\ Log(Original\ Sample)$

LCS = Laboratory Control Sample A = Parent Result

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

Prep Method: E300P

Flag

Prep Method: E300P



OC Summary 646843

LT Environmental, Inc.

JRU 34

Analytical Method: Chloride by EPA 300

Seq Number: 3111033 Matrix: Soil Date Prep: 12.18.19

MSD Sample Id: 646846-007 SD MS Sample Id: 646846-007 S Parent Sample Id: 646846-007

MS RPD Parent Spike MS Limits %RP Units Analysis **MSD MSD** Flag **Parameter** Result Result %Rec D Limit Date Amount Result %Rec 4070 12.18.19 21:59 Chloride 200 4150 40 4140 35 90-110 0 20 mg/kg X

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3111041 Matrix: Solid 12.18.19 Date Prep:

MB Sample Id: 7692768-1-BLK LCS Sample Id: 7692768-1-BKS LCSD Sample Id: 7692768-1-BSD

RPD MB Spike LCS %RP Units Analysis LCSD LCSD Limits Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec Gasoline Range Hydrocarbons (GRO) < 50.0 1000 941 94 921 92 70-135 2 35 12.18.19 12:10 mg/kg Diesel Range Organics (DRO) 1000 820 82 791 79 70-135 4 35 12.18.19 12:10 < 50.0 mg/kg

MB MB LCS LCS LCSD LCSD Limits Units **Analysis** Surrogate %Rec Flag %Rec Flag Flag %Rec Date 12.18.19 12:10 1-Chlorooctane 85 94 106 70-135 % 87 93 91 70-135 12.18.19 12:10 o-Terphenyl %

TPH by SW8015 Mod **Analytical Method:** Prep Method: SW8015P

Seq Number: 3111059 Matrix: Solid Date Prep: 12.18.19

LCS Sample Id: 7692774-1-BKS LCSD Sample Id: 7692774-1-BSD MB Sample Id: 7692774-1-BLK

LCS LCS %RP RPD MB Units Analysis Spike LCSD LCSD Limits **Parameter** Result Amount Result %Rec D Limit Date Result %Rec Gasoline Range Hydrocarbons (GRO) 5 35 12.18.19 17:01 < 50.0 1000 1080 108 1130 113 70-135 mg/kg 1000 1110 1190 119 70-135 7 35 12.18.19 17:01 Diesel Range Organics (DRO) < 50.0 111 mg/kg

MB MBLCS LCS LCSD LCSD Limits Units **Analysis Surrogate** Flag %Rec Flag %Rec Flag Date %Rec 12.18.19 17:01 125 129 70-135 1-Chlorooctane 116 % 12.18.19 17:01 o-Terphenyl 127 122 135 70-135 %

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P 3111041 Date Prep: 12.18.19

MB Sample Id: 7692768-1-BLK

MB Units Analysis Flag **Parameter** Result Date

Motor Oil Range Hydrocarbons (MRO) 12.18.19 11:51 < 50.0 mg/kg

Matrix: Solid

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

Seq Number:

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

 $Log\ Diff. = Log(Sample\ Duplicate)\ -\ Log(Original\ Sample)$

LCS = Laboratory Control Sample A = Parent Result

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

Flag

Prep Method: SW8015P



OC Summary 646843

LT Environmental, Inc.

JRU 34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3111059 Matrix: Solid Date Prep: 12.18.19

MB Sample Id: 7692774-1-BLK

MB Units **Analysis** Flag **Parameter** Result Date

Motor Oil Range Hydrocarbons (MRO) < 50.0 12.18.19 17:01 mg/kg

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3111041 Matrix: Water Date Prep: 12.18.19

Parent Sample Id: 646770-001 MS Sample Id: 646770-001 S MSD Sample Id: 646770-001 SD

RPD MS MS %RP Units **Analysis Parent** Spike **MSD MSD** Limits Flag **Parameter** Result Amount Result %Rec D Limit Date Result %Rec Gasoline Range Hydrocarbons (GRO) <49.8 995 903 91 1000 100 70-135 10 35 12.18.19 12:30 mg/kg Diesel Range Organics (DRO) <49.8 995 777 78 885 70-135 13 35 12.18.19 12:30 89 mg/kg

MS MS MSD MSD Limits Units **Analysis Surrogate** Flag %Rec Flag Date %Rec 12.18.19 12:30 1-Chlorooctane 113 111 70-135 % 100 111 70-135 12.18.19 12:30 o-Terphenyl %

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Seq Number: 3111059 Matrix: Soil Date Prep: 12.18.19

MS Sample Id: 646843-012 S MSD Sample Id: 646843-012 SD Parent Sample Id: 646843-012

MS MS %RP RPD **Parent** Limits Units **Analysis** Spike **MSD** MSD **Parameter** Result Amount Result %Rec \mathbf{D} Limit Date Result %Rec Gasoline Range Hydrocarbons (GRO) < 50.2 819 82 889 35 12.18.19 17:41 1000 88 70-135 8 mg/kg < 50.2 1000 72 70-135 2 35 12.18.19 17:41 Diesel Range Organics (DRO) 723 738 73 mg/kg

MSMS MSD **MSD** Limits Units **Analysis Surrogate** %Rec Flag Flag Date %Rec 12.18.19 17:41 90 115 70-135 1-Chlorooctane % 12.18.19 17:41 o-Terphenyl 91 99 70-135 %

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result

= MS/LCS Result

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

Flag

Flag

Flag



OC Summary 646843

LT Environmental, Inc.

JRU 34

Prep Method: SW5030B Analytical Method: BTEX by EPA 8021B Seq Number: 3111020 Matrix: Solid Date Prep: 12.18.19 LCSD Sample Id: 7692736-1-BSD

LCS Sample Id: 7692736-1-BKS 7692736-1-BLK MB Sample Id:

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.0939	94	0.0936	94	70-130	0	35	mg/kg	12.18.19 13:06
Toluene	< 0.00200	0.100	0.0973	97	0.0972	97	70-130	0	35	mg/kg	12.18.19 13:06
Ethylbenzene	< 0.00200	0.100	0.0969	97	0.0968	97	71-129	0	35	mg/kg	12.18.19 13:06
m,p-Xylenes	< 0.00400	0.200	0.207	104	0.206	103	70-135	0	35	mg/kg	12.18.19 13:06
o-Xylene	< 0.00200	0.100	0.104	104	0.104	104	71-133	0	35	mg/kg	12.18.19 13:06
C	MB	MB	L	cs I	CS	LCSE	LCSI) Li	mits	Units	Analysis

Surrogate Flag Date %Rec Flag %Rec Flag %Rec 1,4-Difluorobenzene 103 102 102 70-130 12.18.19 13:06 % 12.18.19 13:06 4-Bromofluorobenzene 116 118 117 70-130 %

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B Seq Number: 3111022 Matrix: Solid Date Prep: 12.18.19

LCS Sample Id: 7692770-1-BKS LCSD Sample Id: 7692770-1-BSD MB Sample Id: 7692770-1-BLK

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.0969	97	0.0885	89	70-130	9	35	mg/kg	12.18.19 16:24
Toluene	< 0.00200	0.100	0.0981	98	0.0896	90	70-130	9	35	mg/kg	12.18.19 16:24
Ethylbenzene	< 0.00200	0.100	0.0973	97	0.0889	89	71-129	9	35	mg/kg	12.18.19 16:24
m,p-Xylenes	< 0.00400	0.200	0.202	101	0.184	92	70-135	9	35	mg/kg	12.18.19 16:24
o-Xylene	< 0.00200	0.100	0.0981	98	0.0896	90	71-133	9	35	mg/kg	12.18.19 16:24

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		100		97		70-130	%	12.18.19 16:24
4-Bromofluorobenzene	96		100		97		70-130	%	12.18.19 16:24

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B Seq Number: 3111020 Matrix: Soil Date Prep: 12.18.19

Parent Sample Id: MS Sample Id: 646770-001 S MSD Sample Id: 646770-001 SD 646770-001

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date
Benzene	< 0.00200	0.100	0.0808	81	0.0991	99	70-130	20	35	mg/kg	12.18.19 13:44
Toluene	< 0.00200	0.100	0.0832	83	0.103	103	70-130	21	35	mg/kg	12.18.19 13:44
Ethylbenzene	< 0.00200	0.100	0.0822	82	0.102	102	71-129	21	35	mg/kg	12.18.19 13:44
m,p-Xylenes	< 0.00400	0.200	0.174	87	0.217	109	70-135	22	35	mg/kg	12.18.19 13:44
o-Xylene	< 0.00200	0.100	0.0874	87	0.110	110	71-133	23	35	mg/kg	12.18.19 13:44

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.18.19 13:44
4-Bromofluorobenzene	120		125		70-130	%	12.18.19 13:44

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample A = Parent Result

= MS/LCS Result

E = MSD/LCSD Result

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

Prep Method: SW5030B



QC Summary 646843

LT Environmental, Inc.

JRU 34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111022 Matrix: Soil Date Prep: 12.18.19

Seq 1 turneer.	0111022				2011				Duterr	CP. 12.1		
Parent Sample Id:	646843-012		MS Sa	mple Id:	646843-0	12 S		MS	D Sample	e Id: 646	843-012 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RP D	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0940	94	0.0942	94	70-130	0	35	mg/kg	12.18.19 16:59	
Toluene	< 0.00200	0.100	0.0948	95	0.0933	93	70-130	2	35	mg/kg	12.18.19 16:59	
Ethylbenzene	< 0.00200	0.100	0.0935	94	0.0907	91	71-129	3	35	mg/kg	12.18.19 16:59	
m,p-Xylenes	< 0.000754	0.200	0.195	98	0.188	94	70-135	4	35	mg/kg	12.18.19 16:59	
o-Xylene	< 0.00200	0.100	0.0953	95	0.0923	92	71-133	3	35	mg/kg	12.18.19 16:59	
Surrogate				AS Rec	MS Flag	MSD %Red			imits	Units	Analysis Date	
1,4-Difluorobenzene			1	01		102		70)-130	%	12.18.19 16:59	
4-Bromofluorobenzene	•		1	.05		102		70)-130	%	12.18.19 16:59	

City, State ZIP:

Midland, TX 79705

3300 North A Street LT Environmental, Inc.

Permian Office

Company Name: Bill to: (if different)

Program: UST/PST PRP Brownfields RR

Superfund

www.xenco.com

Page

of

Work Order Comments

(432) 236-3849

Email: smith@ltenv.com, dmoir@ltenv.com

City, State ZIP:

Carlsbad, NM 88220 3104 E Greene St XTO Energy, Inc. Kyle Littrell

Deliverables: EDD Reporting:Level - Level -State of Project:

ADaPT PST/UST

> TR中 Other:

> > LeveHV

Address:

Address:

Company Name: Project Manager:

Dan Moir

Chain of Custody

Work Order No: 1940 343

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334

Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Atlanta, GA (770) 449-8800

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		4 2	1418/14 12:582		Luc	CK	· Jakella
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	ignature)	Received by: (Signature)	nature)	Relinquished by: (Signature)
	are due to circumstances beyond the control enforced unless previously negotiated.	ed by the client if such losses are due to circu analyzed. These terms will be enforced unless	any losses or expenses incurre submitted to Xenco, but not	e any responsibility for a rge of \$5 for each sample	les and shall not assum each project and a cha	ant and relinquistilliers only for the cost of samp \$75.00 will be applied to	Notice: Signature of this document and reiniquismineric or samples consenses a range per 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 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 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 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 of service.
	ndard terms and conditions	Chock in the contract of appeller constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	om client company to Xenco, it	valid purchase order fro	f complex constitutes a		
1631 / 245.1 / 7470 / 7471 : Hg	3	Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Sb As Ba Be	8RCRA 13PPM Texas 11 Al 3	8RC	200.8 / 6020: ! Metal(s) to be an	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
II Sn U V Zn	In Mo Ni K Se Ag SiO2 Na Sr TI Sn U V Zn	C C C C E				(F004
			<- <- <-	0	H		200
				6	1402	()	FSO.
				7 0-10	1347	(V)	DWO
				2 0-10	1242	S	SOMS
				01-0 88	1239	()	LOMO
				0-10	1001	(V)	SOMS
				56 0-10	0956	()	SW05
				35 0-10	0935	S	PWOH
				01-0	0920	S	D WO3
			X	01-0	12/17/19 0858	N	SW02
Sample Comments	Sam		Numb TPH (I BTEX	le Depth	Date Time Sampled Sampled	on Matrix	Sample Identification
			EPA (Total Containers:	Yes (10) N/A	Sample Custody Seals:
lab. if received by 4:30pm	lab. if		301		Correction Factor.	Yes No N/A	Cooler Custody Seals:
TAT starts the day received by the	TAT start		5) 8021	15.4	T-NW	es No	Received Intact:
)	neter ID	Thermometer ID	3.0	Temperature (°C):
			rs	Wet Ice: Yes No	Yes No We	Temp Blank:	SAMPLE RECEIPT
				Due Date:		Fatima Smith	Sampler's Name:
				Rush: 24 hrs		2RP-5553	PO#
				Routine:		12919156	Project Number:
		ANALYSIS REQUEST		Turn Around		034	Project Name:
Work Order Notes	Wal			Lindii, Ioiiiidi Wisoiid		(432) 230-3048	Phone: (432)

5 3 1 9 8 Z



City, State ZIP:

3300 North A Street Midland, TX 79705 (432) 236-3849

LT Environmental, Inc.,

Permian Office

Bill to: (if different)

Company Name:

XTO Energy, Inc. Kyle Littrell

Program: UST/PST PRP Brownfields RRC

Superfund

www.xenco.com

Page

of

Work Order Comments

State of Project:

3104 E Greene St

Email: smith@ltenv.com, dmoir@ltenv.com

Deliverables: EDD Reporting:Level ₩ Level ₩

ADaPT PST/UST

> TR中 Other:

LeveHv

City, State ZIP:

Carlsbad, NM 88220

Project Manager: Company Name

Dan Moir

Chain of Custody

Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296

Atlanta, GA (770) 449-8800

Project Name:	CKC GI			I	Turn Around					ANA	ANALYSIS REQUEST	DEST					Work Order Notes	
Project Number:	01291	19156	6	Routine:	tine:									-				
PO#:	2RP-	55	5553	Rus	Rush: 24 hrs										1			
Sampler's Name:	Fa	Fatima Smith	nith	Due	Due Date:													
SAMPLE RECEIPT		Temp Blank:	Yes No	Wet Ice:	Yes M													
Temperature (°C):			DOI	Thermometer ID	4	ners												
Received Intact:	Yes	No C	to	\		tair		21)	0.0)									
Cooler Custody Seals:	Yes No.	MA	Correction Factor:	Factor:		Con	15)	=802	A 30									
Sample Custody Seals:	Yes No	N/A	Total Containers:	ainers:		of	A 80	PA 0	(EP							TAT	TAT starts the day recevied by the lab, if received by 4:30pm	9
			Dato	Timo		ber	EPA	(EF	ide								and a society of the society	
Sample Identification		Matrix	Sampled	Sampled	Depth	Numl	TPH (I	втех	Chlori								Sample Comments	
FS03		N	12/17/19	1428	ō	-	X	X	X									
FSOY		(7)		1437	0		_	_										
-S05		S		1532	ō													
FSOL		S		1536	0	_												
FS07		S		1553	10	-			and an artist									
F508		0		1557	0													
FS09		()		1609	0													
150		(/)	<-	1611	0	<-	<-	<:	(-									
		+																
		2	1															
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	0 200.8 / 6020: and Metal(s) to be	20: be ana	8RCRA llyzed TCI	RA 13PPM TCLP / SPLP	RA 13PPM Texas 11 AI TCLP / SPLP 6010: 8RCRA	ll col	Al Sb As Ba Be B CRA Sb As Ba Be	Ba Be s Ba B		d Ca Cr (Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Pb Mg N No Ni Se	In Mo N	U K S	e Ag	SiO2 Na S 1631 / 24	Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn Mo Ni Se Ag Ti U 1631/245.1/7470/7471:Hg	
otice: 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 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 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.	cument and relinquis ble only for the cost le of \$75.00 will be ap	hment of of sample oplied to e	samples cons s and shall no each project a	stitutes a valid pot assume any r	ourchase order fr esponsibility for \$5 for each samp	om client any loss le submit	t compar es or exp tted to X	ny to Xer penses ir enco, bu	ico, its a icurred I t not and	ffiliates and su by the client if a lyzed. These t	bcontractors. It such losses are erms will be enfo	assigns standard terms and conditions due to circumstances beyond the contro orced unless previously negotiated.	ndard term mstances b s previously	is and co eyond the	nditions e control ed.			
Relinquished by: (Signature)	Signature)		Received	Received by: (Signature)	ıre)		Date/Time	ime		Relinquishe	Relinquished by: (Signature)	ature)	Rec	ceived I	by: (Si	Received by: (Signature)	Date/Time	
fate you		E		7		12/18/19	19	12:53	4 2									
									O)									
																		_

Work Order No: 1940842

Revised Date 101419 Rev. 2019.1



XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Work Order #: 646843

Date/ Time Received: 12/18/2019 12:58:00 PM

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

Temperature Measuring device used: T-NM-007

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

* Must be o	completed for after-hours de	elivery of samples prior to pla	acing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Elizabeth McClellan	Date: 12/18/2019
	Checklist reviewed by:	Jessica Vramer Jessica Kramer	Date: 12/19/2019

Environment Testing

Certificate of Analysis Summary 671092

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Project Id:

💸 eurofins

012919156

Date Received in Lab: Wed 08.26.2020 12:55

Contact:

Project Location:

Dan Moir **Eddy County** **Report Date:** 08.31.2020 10:03

Project Manager: Jessica Kramer

Lab Id:	671092-0	01	671092-00)2	671092-0	003	671092-0	004	671092-0	05	
Field Id:	SW09		SW10		SW11		SW12		SW13		
Depth:	0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft		
Matrix:	SOIL		SOIL	SOIL			SOIL		SOIL		
Sampled:	08.26.2020 09:23		08.26.2020 (9:58	08.26.2020	10:00	08.26.2020	10:21	08.26.2020 11:28		
Extracted:	08.27.2020	12:30	08.27.2020 1	2:30	08.27.2020	12:30	08.27.2020	12:30	08.27.2020	12:30	
Analyzed:	08.27.2020	15:30	08.27.2020 1	5:50	08.27.2020	16:10	08.27.2020	16:31	08.27.2020	16:51	
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
	< 0.00398	0.00398	< 0.00403	0.00403	< 0.00399	0.00399	< 0.00397	0.00397	< 0.00403	0.00403	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
	< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Extracted:	08.26.2020	16:54	08.26.2020 1	6:54	08.27.2020	13:02	08.27.2020	13:02	08.27.2020	13:02	
Analyzed:	08.27.2020	03:09	08.27.2020 (3:14	08.27.2020	13:05	08.27.2020	13:22	08.27.2020	13:27	
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
	295	10.0	152	9.90	85.2	9.92	54.3	9.92	302	10.0	
Extracted:	08.26.2020	16:30	08.26.2020 1	6:30	08.26.2020	16:30	08.26.2020	16:30	08.26.2020	16:30	
Analyzed:	08.26.2020	22:27	08.26.2020 2	23:28	08.26.2020	23:48	08.27.2020	00:09	08.27.2020	00:29	
Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
	< 50.2	50.2	<50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
	<50.2	50.2	<50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
	< 50.2	50.2	<50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
	< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Analyzed:	Field Id: SW09 Depth: 0-4 ft Matrix: SOIL Sampled: 08.26.2020 Extracted: 08.27.2020 Analyzed: 08.27.2020 Units/RL: mg/kg <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 Extracted: 08.26.2020 Analyzed: 08.27.2020 Units/RL: mg/kg 295 Extracted: 08.26.2020 Analyzed: 08.26.2020 Analyzed: 08.26.2020 Units/RL: mg/kg <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199 <0.00199	Field Id: SW09 Depth: 0-4 ft Matrix: SOIL Sampled: 08.26.2020 09:23 Extracted: 08.27.2020 12:30 Analyzed: 08.27.2020 15:30 Units/RL: mg/kg RL <0.00199	Field Id: SW09 SW10 Depth: 0-4 ft 0-4 ft Matrix: SOIL SOIL Sampled: 08.26.2020 09:23 08.26.2020 0 Extracted: 08.27.2020 12:30 08.27.2020 1 Analyzed: 08.27.2020 15:30 08.27.2020 1 Units/RL: mg/kg RL mg/kg Vo.00199 0.00199 <0.00202	Field Id: SW09 SW10 Depth: 0-4 ft 0-4 ft Matrix: SOIL SOIL Sampled: 08.26.2020 09:23 08.26.2020 09:58 Extracted: 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 15:50 Analyzed: 08.27.2020 15:30 08.27.2020 15:50 08.27.2020 15:50 Units/RL: mg/kg RL mg/kg RL < 0.00199	Field Id: SW09 SW10 SW11 Depth: 0-4 ft 0-4 ft 0-4 ft Matrix: SOIL SOIL SOIL SOIL Sampled: 08.26.2020 09:23 08.26.2020 09:58 08.26.2020 Extracted: 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 Analyzed: 08.27.2020 15:30 08.27.2020 15:50 08.27.2020 Units/RL: mg/kg RL mg/kg RL mg/kg < 0.00199	Field Id: SW09 SW10 SW11 Depth: 0-4 ft 0-4 ft 0-4 ft Matrix: SOIL SOIL SOIL Sampled: 08.26.2020 09:23 08.26.2020 09:58 08.26.2020 10:00 Extracted: 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 16:10 Units/RL: mg/kg RL Mg/kg Au Mg/kg Mg/kg Mg/kg	Field Id: SW09 SW10 SW11 SW12 Depth: 0-4 ft 0-4 ft 0-4 ft 0-4 ft 0-4 ft Matrix: SOIL SOIL SOIL SOIL SOIL SOIL Sampled: 08.26.2020 09:23 08.26.2020 09:58 08.26.2020 10:00 08.26.2020 Extracted: 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 12:30 08.27.2020 16:10 08.27.2020 Analyzed: 08.27.2020 15:30 08.27.2020 15:50 08.27.2020 16:10 08.27.2020 Units/RL: mg/kg RL mg/kg RL mg/kg RL mg/kg <0.00199	Field Id: SW09 / Depth: SW10 / O-4 ft / O-4	Field Id: SW09 SW10 SW11 SW12 SW13 Depth: 0.4 ft 0.8 c27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 08.27.2020 15:30 </th <th>Field Id: SW09 SW10 SW11 SW12 SW13 O-4 ft O-2 ft C-2 ft</th>	Field Id: SW09 SW10 SW11 SW12 SW13 O-4 ft O-2 ft C-2 ft

50.0

BRL - Below Reporting Limit

Total TPH

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

< 50.2

50.2

Jessica Weamer

50.1

< 50.1

< 50.0

< 50.2

50.2

50.2

< 50.2

Certificate of Analysis Summary 671092

LT Environmental, Inc., Arvada, CO

Project Name: JRU 34

Project Id:

012919156

Date Received in Lab: Wed 08.26.2020 12:55

Contact: Project Location:

Dan Moir **Eddy County** **Report Date:** 09.24.2020 10:32

Project Manager: Jessica Kramer

	Lab Id:	671092-0	001	671092-0	02	671092-0	003	671092-0	004	671092-0	005	
Analysis Requested	Field Id:	SW10		SW11		SW12		SW13		SW14		
Analysis Requesieu	Depth:	0-4 ft										
	Matrix:	SOIL										
	Sampled:	08.26.2020	09:23	08.26.2020	09:58	08.26.2020	10:00	08.26.2020	10:21	08.26.2020	11:28	
BTEX by EPA 8021B	Extracted:	08.27.2020	12:30	08.27.2020	12:30	08.27.2020	12:30	08.27.2020	12:30	08.27.2020	12:30	
	Analyzed:	08.27.2020	15:30	08.27.2020	15:50	08.27.2020	16:10	08.27.2020	16:31	08.27.2020	16:51	
	Units/RL:	mg/kg	RL									
Benzene		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Toluene		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Ethylbenzene		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
m,p-Xylenes		< 0.00398	0.00398	< 0.00403	0.00403	< 0.00399	0.00399	< 0.00397	0.00397	< 0.00403	0.00403	
o-Xylene		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Total Xylenes		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Total BTEX		< 0.00199	0.00199	< 0.00202	0.00202	< 0.00200	0.00200	< 0.00198	0.00198	< 0.00202	0.00202	
Chloride by EPA 300	Extracted:	08.26.2020	16:54	08.26.2020	16:54	08.27.2020	13:02	08.27.2020	13:02	08.27.2020	13:02	
	Analyzed:	08.27.2020	03:09	08.27.2020	03:14	08.27.2020	13:05	08.27.2020	13:22	08.27.2020	13:27	
	Units/RL:	mg/kg	RL									
Chloride		295	10.0	152	9.90	85.2	9.92	54.3	9.92	302	10.0	
TPH by SW8015 Mod	Extracted:	08.26.2020	16:30	08.26.2020	16:30	08.26.2020	16:30	08.26.2020	16:30	08.26.2020	16:30	
	Analyzed:	08.26.2020	22:27	08.26.2020	23:28	08.26.2020	23:48	08.27.2020	00:09	08.27.2020	00:29	
	Units/RL:	mg/kg	RL									
Gasoline Range Hydrocarbons (GRO)		< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
Diesel Range Organics (DRO)		< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	< 50.1	50.1	
Motor Oil Range Hydrocarbons (MRO)		< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
Total GRO-DRO		< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	<50.1	50.1	
Total TPH		< 50.2	50.2	< 50.0	50.0	< 50.2	50.2	< 50.2	50.2	< 50.1	50.1	

BRL - Below Reporting Limit

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

Jessica Weamer



Analytical Report 671092

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU 34 012919156 09.24.2020

Collected By: Client

1089 N Canal Street Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483)



09.24.2020

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

Reference: Eurofins Xenco, LLC Report No(s): 671092

JRU 34

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 671092. 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 Eurofins Xenco, LLC. 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. 671092 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 671092

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW10	S	08.26.2020 09:23	0 - 4 ft	671092-001
SW11	S	08.26.2020 09:58	0 - 4 ft	671092-002
SW12	S	08.26.2020 10:00	0 - 4 ft	671092-003
SW13	S	08.26.2020 10:21	0 - 4 ft	671092-004
SW14	S	08.26.2020 11:28	0 - 4 ft	671092-005

Page 115 of 133

CASE NARRATIVE

eurofins Environment Testing

Client Name: LT Environmental, Inc.

Project Name: JRU 34

 Project ID:
 012919156
 Report Date:
 09.24.2020

 Work Order Number(s):
 671092
 Date Received:
 08.26.2020

Sample receipt non conformances and comments:

V1.001 Revision - Corrected sample IDs

Sample receipt non conformances and comments per sample:

None

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW10 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-001 Date Collected: 08.26.2020 09:23 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

% Moisture:

Analyst: MAB Date Prep: 08.26.2020 16:54 Basis: Wet Weight

Seq Number: 3135675

Tech:

MAB

 Parameter
 Cas Number
 Result
 RL
 Units
 Analysis Date
 Flag
 Dil

 Chloride
 16887-00-6
 295
 10.0
 mg/kg
 08.27.2020 03:09
 1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

84-15-1

Analyst: DTH Date Prep: 08.26.2020 16:30 Basis: Wet Weight

Seq Number: 3135658

o-Terphenyl

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2		mg/kg	08.26.2020 22:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	08.26.2020 22:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	08.26.2020 22:27	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	08.26.2020 22:27	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	08.26.2020 22:27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	110	%	70-135	08.26.2020 22:27		

109

70-135

08.26.2020 22:27

LT Environmental, Inc., Arvada, CO

JRU 34

08.27.2020 12:30

Basis:

Wet Weight

Sample Id: SW10 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-001 Date Collected: 08.26.2020 09:23 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Date Prep:

Tech: MAB % Moisture:

Seq Number: 3135786

Analyst:

MAB

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.27.2020 15:30	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.27.2020 15:30	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.27.2020 15:30	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.27.2020 15:30	

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW11 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-002 Date Collected: 08.26.2020 09:58 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 08.26.2020 16:54 Basis: Wet Weight

Seq Number: 3135675

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	152	9.90	mg/kg	08.27.2020 03:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 08.26.2020 16:30 Basis: Wet Weight

Seq Number: 3135658

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.0	50.0		mg/kg	08.26.2020 23:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.0	50.0		mg/kg	08.26.2020 23:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.0	50.0		mg/kg	08.26.2020 23:28	U	1
Total GRO-DRO	PHC628	< 50.0	50.0		mg/kg	08.26.2020 23:28	U	1
Total TPH	PHC635	< 50.0	50.0		mg/kg	08.26.2020 23:28	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	114	%	70-135	08.26.2020 23:28		

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW11 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-002 Date Collected: 08.26.2020 09:58 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: MAB % Moisture:

460-00-4

Analyst: MAB Date Prep: 08.27.2020 12:30 Basis: Wet Weight

Seq Number: 3135786

4-Bromofluorobenzene

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	08.27.2020 15:50	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	08.27.2020 15:50	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1.4-Difluorobenzene		540-36-3	102	%	70-130	08.27.2020 15:50		

101

%

70-130

08.27.2020 15:50

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW12** Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-003 Date Collected: 08.26.2020 10:00 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

% Moisture:

% Moisture:

Tech: MAB

MAB Analyst: Date Prep: 08.27.2020 13:02 Basis: Wet Weight

Seq Number: 3135806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.2	9.92	mg/kg	08.27.2020 13:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

DTH Tech:

Analyst: DTH Basis: Wet Weight Date Prep: 08.26.2020 16:30

Seq Number: 3135658

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2		mg/kg	08.26.2020 23:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	08.26.2020 23:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	08.26.2020 23:48	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	08.26.2020 23:48	U	1
Total TPH	PHC635	<50.2	50.2		mg/kg	08.26.2020 23:48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	104	%	70-135	08.26.2020 23:48		
o-Terphenyl		84-15-1	104	%	70-135	08.26.2020 23:48		

MAB

Certificate of Analytical Results 671092

LT Environmental, Inc., Arvada, CO

JRU 34

08.27.2020 12:30

Basis:

Wet Weight

Sample Id: **SW12** Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-003 Date Collected: 08.26.2020 10:00 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: MAB % Moisture:

Analyst: Date Prep: Seq Number: 3135786

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1
Toluene	108-88-3	< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399	mg/kg	08.27.2020 16:10	U	1
o-Xylene	95-47-6	< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1
Total BTEX		< 0.00200	0.00200	mg/kg	08.27.2020 16:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.27.2020 16:10	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.27.2020 16:10	

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: **SW13** Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-004 Date Collected: 08.26.2020 10:21 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

% Moisture:

% Moisture:

MAB Tech: MAB Analyst: Date Prep: 08.27.2020 13:02 Basis: Wet Weight

Seq Number: 3135806

Result **Parameter** Cas Number RLUnits **Analysis Date** Dil Flag Chloride 16887-00-6 54.3 9.92 mg/kg 08.27.2020 13:22 1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

DTH Tech:

Analyst: DTH Basis: Wet Weight Date Prep: 08.26.2020 16:30

Seq Number: 3135658

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	< 50.2	50.2		mg/kg	08.27.2020 00:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.2	50.2		mg/kg	08.27.2020 00:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.2	50.2		mg/kg	08.27.2020 00:09	U	1
Total GRO-DRO	PHC628	< 50.2	50.2		mg/kg	08.27.2020 00:09	U	1
Total TPH	PHC635	< 50.2	50.2		mg/kg	08.27.2020 00:09	U	1
Surrogate	(Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

LT Environmental, Inc., Arvada, CO

JRU 34

08.27.2020 12:30

Basis:

Wet Weight

Sample Id: **SW13** Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-004 Date Collected: 08.26.2020 10:21 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Date Prep:

MAB % Moisture: Tech:

Seq Number: 3135786

Analyst:

MAB

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	08.27.2020 16:31	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	08.27.2020 16:31	U	1
Surrogate	Ca	as Number	% Recovery	Units	Limits	Analysis Date	Flag	



LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW14 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-005 Date Collected: 08.26.2020 11:28 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 08.27.2020 13:02 Basis: Wet Weight

Seq Number: 3135806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	302	10.0	mg/kg	08.27.2020 13:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 08.26.2020 16:30 Basis: Wet Weight

Seq Number: 3135658

Parameter	Cas Numbe	r Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1		mg/kg	08.27.2020 00:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	< 50.1	50.1		mg/kg	08.27.2020 00:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	< 50.1	50.1		mg/kg	08.27.2020 00:29	U	1
Total GRO-DRO	PHC628	< 50.1	50.1		mg/kg	08.27.2020 00:29	U	1
Total TPH	PHC635	<50.1	50.1		mg/kg	08.27.2020 00:29	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	106	%	70-135	08.27.2020 00:29		
o-Terphenyl		84-15-1	106	%	70-135	08.27.2020 00:29		

LT Environmental, Inc., Arvada, CO

JRU 34

Sample Id: SW14 Matrix: Soil Date Received:08.26.2020 12:55

Lab Sample Id: 671092-005 Date Collected: 08.26.2020 11:28 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

% Moisture:

Analyst: MAB Date Prep: 08.27.2020 12:30 Basis: Wet Weight

Seq Number: 3135786

MAB

Tech:

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	08.27.2020 16:51	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	08.27.2020 16:51	U	1
Surrogate	Ca	s Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.27.2020 16:51	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.27.2020 16:51	



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.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample BLK Method Blank

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

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

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

^{**} Surrogate recovered outside laboratory control limit.

QC Summary 671092

LT Environmental, Inc.

JRU 34

E300P Analytical Method: Chloride by EPA 300 Prep Method: 08.26.2020 Seg Number: 3135675 Matrix: Solid Date Prep: 7710238-1-BLK LCS Sample Id: 7710238-1-BKS LCSD Sample Id: 7710238-1-BSD MB Sample Id: RPD MB Spike LCS LCS Limits %RPD Units Analysis LCSD LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date Chloride <10.0 250 262 105 265 90-110 20 08.27.2020 00:33 106 1 mg/kg E300P Analytical Method: Chloride by EPA 300 Prep Method: Seq Number: 3135806 Matrix: Solid Date Prep: 08.27.2020 7710280-1-BKS 7710280-1-BLK LCS Sample Id: LCSD Sample Id: 7710280-1-BSD MB Sample Id: MB Spike LCS LCS LCSD LCSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result 20 08.27.2020 12:54 Chloride <10.0 250 263 105 265 106 90-110 1 mg/kg E300P Analytical Method: Chloride by EPA 300 Prep Method: Seq Number: 3135675 Matrix: Soil Date Prep: 08.26.2020 MS Sample Id: 671099-001 S MSD Sample Id: 671099-001 SD Parent Sample Id: 671099-001 Spike **RPD Parent** MS MS %RPD Units MSD **MSD** Limite Analysis Flag **Parameter** Result Result %Rec Limit Date Amount Result %Rec Chloride 3 20 08.27.2020 00:49 45.6 200 237 96 231 93 90-110 mg/kg E300P Analytical Method: Chloride by EPA 300 Prep Method: Seg Number: 3135675 Matrix: Soil 08.26.2020 Date Prep: Parent Sample Id: 671099-011 MS Sample Id: 671099-011 S MSD Sample Id: 671099-011 SD RPD Parent Spike MS MS MSD MSD Limits %RPD Units Analysis Flag **Parameter** Result Limit Date Result Amount %Rec %Rec Result 199 08.27.2020 02:08 20 Chloride 177 364 94 365 94 90-110 0 mg/kg E300P Analytical Method: Chloride by EPA 300 Prep Method: Seq Number: 3135806 Matrix: Soil 08.27.2020 Date Prep: 671092-003 S 671092-003 SD Parent Sample Id: 671092-003 MS Sample Id: MSD Sample Id: Parent Spike MS MS Limits %RPD RPD Units Analysis MSD MSD Flag **Parameter** Result Limit Date Result Amount %Rec Result %Rec 08.27.2020 13:11 Chloride 85.2 199 290 103 289 102 90-110 0 20 mg/kg E300P Analytical Method: Chloride by EPA 300 Prep Method: 3135806 08.27.2020 Seq Number: Matrix: Soil Date Prep: MS Sample Id: 671112-008 S MSD Sample Id: 671112-008 SD Parent Sample Id: 671112-008 Spike %RPD RPD Parent MS MS Units Limits Analysis

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

Parameter

Chloride

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

Amount

199

Result

8.29

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

Result

210

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result = MSD/LCSD Result

0

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

Date

08.27.2020 14:29

Flag

%Rec

101

MSD

Result

210

MSD

%Rec

101

90-110

Limit

20

mg/kg

08.26.2020 21:46

Flag

o-Terphenyl

QC Summary 671092

LT Environmental, Inc.

JRU 34

105

70-135

Analytical Method: TPH by SW8015 Mod SW8015P Prep Method: Date Prep: Seq Number: 3135658 Matrix: Solid 08.26.2020 7710230-1-BLK LCS Sample Id: 7710230-1-BKS LCSD Sample Id: 7710230-1-BSD MB Sample Id:

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	< 50.0	1000	1000	100	1000	100	70-135	0	35	mg/kg	08.26.2020 21:46	
Diesel Range Organics (DRO)	< 50.0	1000	1040	104	1050	105	70-135	1	35	mg/kg	08.26.2020 21:46	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re		_	imits	Units	Analysis Date	
1-Chlorooctane	90		1	19		118	}	70	-135	%	08.26.2020 21:46	

SW8015P Analytical Method: TPH by SW8015 Mod Prep Method: 08.26.2020

107

3135658 Seq Number: Matrix: Solid Date Prep:

MB Sample Id: 7710230-1-BLK

88

MB Units Analysis Flag **Parameter** Result Date 08.26.2020 21:26 Motor Oil Range Hydrocarbons (MRO) < 50.0 mg/kg

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P 3135658 Seq Number: Matrix: Soil Date Prep: 08.26.2020 Parent Sample Id: 671092-001 MS Sample Id: 671092-001 S MSD Sample Id: 671092-001 SD

Parent Spike MS MS Limits %RPD RPD Units MSD MSD Analysis **Parameter** Result Result Limit Date Amount %Rec Result %Rec 08.26.2020 22:47 Gasoline Range Hydrocarbons (GRO) < 50.0 999 865 87 914 92 70-135 6 35 mg/kg Diesel Range Organics (DRO) < 50.0 999 924 92 975 98 70-135 5 35 mg/kg 08.26.2020 22:47

MSD MS MS Units Analysis **MSD** Limits **Surrogate** %Rec Flag Flag Date %Rec 08.26.2020 22:47 122 128 70-135 1-Chlorooctane % 08.26.2020 22:47 o-Terphenyl 112 117 70-135 %

Analytical Method: BTEX by EPA 8021B SW5035A Prep Method: 3135786 Seq Number: Date Prep: 08.27.2020 Matrix: Solid

7710267-1-BLK LCS Sample Id: 7710267-1-BKS LCSD Sample Id: 7710267-1-BSD MB Sample Id:

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.104	104	0.101	101	70-130	3	35	mg/kg	08.27.2020 11:30	
Toluene	< 0.00200	0.100	0.100	100	0.0974	97	70-130	3	35	mg/kg	08.27.2020 11:30	
Ethylbenzene	< 0.00200	0.100	0.106	106	0.102	102	71-129	4	35	mg/kg	08.27.2020 11:30	
m,p-Xylenes	< 0.00400	0.200	0.213	107	0.209	105	70-135	2	35	mg/kg	08.27.2020 11:30	
o-Xylene	< 0.00200	0.100	0.105	105	0.102	102	71-133	3	35	mg/kg	08.27.2020 11:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		98		97		70-130	%	08.27.2020 11:30
4-Bromofluorobenzene	111		99		98		70-130	%	08.27.2020 11:30

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec 1,4-Difluorobenzene

4-Bromofluorobenzene

08.27.2020 12:32

08.27.2020 12:32

QC Summary 671092

eurofins Environment Testing Xenco

LT Environmental, Inc.

JRU 34

98

102

70-130

70-130

%

%

 Analytical Method:
 BTEX by EPA 8021B
 Prep Method:
 SW5035A

 Seq Number:
 3135786
 Matrix:
 Soil
 Date Prep:
 08.27.2020

 Parent Sample Id:
 671126-001
 MS Sample Id:
 671126-001 S
 MSD Sample Id:
 671126-001 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	0.0996	0.111	111	0.0960	96	70-130	14	35	mg/kg	08.27.2020 12:32	
Toluene	< 0.00199	0.0996	0.104	104	0.0924	93	70-130	12	35	mg/kg	08.27.2020 12:32	
Ethylbenzene	< 0.00199	0.0996	0.110	110	0.0957	96	71-129	14	35	mg/kg	08.27.2020 12:32	
m,p-Xylenes	< 0.00398	0.199	0.220	111	0.195	98	70-135	12	35	mg/kg	08.27.2020 12:32	
o-Xylene	< 0.00199	0.0996	0.108	108	0.0967	97	71-133	11	35	mg/kg	08.27.2020 12:32	
Surrogate				IS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	

98

101

XENCO

Project Manager: Company Name:

Dan Moir
LT Environmental

Address:

300 North A Street

linc.

Permian Office

Bill to: (if different Company Name:

Address:

SIOY E

Greene St

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www.xenco.com

Page

9

State of Project:

Chain of Custody Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

Work Order No: 1071092

Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasibad, NM (432) 704-5440 Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Kule Littrel

,	7 7	tate	Relinquished by: (Signature)	Notice: Signature of the of service. Xenco will of Xenco. A minimum	Circle Method(s)				/	SWI	SWI	IMS	SWI	SWOO	ID Sample	Sample Custody Seals:	Cooler Custody Seals:	Recei	Temper	SAMPLE REC	70	Sampler's Name:	Project Location	Project Number:	Project Name:	Ph	City, State ZIP:
				s document and relinquishment of samples be liable only for the cost of samples and she charge of \$75.00 will be applied to each proj	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	~	Jak /	1		0	0	0	0	S	Sample Identification Matrix S	dy Seals: Yes (No) N/A		Received Intact: Yes No	Temperature (°C): 1,0/0,8	RECEIPT Temp Blank:	PO#:	me: Fatima Smith	tion Eddy county	Der: 0129 19156	URUM	Phone: (432)236 - 3849	III Idland, TX
	4	C	Received by: (Signature)	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 seryice. 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.	8RCRA 13PPM Te		/			A 11128 A	1021	1000	0958	126/20 0923 O-4"	Date Time Depth	Total Containers: 5	Correction Factor: -0-2	THIM O 7	Thermometer ID	Yes No Wet Ice: Yes No	Quote #:	Due Date:	Rush:	Routine	Turn Around	49 Email: fomith	19705 city, 1
6	4	8 26 20 12:55 2	Date/Time	ant company to Xenco, its affiliates and su sses or expenses incurred by the client if a mitted to Xenco, but not analyzed. These to	Texas 11 Al Sb As Ba Be B Cd 8RCRA Sb As Ba Be Cd Cr Co					- X	<<-			- X X	Number TP F	+ (EI (F	PA EP	8 A	015	80		_	Code		tha Honv.com, do	City, State ZIP: Car Shack
			Relinquished by: (Signature)	abcontractors. It assigns standard terms and conditions such losses are due to circumstances beyond the control terms will be enforced unless previously negotiated.	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Co Cu Pb Mn Mo Ni Se Ag Tl U																				ANALYSIS REQUEST	poir (@ Henvicom	NM 88220
			Received by: (Signature)	and conditions yond the control negotiated.	Mn Mo Ni K Se Ag SiO2 Na TI U												TAT	Zn Ac	NaO	HCL: HL	H2S0	HNO	None	MeO	JEST	Deliverables: EDD ADaPT	Reporting:Level III Level III PST/UST TRRP Level IV
			Date/Time		. Sr Tl Sn ∪ V Zn 1631/245.1/7470/7471:Hg										Sample Comments	received by 4:00pm	starts the day received by the lab if	Zn Acetate+ NaOH: Zn	NaOH: Na	 F	H2S04: H2	HNO3: HN	None: NO	MeOH: Me	Preservative Codes	Other:	T TRRP Level IV

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 08.26.2020 12.55.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 671092

Analyst:

Temperature Measuring device used: T_NM_007

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		.8	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		Yes	
#4 *Custody Seals intact on shipping contai	ner/ 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 relinquish	ned/ received?	Yes	
#10 Chain of Custody agrees with sample la	abels/matrix?	Yes	
#11 Container label(s) legible and intact?		Yes	
#12 Samples in proper container/ bottle?		Yes	Samples received in bulk containers.
#13 Samples properly preserved?		Yes	00.110.10.
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headsp	ace?	N/A	

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

Checklist completed by:

Cloe Clifton

Checklist reviewed by:

Jessica Warmer

Date: 08.26.2020

Date: 08.28.2020

PH Device/Lot#:

w Mexico
on Division
Incident ID
District RP

Incident ID NAB1921754897 District RP 2RP- 5553 Facility ID Application ID pAB pAB1921754701

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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										
may endanger public health or the environment. The acceptance should their operations have failed to adequately investigate and human health or the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or reg	rtain release notifications and perform corrective actions for releases which e of a C-141 report by the OCD does not relieve the operator of liability remediate contamination that pose a threat to groundwater, surface water, of a C-141 report does not relieve the operator of responsibility for gulations. The responsible party acknowledges they must substantially a conditions that existed prior to the release or their final land use in the OCD when reclamation and re-vegetation are complete.									
Printed Name: Kyle Littrell	Title: SH&E Supervisor									
Signature:	Date:9/28/2020									
email: Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331									
OCD Only										
Received by: Robert Hamlet	Date: <u>3/9/2021</u>									
	arty of liability should their operations have failed to adequately investigate and ace water, human health, or the environment nor does not relieve the responsible nd/or regulations.									
Closure Approved by: Robert Hamlet	Date: 3/9/2021									
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced									

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III
1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 10400

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road	5380	10400	C-141
Building #5 Midland, TX79707			

OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NAB1921754897 JAMES RANCH UNIT #034, thank you. This closure is approved.