

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	NRM2010050612
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

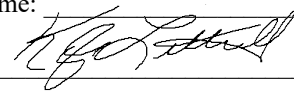
Cause of Release

Incident ID	NRM2010050612
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate 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 release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature:  _____	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>4/9/2020</u>

Location:	Corral Canyon 10-15 Federal Com 10H	
Spill Date:	3/25/2020	
Area 1		
Approximate Area =	44925.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	166.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	166.00	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	0.00	bbls
Total Produced Water =	136.00	bbls

Incident ID	NRM2010050612
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	50'-100' (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

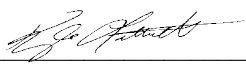
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NRM2010050612
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 06/22/20
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2010050612
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 06/22/20

email: Kyle_Littrell@xtoenergy.com

Telephone: _____

OCD Only

Received by: _____

Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____



LT Environmental, Inc.

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

June 22, 2020

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

**RE: Closure Request
XTO Energy, Inc.
Corral Canyon 10-15 Federal Com 10H
Incident ID: NRM2010050612
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Corral Canyon 10-15 Federal Com 10H (Site) in Unit C, Section 10, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil following the release of treated fresh water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2010050612.

RELEASE BACKGROUND

On March 25, 2020, a pump valve did not close completely and resulted in the release of 166 barrels (bbls) of treated fresh water. Approximately 136 bbls of treated fresh water were released within the lined containment unit and 30 bbls were released onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids; approximately 136 bbls of treated fresh water were recovered from within the lined containment. The net volume of treated fresh water released was 30 bbls. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on April 7, 2020 and was subsequently assigned Incident Number NRM2010050612.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between 50 and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted



groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320956103574301, located approximately 6,382 feet north of the Site. The groundwater well has a reported depth to groundwater of 98 feet bgs and a total depth of 140 feet bgs. There are nine groundwater wells within a 2-mile radius that indicate regional depth to groundwater is greater than 50 feet bgs. NMOSE well C-04324 Pod 9, located 1.4 miles west of the Site, was most recently measured in July 2019 and had a reported depth to groundwater of 62 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1. The closest continuously flowing water or significant watercourse to the Site is an intermittent streambed, located approximately 533 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On April 20, 2020, LTE personnel inspected the Site to evaluate the release area based on information provided in the Form C-141 and visual observations. The release extent was mapped utilizing a handheld Global Positioning System (GPS) and is depicted on Figure 2.

On April 30, 2020, LTE personnel returned to the Site to oversee site assessment activities. Potholes were advanced via track mounted backhoe at nine locations within the release extent. Potholes PH01 through PH09 were advanced to a depth of 2 feet bgs. Two delineation soil samples were collected from each pothole at depths of 1 foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each sample were documented on a lithologic/soil sampling log and are included as Attachment 1. The potholes were backfilled with the soil



Bratcher, M.
Page 3

removed. The potholes and delineation soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

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

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in delineation soil samples PH01/PH01A through PH09/PH09A, collected at depths of 1 foot and 2 feet bgs. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are provided in Attachment 3.

CONCLUSIONS

Delineation soil samples PH01/PH01A through PH09/PH09A were collected within the release area from depths of 1 foot and 2 feet bgs, to assess for the presence or absence of soil impacts as a result of the March 25, 2020 fresh water release at the Site. Laboratory analytical results for the delineation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release area.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified, and no soil excavation was required as a result of the treated freshwater release. XTO requests no further action for this release event and requests closure of Incident Number NRM2010050612.



Bratcher, M.
Page 4

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Korey Kennedy'. The signature is written in a cursive style and is positioned to the left of a vertical blue line.

Korey Kennedy
Project Environmental Scientist

A handwritten signature in black ink that reads 'Ashley L. Ager'. The signature is written in a cursive style and is positioned to the right of a vertical blue line.

Ashley L. Ager, P.G.
Senior Geologist

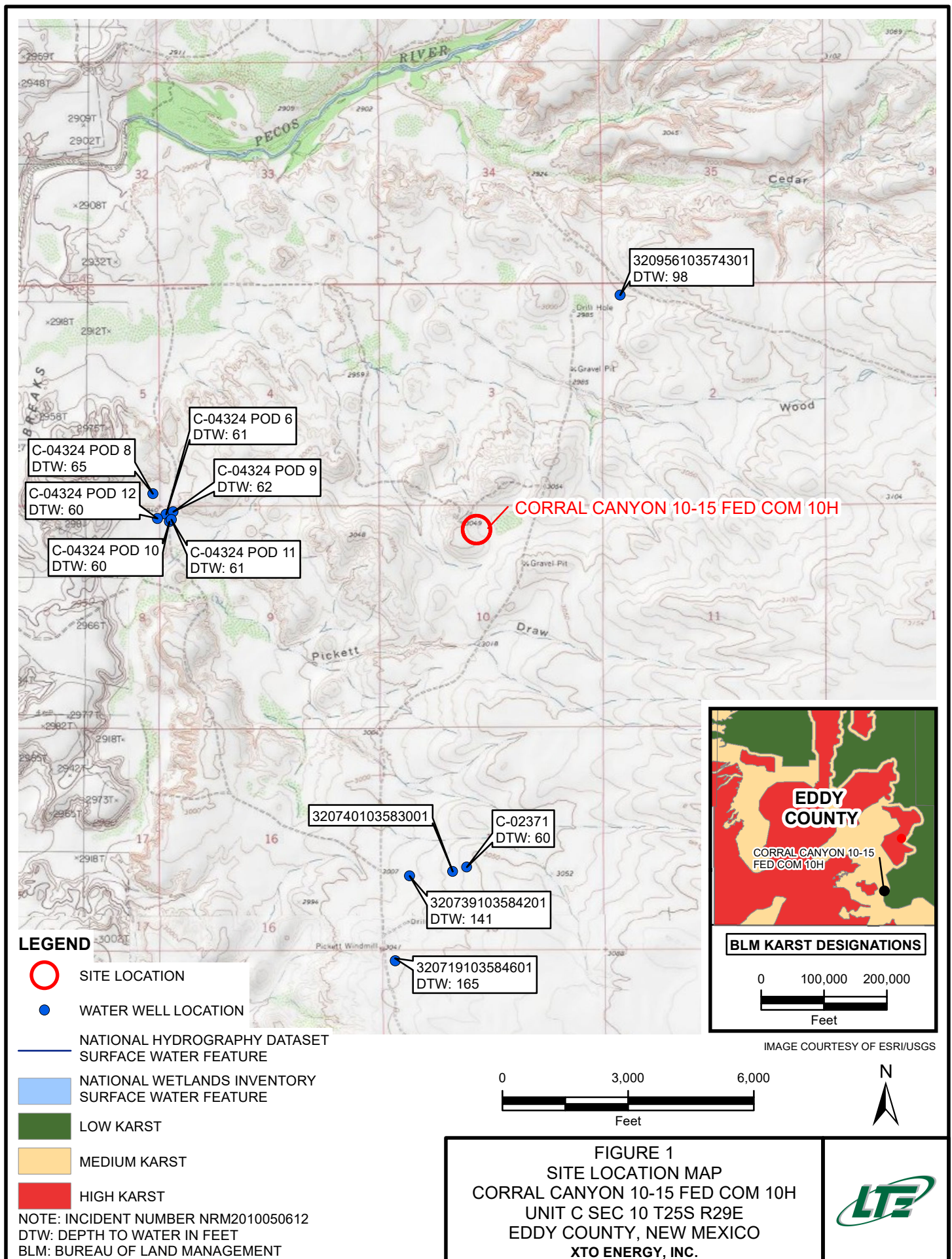
cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

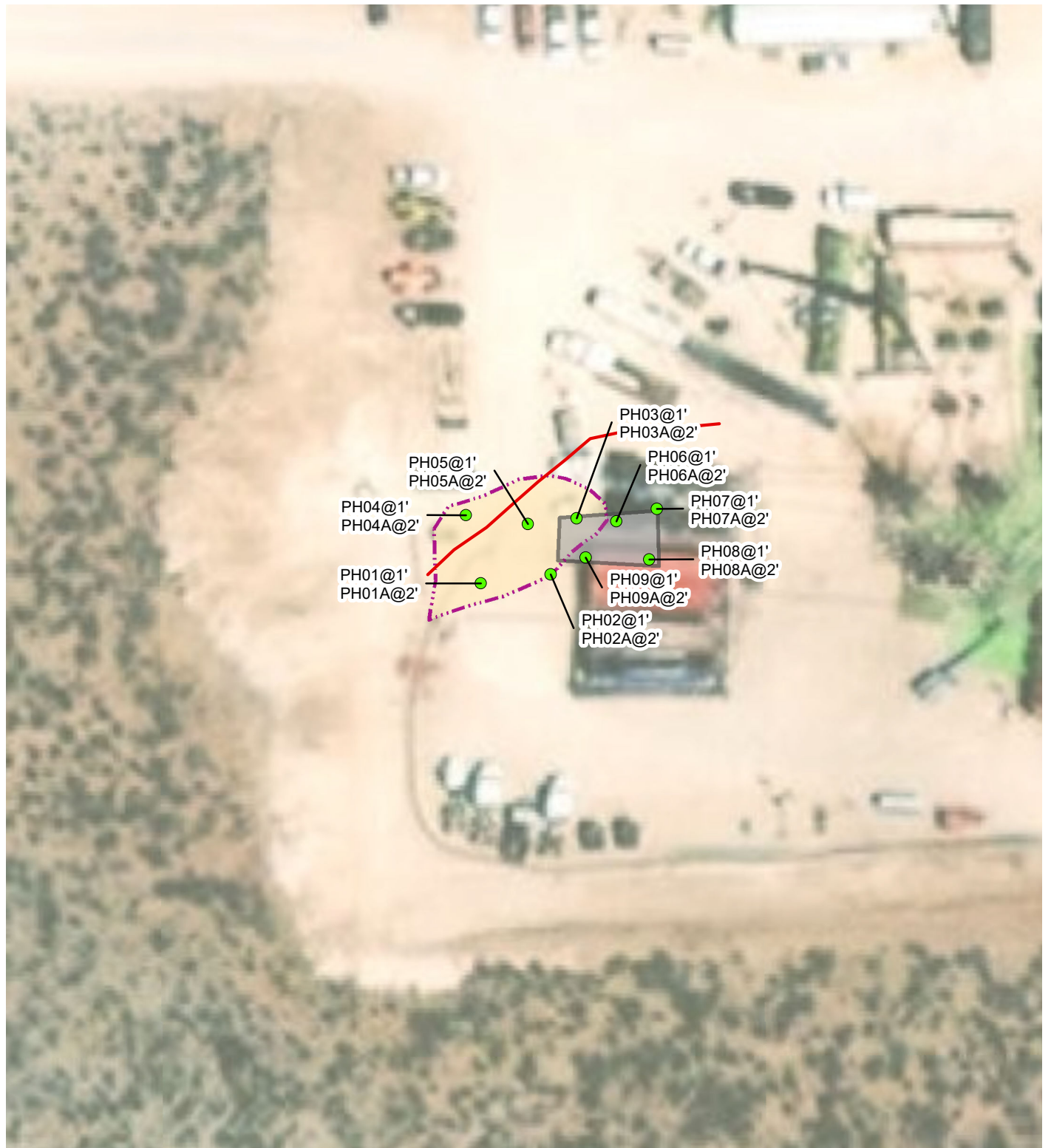
Appendices:

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

FIGURES





**LEGEND**

- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- RELEASE EXTENT
- INFRASTRUCTURE (FRAC TANK HAS BEEN REMOVED)

NOTE: INCIDENT NUMBER NRM2010050612
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

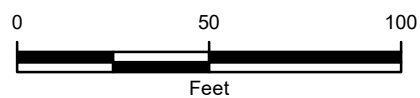


FIGURE 2
 DELINEATION SOIL SAMPLE LOCATIONS
 CORRAL CANYON 10-15 FED COM 10H
 UNIT C SEC 10 T25S R29E
 EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

Corral Canyon 10-15 Federal Com 10H
INCIDENT NUMBER NRM2010050612
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	10,000
PH01	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	185
PH01A	2	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	35.1
PH02	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1
PH02A	2	04/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	31.2
PH03	1	04/30/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<9.92
PH03A	2	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.80
PH04	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	23.6
PH04A	2	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	41.5
PH05	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	12.0
PH05A	2	04/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	<9.98
PH06	1	04/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	17.4
PH06A	2	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
PH07	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	12.1
PH07A	2	04/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	<9.92
PH08	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	11.6
PH08A	2	04/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
PH09	1	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	13.3
PH09A	2	04/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.96

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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



A proud member
of WSP

ATTACHMENT 1: LITHOLOGIC / SOIL SAMPLING LOG



 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or PH Name: <i>PH01</i>		Date: <i>4-30-20</i>				
		Site Name: <i>Cortez Canyon 10-15 Feet from IDIT</i>		RP or Incident Number:				
LITHOLOGIC / SOIL SAMPLING LOG		LTE Job Number: <i>012920060</i>						
Lat/Long: <i>32.150550, -103.972876</i>		Field Screening: Chloride, PID <i>CL/PID</i>		Logged By: <i>Travis Lutz</i> Method: <i>Extraction</i>				
Comments:		Hole Diameter: <i>N/A</i>		Total Depth: <i>1' & 2'</i>				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
	<i>2912</i>			<i>PH01</i>	<i>1'</i>	<i>1</i>		<i>CHCE Tracer Sand tan/white</i>
	<i>184.8</i>			<i>PH01A</i>	<i>2'</i>	<i>2</i>		<i>CHCE Tracer Sand tan/Brown</i>
						<i>3</i>		
						<i>4</i>		
						<i>5</i>		
						<i>6</i>		
						<i>7</i>		
						<i>8</i>		
						<i>9</i>		
						<i>10</i>		
						<i>11</i>		
						<i>12</i>		

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or PH Name: PH03-3A	Date: 4-30-20
		Site Name: Corral Canyon 10-15" F&D Com 10 ft RP or Incident Number: LTE Job Number: 012920060	
LITHOLOGIC / SOIL SAMPLING LOG			
Lat/Long: 32.150550, -103.972876		Field Screening: Chloride, PID CL/PID	
Comments:		Logged By: Tina Lacey	Method: Edmunds
		Hole Diameter: N/A	Total Depth: 1'-2"

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	184	0.6		PH03	1'	1		CHCE Trace Sand. tan / white
D/1	<124	0.8		PH03A	2'	2		CHCE/SP-SC tan / Brown
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

 LTE A proud member of WSP		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name:		Date:
				PH04-4A		4-30-20
				Site Name: Colina Canyon 10-15 Fed Com 10H		
				RP or Incident Number:		
				LTE Job Number: 012920060		
LITHOLOGIC / SOIL SAMPLING LOG						
Lat/Long:		Field Screening:		Logged By:		Method:
32.150550, -103.972876		Chloride, PID CL/PID		Teresa Rusey		Excavator
Comments:				Hole Diameter:		Total Depth:
				N/A		1'-2'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	252	1.4	N	PH04	1'	1		CHCE trace Sand tan/white
B/M	184.8	1.0	N	PH04A	2'	2		CHCE tan/Brown SP-sc
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or PH Name:		Date:	
		PH05-5A		4-30-20	
Site Name: CORRAL Canyon 10-15 Feet from 1011					
RP or Incident Number:					
LTE Job Number: 012920060					
LITHOLOGIC / SOIL SAMPLING LOG					
Lat/Long:		Field Screening:		Logged By:	
32.150550, -103.482876		Chloride, PID CL/PID		Tavis Casey	
Comments:		Hole Diameter:		Method: Excavator	
		NA		Total Depth: 1'-2'	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	212.8	0.7	N	PH05	1'	1		CITCE trace sand tan/white
D	141.8	0.5	N	PH05A	2'	2		CITCE tan/Brown SP-SC
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP		BH or PH Name: PH09-9A		Date: 4-30-20
		Site Name: Corral Canyon 10-15" Fed Com 10th		RP or Incident Number:
Compliance · Engineering · Remediation		LTE Job Number: 012920040		Logged By: Tim's Rusty
Lat/Long: 32.150550, -103.972876		Field Screening: Chloride, PID CL/PID		Method: Edmunter
Comments:		Hole Diameter: N/A		Total Depth: 1-2'

LITHOLOGIC / SOIL SAMPLING LOG								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	CL24			PH09	1'	1		CLCE trace sand. tan/white
D	CL24			PH09A	2'	2		CLCE tan/Brown SP-SC
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of treated water release from west end of pad facing northeast.



Photograph 2: View of release area from west end of pad, before sampling, facing east.

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS





Certificate of Analysis Summary 660345

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 10-15 Fed Com 10H

Project Id: 012920060
Contact: Tacoma Morrissey
Project Location:

Date Received in Lab: Thu 04.30.2020 17:13
Report Date: 05.06.2020 07:48
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660345-001	660345-002	660345-003	660345-004	660345-005	660345-006
	<i>Field Id:</i>	PH01	PH01A	PH02	PH02A	PH03	PH03A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.30.2020 11:51	04.30.2020 11:54	04.30.2020 12:06	04.30.2020 12:10	04.30.2020 13:02	04.30.2020 13:04
BTEX by EPA 8021B	<i>Extracted:</i>	05.01.2020 11:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30
	<i>Analyzed:</i>	05.01.2020 14:31	05.01.2020 14:53	05.01.2020 15:14	05.01.2020 15:35	05.01.2020 15:57	05.01.2020 16:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59
	<i>Analyzed:</i>	05.01.2020 09:11	05.01.2020 09:17	05.01.2020 09:23	05.01.2020 09:40	05.01.2020 09:45	05.01.2020 09:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		185 9.98	35.1 10.0	<10.1 10.1	31.2 9.98	<9.92 9.92	<9.80 9.80
TPH by SW8015 Mod	<i>Extracted:</i>	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30
	<i>Analyzed:</i>	04.30.2020 20:40	04.30.2020 21:00	04.30.2020 21:21	04.30.2020 22:02	04.30.2020 22:22	04.30.2020 22:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Total GRO-DRO		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Total TPH		<50.3 50.3	<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660345

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 10-15 Fed Com 10H

Project Id: 012920060
Contact: Tacoma Morrissey
Project Location:

Date Received in Lab: Thu 04.30.2020 17:13
Report Date: 05.06.2020 07:48
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660345-007	660345-008	660345-009	660345-010	660345-011	660345-012
	<i>Field Id:</i>	PH04	PH04A	PH05	PH05A	PH06	PH06A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.30.2020 13:11	04.30.2020 13:17	04.30.2020 13:23	04.30.2020 12:30	04.30.2020 12:45	04.30.2020 12:50
BTEX by EPA 8021B	<i>Extracted:</i>	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30
	<i>Analyzed:</i>	05.01.2020 16:39	05.01.2020 18:26	05.01.2020 18:48	05.01.2020 19:09	05.01.2020 19:31	05.01.2020 19:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00401 0.00401	<0.00398 0.00398	<0.00396 0.00396	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59
	<i>Analyzed:</i>	05.01.2020 09:57	05.01.2020 10:02	05.01.2020 10:08	05.01.2020 10:25	05.01.2020 10:31	05.01.2020 10:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.6 9.96	41.5 9.96	12.0 9.94	<9.98 9.98	17.4 9.98	<10.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30
	<i>Analyzed:</i>	04.30.2020 23:03	04.30.2020 23:43	05.01.2020 00:04	05.01.2020 00:24	05.01.2020 00:44	05.01.2020 01:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<49.8 49.8	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<49.8 49.8	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<49.8 49.8	<49.8 49.8
Total GRO-DRO		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<49.8 49.8	<49.8 49.8
Total TPH		<50.0 50.0	<50.3 50.3	<50.0 50.0	<50.1 50.1	<49.8 49.8	<49.8 49.8

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660345

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon 10-15 Fed Com 10H

Project Id: 012920060
Contact: Tacoma Morrissey
Project Location:

Date Received in Lab: Thu 04.30.2020 17:13
Report Date: 05.06.2020 07:48
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660345-013	660345-014	660345-015	660345-016	660345-017	660345-018
	<i>Field Id:</i>	PH07	PH07A	PH08	PH08A	PH09	PH09A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.30.2020 12:33	04.30.2020 12:37	04.30.2020 12:16	04.30.2020 12:19	04.30.2020 12:55	04.30.2020 12:58
BTEX by EPA 8021B	<i>Extracted:</i>	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 14:30	05.01.2020 16:33
	<i>Analyzed:</i>	05.01.2020 20:13	05.01.2020 20:35	05.01.2020 20:56	05.01.2020 21:18	05.01.2020 21:39	05.02.2020 00:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 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	<0.00397 0.00397	<0.00399 0.00399	<0.00399 0.00399
o-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	<i>Extracted:</i>	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59	05.01.2020 07:59
	<i>Analyzed:</i>	05.01.2020 10:54	05.01.2020 10:59	05.01.2020 11:05	05.01.2020 11:11	05.01.2020 11:16	05.01.2020 11:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		12.1 10.0	<9.92 9.92	11.6 10.0	<10.0 10.0	13.3 9.96	<9.96 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	04.30.2020 17:30	05.01.2020 14:00
	<i>Analyzed:</i>	05.01.2020 01:25	05.01.2020 01:46	05.01.2020 02:06	05.01.2020 02:26	05.01.2020 02:46	05.01.2020 15:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.1 50.1
Total GRO-DRO		<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.1 50.1
Total TPH		<50.3 50.3	<50.2 50.2	<50.2 50.2	<50.0 50.0	<49.8 49.8	<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
Project Manager



Analytical Report 660345

for

LT Environmental, Inc.

Project Manager: Tacoma Morrissey

Corral Canyon 10-15 Fed Com 10H

012920060

05.06.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.06.2020

Project Manager: **Tacoma Morrissey**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **660345**

Corral Canyon 10-15 Fed Com 10H

Project Address:

Tacoma Morrissey:

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) 660345. 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. 660345 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'.

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 660345****LT Environmental, Inc., Arvada, CO**

Corral Canyon 10-15 Fed Com 10H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	04.30.2020 11:51	1 ft	660345-001
PH01A	S	04.30.2020 11:54	2 ft	660345-002
PH02	S	04.30.2020 12:06	1 ft	660345-003
PH02A	S	04.30.2020 12:10	2 ft	660345-004
PH03	S	04.30.2020 13:02	1 ft	660345-005
PH03A	S	04.30.2020 13:04	2 ft	660345-006
PH04	S	04.30.2020 13:11	1 ft	660345-007
PH04A	S	04.30.2020 13:17	2 ft	660345-008
PH05	S	04.30.2020 13:23	1 ft	660345-009
PH05A	S	04.30.2020 12:30	2 ft	660345-010
PH06	S	04.30.2020 12:45	1 ft	660345-011
PH06A	S	04.30.2020 12:50	2 ft	660345-012
PH07	S	04.30.2020 12:33	1 ft	660345-013
PH07A	S	04.30.2020 12:37	2 ft	660345-014
PH08	S	04.30.2020 12:16	1 ft	660345-015
PH08A	S	04.30.2020 12:19	2 ft	660345-016
PH09	S	04.30.2020 12:55	1 ft	660345-017
PH09A	S	04.30.2020 12:58	2 ft	660345-018



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Corral Canyon 10-15 Fed Com 10H

Project ID: 012920060
Work Order Number(s): 660345

Report Date: 05.06.2020
Date Received: 04.30.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH01** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-001 Date Collected: 04.30.2020 11:51 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	185	9.98	mg/kg	05.01.2020 09:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124745

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.30.2020 20:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.30.2020 20:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.30.2020 20:40	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.30.2020 20:40	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.30.2020 20:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.30.2020 20:40	
o-Terphenyl	84-15-1	104	%	70-135	04.30.2020 20:40	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH01**
Lab Sample Id: 660345-001

Matrix: Soil
Date Collected: 04.30.2020 11:51

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.01.2020 11:30

Basis: Wet Weight

Seq Number: 3124843

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.01.2020 14:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 14:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.01.2020 14:31	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.01.2020 14:31	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH01A**
Lab Sample Id: 660345-002

Matrix: Soil
Date Collected: 04.30.2020 11:54

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.1	10.0	mg/kg	05.01.2020 09:17		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124745

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.30.2020 21:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.30.2020 21:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.30.2020 21:00	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.30.2020 21:00	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.30.2020 21:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	04.30.2020 21:00	
o-Terphenyl	84-15-1	108	%	70-135	04.30.2020 21:00	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH01A**
Lab Sample Id: 660345-002

Matrix: Soil
Date Collected: 04.30.2020 11:54

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.01.2020 14:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 14:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.01.2020 14:53	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.01.2020 14:53	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH02** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-003 Date Collected: 04.30.2020 12:06 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	05.01.2020 09:23	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124745

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.30.2020 21:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.30.2020 21:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.30.2020 21:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.30.2020 21:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.30.2020 21:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.30.2020 21:21	
o-Terphenyl	84-15-1	103	%	70-135	04.30.2020 21:21	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH02**
Lab Sample Id: 660345-003

Matrix: Soil
Date Collected: 04.30.2020 12:06

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 15:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 15:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.01.2020 15:14	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.01.2020 15:14	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH02A** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-004 Date Collected: 04.30.2020 12:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.2	9.98	mg/kg	05.01.2020 09:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.30.2020 22:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.30.2020 22:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.30.2020 22:02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.30.2020 22:02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.30.2020 22:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.30.2020 22:02	
o-Terphenyl	84-15-1	107	%	70-135	04.30.2020 22:02	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH02A**
Lab Sample Id: 660345-004

Matrix: Soil
Date Collected: 04.30.2020 12:10

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.01.2020 15:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.01.2020 15:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.01.2020 15:35		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.01.2020 15:35		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH03** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-005 Date Collected: 04.30.2020 13:02 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	05.01.2020 09:45	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.30.2020 22:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.30.2020 22:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.30.2020 22:22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.30.2020 22:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.30.2020 22:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.30.2020 22:22	
o-Terphenyl	84-15-1	101	%	70-135	04.30.2020 22:22	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH03**
Lab Sample Id: 660345-005

Matrix: Soil
Date Collected: 04.30.2020 13:02

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.01.2020 15:57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.01.2020 15:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.01.2020 15:57	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.01.2020 15:57	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH03A**
Lab Sample Id: 660345-006

Matrix: Soil
Date Collected: 04.30.2020 13:04

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.80	9.80	mg/kg	05.01.2020 09:51	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.30.2020 22:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.30.2020 22:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.30.2020 22:42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.30.2020 22:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.30.2020 22:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.30.2020 22:42	
o-Terphenyl	84-15-1	103	%	70-135	04.30.2020 22:42	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH03A**
Lab Sample Id: 660345-006

Matrix: Soil
Date Collected: 04.30.2020 13:04

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.01.2020 16:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 16:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.01.2020 16:18		
4-Bromofluorobenzene	460-00-4	113	%	70-130	05.01.2020 16:18		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH04** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-007 Date Collected: 04.30.2020 13:11 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.6	9.96	mg/kg	05.01.2020 09:57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.30.2020 23:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.30.2020 23:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.30.2020 23:03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.30.2020 23:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.30.2020 23:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.30.2020 23:03	
o-Terphenyl	84-15-1	104	%	70-135	04.30.2020 23:03	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH04**
Lab Sample Id: 660345-007

Matrix: Soil
Date Collected: 04.30.2020 13:11

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 16:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 16:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.01.2020 16:39		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.01.2020 16:39		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH04A**
Lab Sample Id: 660345-008

Matrix: Soil
Date Collected: 04.30.2020 13:17

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.5	9.96	mg/kg	05.01.2020 10:02		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.30.2020 23:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.30.2020 23:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.30.2020 23:43	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.30.2020 23:43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.30.2020 23:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.30.2020 23:43	
o-Terphenyl	84-15-1	102	%	70-135	04.30.2020 23:43	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH04A**
Lab Sample Id: 660345-008

Matrix: Soil
Date Collected: 04.30.2020 13:17

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.01.2020 18:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 18:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.01.2020 18:26	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.01.2020 18:26	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH05** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-009 Date Collected: 04.30.2020 13:23 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	9.94	mg/kg	05.01.2020 10:08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.01.2020 00:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.01.2020 00:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.01.2020 00:04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.01.2020 00:04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.01.2020 00:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.01.2020 00:04	
o-Terphenyl	84-15-1	105	%	70-135	05.01.2020 00:04	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH05**
Lab Sample Id: 660345-009

Matrix: Soil
Date Collected: 04.30.2020 13:23

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.01.2020 18:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 18:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.01.2020 18:48		
1,4-Difluorobenzene	540-36-3	100	%	70-130	05.01.2020 18:48		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH05A**
Lab Sample Id: 660345-010

Matrix: Soil
Date Collected: 04.30.2020 12:30

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	05.01.2020 10:25	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% 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	05.01.2020 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.01.2020 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.01.2020 00:24	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.01.2020 00:24	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.01.2020 00:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	05.01.2020 00:24	
o-Terphenyl	84-15-1	96	%	70-135	05.01.2020 00:24	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH05A**
Lab Sample Id: 660345-010

Matrix: Soil
Date Collected: 04.30.2020 12:30

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.01.2020 19:09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.01.2020 19:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.01.2020 19:09		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.01.2020 19:09		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH06**
Lab Sample Id: 660345-011

Matrix: Soil
Date Collected: 04.30.2020 12:45

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.4	9.98	mg/kg	05.01.2020 10:31		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.01.2020 00:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.01.2020 00:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.01.2020 00:44	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.01.2020 00:44	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.01.2020 00:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.01.2020 00:44	
o-Terphenyl	84-15-1	115	%	70-135	05.01.2020 00:44	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH06**
Lab Sample Id: 660345-011

Matrix: Soil
Date Collected: 04.30.2020 12:45

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.01.2020 19:31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.01.2020 19:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.01.2020 19:31		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.01.2020 19:31		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH06A** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-012 Date Collected: 04.30.2020 12:50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	05.01.2020 10:48	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.01.2020 01:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.01.2020 01:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.01.2020 01:05	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.01.2020 01:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.01.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.01.2020 01:05	
o-Terphenyl	84-15-1	105	%	70-135	05.01.2020 01:05	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH06A**
Lab Sample Id: 660345-012

Matrix: Soil
Date Collected: 04.30.2020 12:50

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 19:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 19:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.01.2020 19:52	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.01.2020 19:52	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH07** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-013 Date Collected: 04.30.2020 12:33 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	10.0	mg/kg	05.01.2020 10:54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.01.2020 01:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.01.2020 01:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.01.2020 01:25	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.01.2020 01:25	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.01.2020 01:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	05.01.2020 01:25	
o-Terphenyl	84-15-1	100	%	70-135	05.01.2020 01:25	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH07**
Lab Sample Id: 660345-013

Matrix: Soil
Date Collected: 04.30.2020 12:33

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 20:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 20:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.01.2020 20:13		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.01.2020 20:13		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH07A**
Lab Sample Id: 660345-014

Matrix: Soil
Date Collected: 04.30.2020 12:37

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	05.01.2020 10:59	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.01.2020 01:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.01.2020 01:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.01.2020 01:46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.01.2020 01:46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.01.2020 01:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.01.2020 01:46	
o-Terphenyl	84-15-1	109	%	70-135	05.01.2020 01:46	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH07A**
Lab Sample Id: 660345-014

Matrix: Soil
Date Collected: 04.30.2020 12:37

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.01.2020 20:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.01.2020 20:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	05.01.2020 20:35		
1,4-Difluorobenzene	540-36-3	91	%	70-130	05.01.2020 20:35		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH08** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-015 Date Collected: 04.30.2020 12:16 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.6	10.0	mg/kg	05.01.2020 11:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.01.2020 02:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.01.2020 02:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.01.2020 02:06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.01.2020 02:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.01.2020 02:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	05.01.2020 02:06	
o-Terphenyl	84-15-1	101	%	70-135	05.01.2020 02:06	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH08**
Lab Sample Id: 660345-015

Matrix: Soil
Date Collected: 04.30.2020 12:16

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 20:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 20:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	05.01.2020 20:56		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.01.2020 20:56		



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH08A**
Lab Sample Id: 660345-016

Matrix: Soil
Date Collected: 04.30.2020 12:19

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	05.01.2020 11:11	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124749

Date Prep: 04.30.2020 17:30

Prep Method: SW8015P

% 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	05.01.2020 02:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.01.2020 02:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.01.2020 02:26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.01.2020 02:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.01.2020 02:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.01.2020 02:26	
o-Terphenyl	84-15-1	112	%	70-135	05.01.2020 02:26	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH08A**
Lab Sample Id: 660345-016

Matrix: Soil
Date Collected: 04.30.2020 12:19

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.01.2020 21:18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.01.2020 21:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.01.2020 21:18	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.01.2020 21:18	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH09** Matrix: Soil Date Received: 04.30.2020 17:13
 Lab Sample Id: 660345-017 Date Collected: 04.30.2020 12:55 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.01.2020 07:59 Basis: Wet Weight
 Seq Number: 3124857

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.3	9.96	mg/kg	05.01.2020 11:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 04.30.2020 17:30 Basis: Wet Weight
 Seq Number: 3124749

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.01.2020 02:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.01.2020 02:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.01.2020 02:46	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.01.2020 02:46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.01.2020 02:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	05.01.2020 02:46	
o-Terphenyl	84-15-1	103	%	70-135	05.01.2020 02:46	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH09**
Lab Sample Id: 660345-017

Matrix: Soil
Date Collected: 04.30.2020 12:55

Date Received: 04.30.2020 17:13
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124843

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 14:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 21:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 21:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.01.2020 21:39	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.01.2020 21:39	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH09A**
Lab Sample Id: 660345-018

Matrix: Soil
Date Collected: 04.30.2020 12:58

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3124857

Date Prep: 05.01.2020 07:59

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	05.01.2020 11:22	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3124868

Date Prep: 05.01.2020 14:00

Prep Method: SW8015P

% 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	05.01.2020 15:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.01.2020 15:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.01.2020 15:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.01.2020 15:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.01.2020 15:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.01.2020 15:13	
o-Terphenyl	84-15-1	113	%	70-135	05.01.2020 15:13	



Certificate of Analytical Results 660345

LT Environmental, Inc., Arvada, CO

Corral Canyon 10-15 Fed Com 10H

Sample Id: **PH09A**
Lab Sample Id: 660345-018

Matrix: Soil
Date Collected: 04.30.2020 12:58

Date Received: 04.30.2020 17:13
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3124854

Prep Method: SW5035A

% Moisture:

Date Prep: 05.01.2020 16:33

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.02.2020 00:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.02.2020 00:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.02.2020 00:30		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.02.2020 00:30		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Corral Canyon 10-15 Fed Com 10H

Analytical Method: Chloride by EPA 300

Seq Number: 3124857

MB Sample Id: 7702477-1-BLK

Matrix: Solid

LCS Sample Id: 7702477-1-BKS

Prep Method: E300P

Date Prep: 05.01.2020

LCSD Sample Id: 7702477-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	260	104	90-110	0	20	mg/kg	05.01.2020 08:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3124857

Parent Sample Id: 660344-005

Matrix: Soil

MS Sample Id: 660344-005 S

Prep Method: E300P

Date Prep: 05.01.2020

MSD Sample Id: 660344-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	51.2	199	258	104	263	106	90-110	2	20	mg/kg	05.01.2020 08:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3124857

Parent Sample Id: 660345-009

Matrix: Soil

MS Sample Id: 660345-009 S

Prep Method: E300P

Date Prep: 05.01.2020

MSD Sample Id: 660345-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.0	199	221	105	228	109	90-110	3	20	mg/kg	05.01.2020 10:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124745

MB Sample Id: 7702485-1-BLK

Matrix: Solid

LCS Sample Id: 7702485-1-BKS

Prep Method: SW8015P

Date Prep: 04.30.2020

LCSD Sample Id: 7702485-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1090	109	857	86	70-135	24	35	mg/kg	04.30.2020 12:30	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	961	96	70-135	15	35	mg/kg	04.30.2020 12:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		127		111		70-135	%	04.30.2020 12:30
o-Terphenyl	101		120		108		70-135	%	04.30.2020 12:30

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124749

MB Sample Id: 7702481-1-BLK

Matrix: Solid

LCS Sample Id: 7702481-1-BKS

Prep Method: SW8015P

Date Prep: 04.30.2020

LCSD Sample Id: 7702481-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	951	95	839	84	70-135	13	35	mg/kg	04.30.2020 12:30	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	921	92	70-135	15	35	mg/kg	04.30.2020 12:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		123		120		70-135	%	04.30.2020 12:30
o-Terphenyl	109		122		106		70-135	%	04.30.2020 12:30

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

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

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

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



LT Environmental, Inc.
Corral Canyon 10-15 Fed Com 10H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124868

MB Sample Id: 7702583-1-BLK

Matrix: Solid

LCS Sample Id: 7702583-1-BKS

Prep Method: SW8015P

Date Prep: 05.01.2020

LCSD Sample Id: 7702583-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	846	85	70-135	23	35	mg/kg	05.01.2020 12:30	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	947	95	70-135	14	35	mg/kg	05.01.2020 12:30	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	94		134		110		70-135	%	05.01.2020 12:30			
o-Terphenyl	99		122		106		70-135	%	05.01.2020 12:30			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124745

Matrix: Solid

MB Sample Id: 7702485-1-BLK

Prep Method: SW8015P

Date Prep: 04.30.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.30.2020 12:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124749

Matrix: Solid

MB Sample Id: 7702481-1-BLK

Prep Method: SW8015P

Date Prep: 04.30.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.30.2020 12:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124868

Matrix: Solid

MB Sample Id: 7702583-1-BLK

Prep Method: SW8015P

Date Prep: 05.01.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.01.2020 12:09	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124745

Matrix: Soil

Parent Sample Id: 660344-001

MS Sample Id: 660344-001 S

Prep Method: SW8015P

Date Prep: 04.30.2020

MSD Sample Id: 660344-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	916	91	928	93	70-135	1	35	mg/kg	04.30.2020 19:38	
Diesel Range Organics (DRO)	<50.3	1010	1020	101	1040	104	70-135	2	35	mg/kg	04.30.2020 19:38	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			116		118		70-135	%	04.30.2020 19:38			
o-Terphenyl			115		118		70-135	%	04.30.2020 19:38			

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

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

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

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



LT Environmental, Inc.
Corral Canyon 10-15 Fed Com 10H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124749

Parent Sample Id: 660344-002

Matrix: Soil

MS Sample Id: 660344-002 S

Prep Method: SW8015P

Date Prep: 04.30.2020

MSD Sample Id: 660344-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	888	89	888	89	70-135	0	35	mg/kg	04.30.2020 19:38	
Diesel Range Organics (DRO)	<49.8	995	1000	101	1000	100	70-135	0	35	mg/kg	04.30.2020 19:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		109		70-135	%	04.30.2020 19:38
o-Terphenyl	115		114		70-135	%	04.30.2020 19:38

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124868

Parent Sample Id: 660414-001

Matrix: Soil

MS Sample Id: 660414-001 S

Prep Method: SW8015P

Date Prep: 05.01.2020

MSD Sample Id: 660414-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	918	92	902	90	70-135	2	35	mg/kg	05.01.2020 14:30	
Diesel Range Organics (DRO)	<49.9	998	1030	103	1000	100	70-135	3	35	mg/kg	05.01.2020 14:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		116		70-135	%	05.01.2020 14:30
o-Terphenyl	121		113		70-135	%	05.01.2020 14:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124843

MB Sample Id: 7702532-1-BLK

Matrix: Solid

LCS Sample Id: 7702532-1-BKS

Prep Method: SW5035A

Date Prep: 05.01.2020

LCSD Sample Id: 7702532-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.113	113	70-130	5	35	mg/kg	05.01.2020 11:40	
Toluene	<0.00200	0.100	0.0998	100	0.109	109	70-130	9	35	mg/kg	05.01.2020 11:40	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.101	101	71-129	7	35	mg/kg	05.01.2020 11:40	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.200	100	70-135	8	35	mg/kg	05.01.2020 11:40	
o-Xylene	<0.00200	0.100	0.0955	96	0.103	103	71-133	8	35	mg/kg	05.01.2020 11:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		107		70-130	%	05.01.2020 11:40
4-Bromofluorobenzene	107		99		101		70-130	%	05.01.2020 11:40

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

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

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

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



LT Environmental, Inc.
Corral Canyon 10-15 Fed Com 10H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124854

MB Sample Id: 7702535-1-BLK

Matrix: Solid

LCS Sample Id: 7702535-1-BKS

Prep Method: SW5035A

Date Prep: 05.01.2020

LCSD Sample Id: 7702535-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.115	115	70-130	7	35	mg/kg	05.01.2020 23:05	
Toluene	<0.00200	0.100	0.101	101	0.105	105	70-130	4	35	mg/kg	05.01.2020 23:05	
Ethylbenzene	<0.00200	0.100	0.0936	94	0.0969	97	71-129	3	35	mg/kg	05.01.2020 23:05	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.190	95	70-135	3	35	mg/kg	05.01.2020 23:05	
o-Xylene	<0.00200	0.100	0.0954	95	0.0992	99	71-133	4	35	mg/kg	05.01.2020 23:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		106		109		70-130	%	05.01.2020 23:05
4-Bromofluorobenzene	109		99		101		70-130	%	05.01.2020 23:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124843

Parent Sample Id: 660344-001

Matrix: Soil

MS Sample Id: 660344-001 S

Prep Method: SW5035A

Date Prep: 05.01.2020

MSD Sample Id: 660344-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.117	117	0.0952	95	70-130	21	35	mg/kg	05.01.2020 17:01	
Toluene	<0.00200	0.100	0.105	105	0.0864	86	70-130	19	35	mg/kg	05.01.2020 17:01	
Ethylbenzene	<0.00200	0.100	0.0986	99	0.0812	81	71-129	19	35	mg/kg	05.01.2020 17:01	
m,p-Xylenes	<0.00401	0.200	0.191	96	0.159	80	70-135	18	35	mg/kg	05.01.2020 17:01	
o-Xylene	<0.00200	0.100	0.0999	100	0.0817	82	71-133	20	35	mg/kg	05.01.2020 17:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		111		70-130	%	05.01.2020 17:01
4-Bromofluorobenzene	100		103		70-130	%	05.01.2020 17:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124854

Parent Sample Id: 660345-018

Matrix: Soil

MS Sample Id: 660345-018 S

Prep Method: SW5035A

Date Prep: 05.01.2020

MSD Sample Id: 660345-018 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	0.0958	96	0.113	112	70-130	16	35	mg/kg	05.02.2020 08:21	
Toluene	<0.00199	0.0996	0.0864	87	0.103	102	70-130	18	35	mg/kg	05.02.2020 08:21	
Ethylbenzene	<0.00199	0.0996	0.0809	81	0.0958	95	71-129	17	35	mg/kg	05.02.2020 08:21	
m,p-Xylenes	<0.00398	0.199	0.157	79	0.186	92	70-135	17	35	mg/kg	05.02.2020 08:21	
o-Xylene	<0.00199	0.0996	0.0820	82	0.0967	96	71-133	16	35	mg/kg	05.02.2020 08:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	05.02.2020 08:21
4-Bromofluorobenzene	99		99		70-130	%	05.02.2020 08:21

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

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

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

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



Chain of Custody

Work Order No:

660345

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

Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

www.xenco.com

Page 1 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	tmorrissey@ltenv.com teasey@ltenv.com ab

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

Project Name:	Corral Canyon 1045 Fekem 104	Turn Around	
Project Number:	012920060	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):	1.8	Thermometer ID		
Received In tact:	Yes ☒ No ☐	Correction Factor:	T-NM-005	
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers:	18	
Sample Custody Seals:	Yes ☒ No ☐			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST																Work Order Notes
PH01	5	4/30/20	11:51	1'	1	X	X	X													
PH01A			11:54	2'	1	X	X	X													
PH02			12:06	1'	1	X	X	X													
PH02A			12:10	2'	1	X	X	X													
PH03			13:02	1'	1	X	X	X													
PH03A			13:04	2'	1	X	X	X													
PH04			13:11	1'	1	X	X	X													
PH04A			13:17	2'	1	X	X	X													
PH05			13:23	1'	1	X	X	X													
PH05A			13:30	2'	1	X	X	X													

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4/30/2017 3			2
					4
					6



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Phoenix, AZ (480-355-0900) Atlanta GA (770-449-5800) Tampa, FL (813)
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No.:

1220 745

www.xenco.com

Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	tmorrissey@ltenv.com tcasey@ltenv.com

Work Order Comments			
Program: UST/ST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐			
State of Project: NM			
Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐			
Deliverables: EDD ☐ ADaPT ☐ Other: ☐			

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>			TCLP / SPLP	6010:	8RCRA		Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U												
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$8 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																		
1631 / 245.1 / 7470 / 7471 : Hg																																		

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4/30/20 1715			

Revised Date 05/14/18 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.30.2020 05.13.00 PM

Work Order #: 660345

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 04.30.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.01.2020