

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

Form C-141
 Revised August 24, 2018
 Submit to appropriate OCD District office

Oil Conservation Division
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Incident ID	NVV2002832621
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.27484127 Longitude -103.93593978
 (NAD 83 in decimal degrees to 5 decimal places)

Site Name	Remuda North 25 State 906H	Site Type	Well Location
Date Release Discovered	1/1/2020	API# (if applicable)	30-015-44312 (Remuda North 25 State 906H)

Unit Letter	Section	Township	Range	County
J	25	23S	29E	EDDY

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls) 0.0	Volume Recovered (bbls) 0.0
☒ Produced Water	Volume Released (bbls) 31.0	Volume Recovered (bbls) 30.0
	Is the concentration of dissolved chloride 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: The valve was left open and over filled the pump down tank, this resulted in a release of 31 bbls of produced water. A total of 30 bbls was recovered from the impermeable containment and 1 bbl was released onto the pad. A third party resource has been retained to assist in the remediation.

Incident ID	NVV2002832621
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? YES – An unauthorized release of fluid over 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? YES, by Amy Ruth : Mike Bratcher; Rob Hamlet; Victoria Venegas; 'Griswold, Jim, EMNRD'; rmann@slo.state.nm.us: by email January 2, 2020 on 5:43 PM.	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Adrian Baker</u>	Title: <u>SH&E Coordinator</u>
Signature: <u></u>	Date: <u>1/16/2020</u>
email: <u>adrian_baker@xtoenergy.com</u>	Telephone: <u>432-236-3808</u>
<u>OCD Only</u>	
Received by: <u>Victoria Venegas</u>	Date: <u>01/28/2020</u>

Location:	Remuda North 25 State 906H	
Spill Date:	1/1/2020	
Inside Containment		
Approximate Area =	168.44	cubic ft.
Approximate total volume recovered =	30.00	bbls
VOLUME OF LEAK		
Total Produced Water =	30.00	bbls
Outside Containment		
Approximate Area =	1125.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	1.00	bbls
TOTAL VOLUME OF LEAK		
Total Produced Water =	31.00	bbls
TOTAL VOLUME RECOVERED		
Total Produced Water =	30.00	bbls

Incident ID	NVV2002832621
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' _____ (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

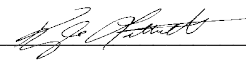
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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	NVV2002832621
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: 7/29/20
email: Kyle_Littrell@xtoenergy.com Telephone: 432-236-3808

OCD Only

Received by: Cristina Eads Date: 09/02/2020

Incident ID	NVV2002832621
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: 7/29/20

email: Kyle_Littrell@xtoenergy.com

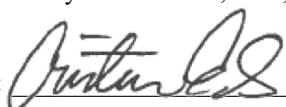
Telephone: 432-236-3808

OCD Only

Received by: Cristina Eads

Date: 09/02/2020

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

Closure Approved by: 

Date: 10/29/2020

Printed Name: Cristina Eads

Title: Environmental Specialist



LT Environmental, Inc.

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

July 27, 2020

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

RE: Closure Request
Remuda North 25 State 906H
Incident Number NVV2002832621
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, remediation, and soil sampling activities at the Remuda North 25 State 906H (Site) located in Unit J, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1) in response to a 31 barrel (bbl) produced water release on January 1, 2020.

Following initial assessment, approximately 217 cubic yards of soil were excavated to depths ranging from 1 foot to 1.75 feet below ground surface (bgs) and properly disposed of at a permitted landfarm. Confirmation soil samples were collected from the excavation extent and indicate concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH), and chloride in the remaining soil were compliant with the site-specific Closure Criteria as specified in Table 1 of 19.15.29 of the New Mexico Administrative Code (NMAC). As a result, XTO respectfully requests Closure and no further action (NFA) for Incident Number NVV2002832621. Please find supplementary details regarding the release, site assessment, remediation, and confirmation sampling in the subsequent form report and attachments.

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

Sincerely,

Elizabeth Naka
Staff Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

CC:

Kyle Littrell, XTO
New Mexico State Land Office
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

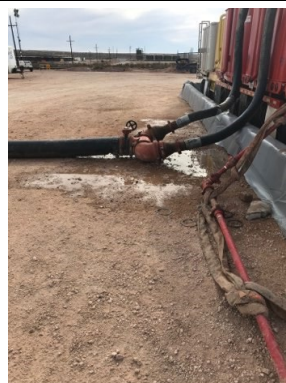
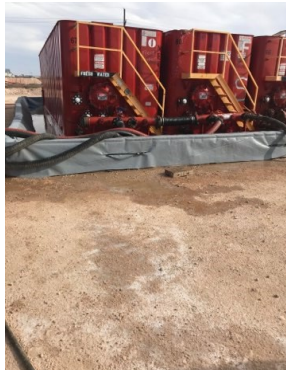
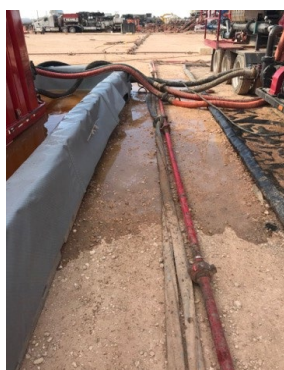
Supplemental Information and Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Laboratory Analytical Reports
Attachment 2	Photographic Log

**BACKGROUND**

The purpose of the site assessment and soil sampling activities was to assess the presence or absence of impacts to soil following a release at the Site. XTO reported the release to NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141).

Release Date	January 1, 2020	RELEASE EXTENT
Lat / Long	32.27484127, -103.93593978	
Location	UNIT J SEC 25 T23S R29E / on well pad	
Surface Owner	State	
Reason For Release	Valve was left open and overfilled the pump down tank	
Volume of Product Released	30 bbls Produced Water in containment; 1 bbl produced water on well pad	
Volume of Product Recovered	30 bbls produced water	
Notification to NMOCD Date	January 16, 2020	

INITIAL PHOTOGRAPHS OF RELEASE

View of areas where containment overflowed

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).

Sensitive Receptor	Distance from Release Extent	Comment(s)	
Depth to Groundwater	USGS Well located 4,854 ft (0.92 mi) North	DTW: 50 feet bgs	
Closest continuously flowing water or significant watercourse	Unnamed dry wash 500ft East-Northeast	N/A	
Lakebed, sinkhole, or playa lake	>200 ft	N/A	
Occupied Residence, school, hospital, institution, church, wet	>500 ft	N/A	
Freshwater well or spring	>1,000 ft	N/A	
100-year flood plain or overlying subsurface mine	N/A	N/A	
Unstable Geology	N/A	Med Karst	

CLOSURE CRITERIA

Constituent	Closure Criteria (mg/kg)	Laboratory Analytical Method ¹
Benzene	10	EPA Method 8021B
Total BTEX	50	EPA Method 8021B
TPH-GRO & TPH-DRO	NE	EPA Method 8015 M/D
TPH	100	EPA Method 8015 M/D
Chloride	600	EPA Method 300.0
Chloride reclamation requirement for off pad	N/A	N/A

FIELD ACTIVITIES AND SOIL SCREENING PROTOCOL

The release extent and soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2. Photographic documentation was conducted before and during excavation activities and is included in Attachment 2.

LTE staff screened soil for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. The PID was calibrated with a 100-ppm by volume isobutylene. Calibration was conducted daily with bump tests conducted throughout the day. In situations where elevated PID readings were recorded consistently, the PID was re-calibrated with 100 ppm isobutylene.

INITIAL SITE ASSESSMENT

Assessment Date(s)	January 21, 2020
Preliminary soil samples collected	SS01- SS06 at approximately 0.5 feet bgs
Analytical Results	All samples exceeded Closure Criteria for TPH and/or chloride
Follow-up Field Activities	Excavation based on field screening results, visual staining, and analytical results of preliminary soil samples

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4°C under strict COC procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico.

ASSESSMENT PHOTOGRAPHS

View of staining on pad

EXCAVATION

Excavation Date(s)	May 7, 2020 to May 11, 2020
Confirmation soil samples collected	FS01- FS21 collected between approximately 1 foot bgs and 1.75 feet bgs
Analytical Results	All compliant with specified Closure Criteria
Follow-up Field Activities	Based on analytical results of confirmation soil samples, no further action appear warranted at this time.
Excavation Dimensions	4,184 square feet
Excavation Volume	217 cubic yards

Confirmation sampling was conducted on a 200 square foot frequency for floor and sidewall samples. Composite soil samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing them. The mixture was divided into two bags; one for field screening and the other for potential laboratory analysis. 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 transported at or below 4°C under strict COC procedures to Xenco.

EXCAVATION PHOTOGRAPHS

View of excavation activities on pad



BACKFILL PHOTOGRAPHS



View of backfill on pad completed June 18, 2020. Recontoured and graded to match well pad surface.

Notes:

bbl(s) - barrels

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

COC - chain of custody

DRO - diesel range organics

DTW - depth to water

EPA - United States Environmental Protection Agency

GPS - global positioning system

GRO - gasoline range organics

mg/kg - milligrams per kilogram

PID - photoionization detector

ppm - parts per million

N/A - not applicable

NM OSE - New Mexico Office of the State Engineer

NMOCD - New Mexico Oil Conservation Division

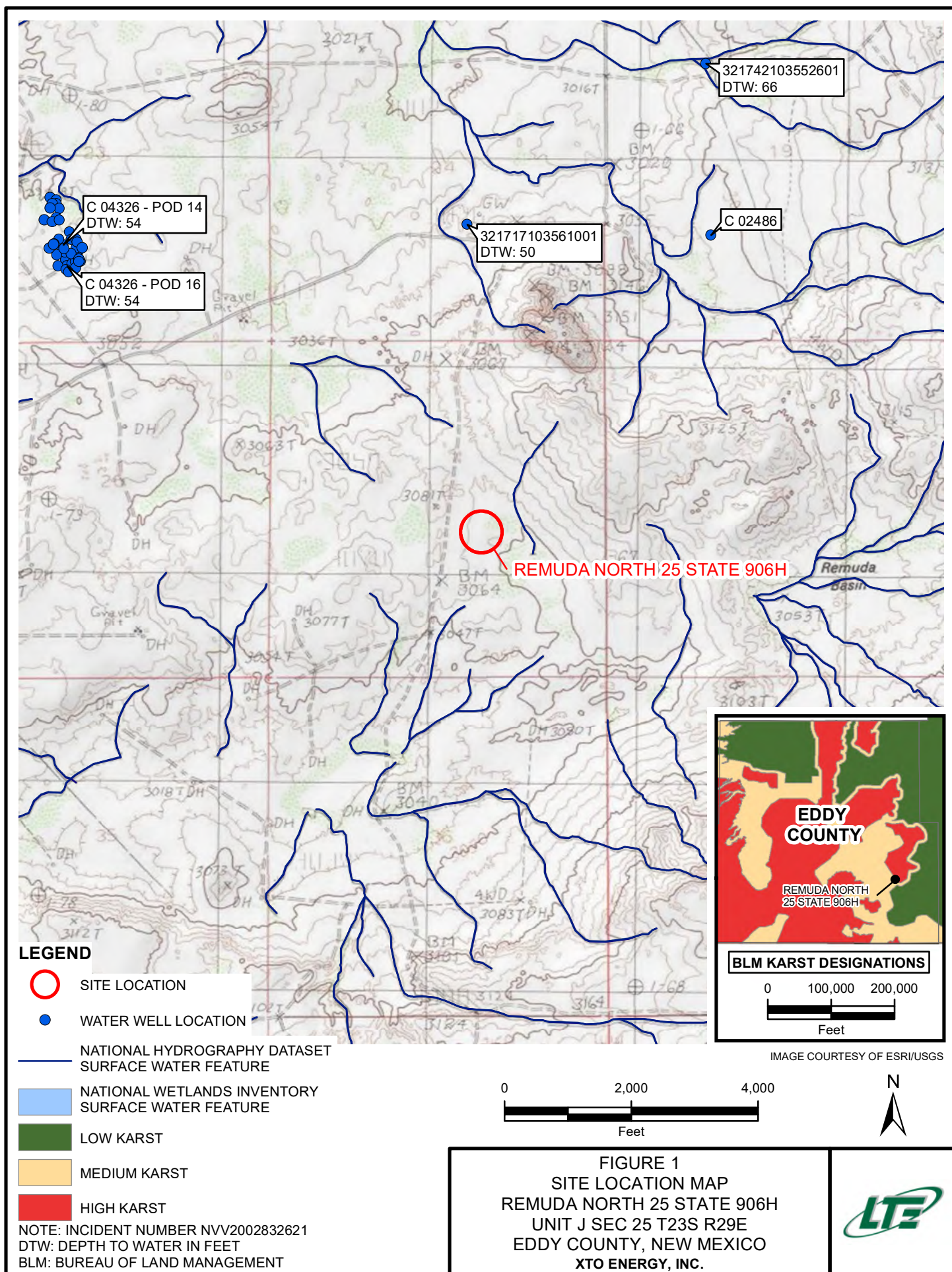
TPH - total petroleum hydrocarbons

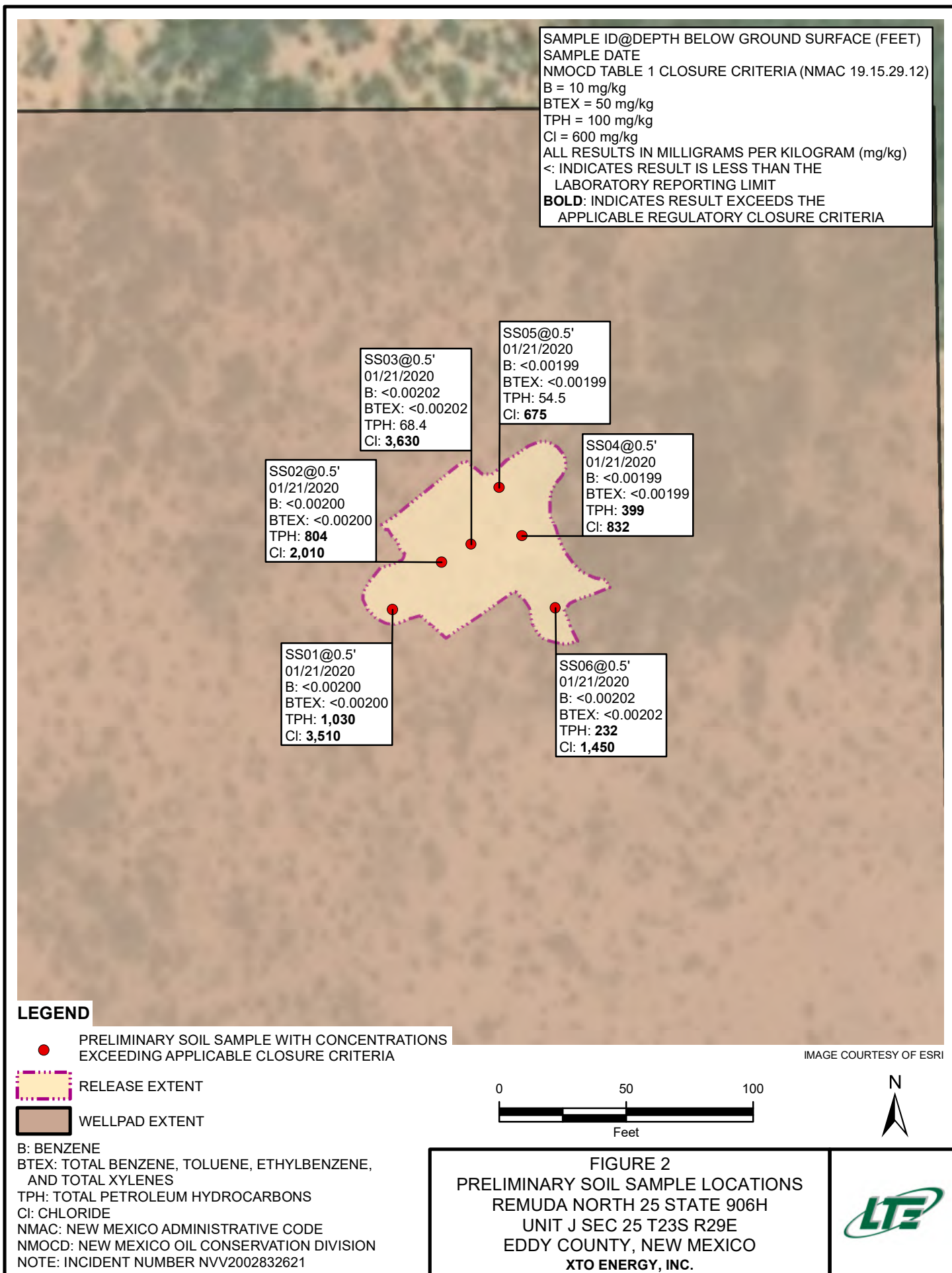
USGS - United States Geological Survey

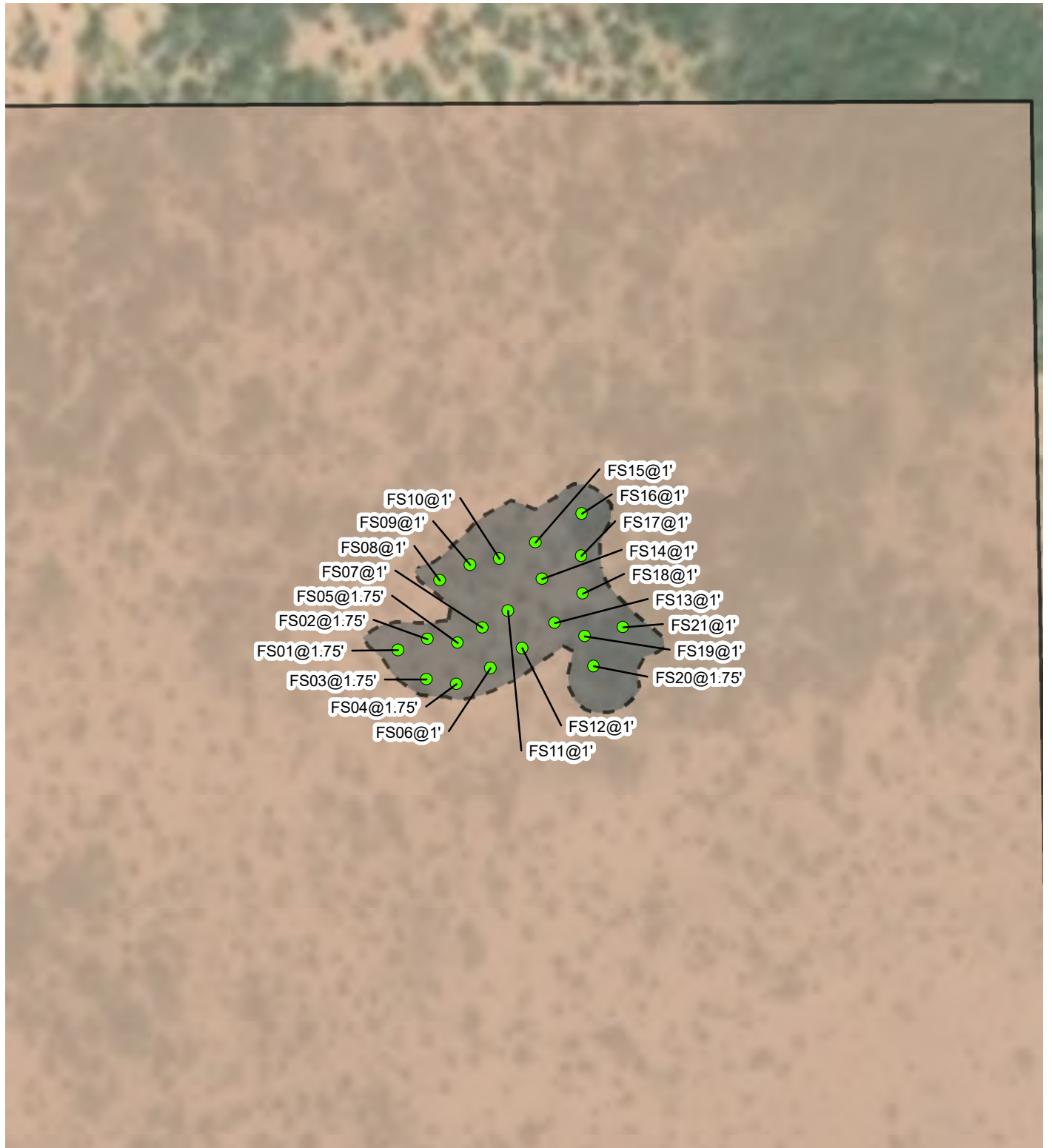
°C - degrees Celsius

FIGURES







**LEGEND**

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT
- WELLPAD EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 NOTE: INCIDENT NUMBER NVV2002832621

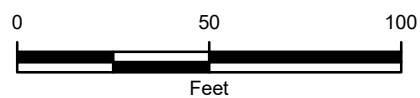


IMAGE COURTESY OF ESRI



FIGURE 3
 EXCAVATION SOIL SAMPLE LOCATIONS
 REMUDA NORTH 25 STATE 906H
 UNIT J SEC 25 T23S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

REMUDA NORTH 25 STATE 906H
INCIDENT NUMBER NVV2002832621
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	NE	100	600
SS01	0.5	01/21/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	1,030	<50.0	1,030	1,030	3,510
SS02	0.5	01/21/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	700	104	700	804	2,010
SS03	0.5	01/21/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	68.4	<49.9	68.4	68.4	3,630
SS04	0.5	01/21/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	399	<50.0	399	399	832
SS05	0.5	01/21/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	54.5	<49.8	54.5	54.5	675
SS06	0.5	01/21/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	232	<49.9	232	232	1,450
FS01	1.75	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	29.4
FS02	1.75	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	16.8
FS03	1.75	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	67.7
FS04	1.75	05/13/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	19.0
FS05	1.75	05/13/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	30.8
FS06	1	05/13/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	220
FS07	1	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	102
FS08	1	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	51.2
FS09	1	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	64.9
FS10	1	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	60.0
FS11	1	05/13/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	76.4
FS12	1	05/13/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	89.0
FS13	1	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	77.8
FS14	1	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	63.1
FS15	1	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	65.7
FS16	1	05/13/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	53.6
FS17	1	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	50.2



A proud member
of WSP

TABLE 1
SOIL ANALYTICAL RESULTS

REMUDA NORTH 25 STATE 906H
INCIDENT NUMBER NVV2002832621
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	NE	100	600
FS18	1	05/13/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	77.1
FS19	1	05/13/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	69.6
FS20	1.75	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	26.0
FS21	1	05/13/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	90.5

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

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

TEXT - indicates soil was removed during excavation activities

ATTACHMENT 1: LABORATORY ANALYTICAL REPORTS



Analytical Report 649821

for
LT Environmental, Inc.

Project Manager: Dan Moir

Remuda N 25 State 9034

012920008

30-JAN-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

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

Xenco-Dallas (EPA Lab Code: TX01468):

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

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

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

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

Xenco-Carlsbad (LELAP): Louisiana (05092)

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

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

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



30-JAN-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **649821**

Remuda N 25 State 9034

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 649821. 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. 649821 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 Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 649821****LT Environmental, Inc., Arvada, CO**

Remuda N 25 State 9034

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	01-21-20 14:25	0.5 ft	649821-001
SS02	S	01-21-20 14:30	0.5 ft	649821-002
SS03	S	01-21-20 14:35	0.5 ft	649821-003
SS04	S	01-21-20 14:40	0.5 ft	649821-004
SS05	S	01-21-20 14:45	0.5 ft	649821-005
SS06	S	01-21-20 14:50	0.5 ft	649821-006



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda N 25 State 9034

Project ID: 012920008
Work Order Number(s): 649821

Report Date: 30-JAN-20
Date Received: 01/21/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114937 BTEX by EPA 8021B

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



Certificate of Analysis Summary 649821

LT Environmental, Inc., Arvada, CO

Project Name: Remuda N 25 State 9034

Project Id: 012920008

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Tue Jan-21-20 04:38 pm

Report Date: 30-JAN-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	649821-001	649821-002	649821-003	649821-004	649821-005	649821-006
	Field Id:	SS01	SS02	SS03	SS04	SS05	SS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jan-21-20 14:25	Jan-21-20 14:30	Jan-21-20 14:35	Jan-21-20 14:40	Jan-21-20 14:45	Jan-21-20 14:50
BTEX by EPA 8021B SUB: T104704400-19-19	Extracted:	Jan-29-20 11:30	Jan-29-20 11:30	Jan-29-20 11:30	Jan-29-20 11:30	Jan-29-20 11:30	Jan-29-20 11:30
	Analyzed:	Jan-30-20 06:51	Jan-30-20 07:11	Jan-30-20 08:31	Jan-30-20 08:51	Jan-30-20 09:11	Jan-30-20 09:31
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
	Toluene	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401	<0.00403 0.00403	<0.00398 0.00398	<0.00398 0.00398	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202
Chloride by EPA 300 SUB: T104704400-19-19	Extracted:	Jan-23-20 17:30	Jan-23-20 17:30	Jan-23-20 17:30	Jan-23-20 17:30	Jan-23-20 17:30	Jan-23-20 17:30
	Analyzed:	Jan-24-20 00:15	Jan-24-20 00:22	Jan-24-20 00:42	Jan-24-20 00:48	Jan-24-20 00:55	Jan-24-20 01:02
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	3510 49.6	2010 25.0	3630 49.9	832 25.2	675 25.1	1450 24.8
TPH by SW8015 Mod SUB: T104704400-19-19	Extracted:	Jan-25-20 08:00	Jan-25-20 08:00	Jan-25-20 08:00	Jan-25-20 08:00	Jan-25-20 08:00	Jan-24-20 10:00
	Analyzed:	Jan-25-20 12:35	Jan-25-20 13:38	Jan-25-20 13:59	Jan-25-20 14:20	Jan-25-20 14:42	Jan-25-20 06:01
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
	Diesel Range Organics (DRO)	1030 50.0	700 50.0	68.4 49.9	399 50.0	54.5 49.8	232 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	104 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8	<49.9 49.9
Total GRO-DRO		1030 50.0	700 50.0	68.4 49.9	399 50.0	54.5 49.8	232 49.9
Total TPH		1030 50.0	804 50.0	68.4 49.9	399 50.0	54.5 49.8	232 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 Assistant



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS01**
Lab Sample Id: 649821-001

Matrix: Soil
Date Collected: 01.21.20 14.25

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3114313

Date Prep: 01.23.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3510	49.6	mg/kg	01.24.20 00.15		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3114506

Date Prep: 01.25.20 08.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 12.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	1030	50.0	mg/kg	01.25.20 12.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.25.20 12.35	U	1
Total GRO-DRO	PHC628	1030	50.0	mg/kg	01.25.20 12.35		1
Total TPH	PHC635	1030	50.0	mg/kg	01.25.20 12.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	01.25.20 12.35	
o-Terphenyl	84-15-1	112	%	70-135	01.25.20 12.35	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS01**
Lab Sample Id: 649821-001

Matrix: Soil
Date Collected: 01.21.20 14.25

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.20 06.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.20 06.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.30.20 06.51		
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.30.20 06.51		



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS02**
Lab Sample Id: 649821-002

Matrix: Soil
Date Collected: 01.21.20 14.30

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3114313

Date Prep: 01.23.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2010	25.0	mg/kg	01.24.20 00.22		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3114506

Date Prep: 01.25.20 08.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 13.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	700	50.0	mg/kg	01.25.20 13.38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	104	50.0	mg/kg	01.25.20 13.38		1
Total GRO-DRO	PHC628	700	50.0	mg/kg	01.25.20 13.38		1
Total TPH	PHC635	804	50.0	mg/kg	01.25.20 13.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	01.25.20 13.38	
o-Terphenyl	84-15-1	121	%	70-135	01.25.20 13.38	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: SS02
Lab Sample Id: 649821-002

Matrix: Soil
Date Collected: 01.21.20 14.30

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.20 07.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.20 07.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.30.20 07.11		
1,4-Difluorobenzene	540-36-3	114	%	70-130	01.30.20 07.11		



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS03**
Lab Sample Id: 649821-003

Matrix: Soil
Date Collected: 01.21.20 14.35

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3114313

Date Prep: 01.23.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3630	49.9	mg/kg	01.24.20 00.42		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3114506

Date Prep: 01.25.20 08.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.25.20 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.4	49.9	mg/kg	01.25.20 13.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.25.20 13.59	U	1
Total GRO-DRO	PHC628	68.4	49.9	mg/kg	01.25.20 13.59		1
Total TPH	PHC635	68.4	49.9	mg/kg	01.25.20 13.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.25.20 13.59	
o-Terphenyl	84-15-1	120	%	70-135	01.25.20 13.59	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS03**
Lab Sample Id: 649821-003

Matrix: Soil
Date Collected: 01.21.20 14.35

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.30.20 08.31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.30.20 08.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.30.20 08.31		
4-Bromofluorobenzene	460-00-4	76	%	70-130	01.30.20 08.31		



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS04**
Lab Sample Id: 649821-004

Matrix: Soil
Date Collected: 01.21.20 14.40

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3114313

Date Prep: 01.23.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	832	25.2	mg/kg	01.24.20 00.48		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3114506

Date Prep: 01.25.20 08.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 14.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	399	50.0	mg/kg	01.25.20 14.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.25.20 14.20	U	1
Total GRO-DRO	PHC628	399	50.0	mg/kg	01.25.20 14.20		1
Total TPH	PHC635	399	50.0	mg/kg	01.25.20 14.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	01.25.20 14.20	
o-Terphenyl	84-15-1	125	%	70-135	01.25.20 14.20	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS04**
Lab Sample Id: 649821-004

Matrix: Soil
Date Collected: 01.21.20 14.40

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.20 08.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.20 08.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.30.20 08.51		
4-Bromofluorobenzene	460-00-4	80	%	70-130	01.30.20 08.51		



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: SS05
Lab Sample Id: 649821-005

Matrix: Soil
Date Collected: 01.21.20 14.45

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3114313

Date Prep: 01.23.20 17.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	675	25.1	mg/kg	01.24.20 00.55		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3114506

Date Prep: 01.25.20 08.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.25.20 14.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	54.5	49.8	mg/kg	01.25.20 14.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.25.20 14.42	U	1
Total GRO-DRO	PHC628	54.5	49.8	mg/kg	01.25.20 14.42		1
Total TPH	PHC635	54.5	49.8	mg/kg	01.25.20 14.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	01.25.20 14.42	
o-Terphenyl	84-15-1	125	%	70-135	01.25.20 14.42	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: SS05
Lab Sample Id: 649821-005

Matrix: Soil
Date Collected: 01.21.20 14.45

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.20 09.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.20 09.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.30.20 09.11		
4-Bromofluorobenzene	460-00-4	73	%	70-130	01.30.20 09.11		



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS06** Matrix: Soil Date Received: 01.21.20 16.38
 Lab Sample Id: 649821-006 Date Collected: 01.21.20 14.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 01.23.20 17.30 Basis: Wet Weight
 Seq Number: 3114313 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	24.8	mg/kg	01.24.20 01.02		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 01.24.20 10.00 Basis: Wet Weight
 Seq Number: 3114492 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.25.20 06.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	232	49.9	mg/kg	01.25.20 06.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.25.20 06.01	U	1
Total GRO-DRO	PHC628	232	49.9	mg/kg	01.25.20 06.01		1
Total TPH	PHC635	232	49.9	mg/kg	01.25.20 06.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	01.25.20 06.01	
o-Terphenyl	84-15-1	119	%	70-135	01.25.20 06.01	



Certificate of Analytical Results 649821

LT Environmental, Inc., Arvada, CO

Remuda N 25 State 9034

Sample Id: **SS06**
Lab Sample Id: 649821-006

Matrix: Soil
Date Collected: 01.21.20 14.50

Date Received: 01.21.20 16.38
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3114937

Prep Method: SW5030B

% Moisture:

Date Prep: 01.29.20 11.30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.30.20 09.31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.30.20 09.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	01.30.20 09.31		
1,4-Difluorobenzene	540-36-3	110	%	70-130	01.30.20 09.31		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Remuda N 25 State 9034

Analytical Method: Chloride by EPA 300

Seq Number: 3114313

MB Sample Id: 7695086-1-BLK

Matrix: Solid

LCS Sample Id: 7695086-1-BKS

Prep Method: E300P

Date Prep: 01.23.20

LCSD Sample Id: 7695086-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	241	96	242	97	90-110	0	20	mg/kg	01.23.20 22:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3114313

Parent Sample Id: 649964-006

Matrix: Soil

MS Sample Id: 649964-006 S

Prep Method: E300P

Date Prep: 01.23.20

MSD Sample Id: 649964-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	137	250	416	112	412	110	90-110	1	20	mg/kg	01.23.20 22:29	X

Analytical Method: Chloride by EPA 300

Seq Number: 3114313

Parent Sample Id: 649965-008

Matrix: Soil

MS Sample Id: 649965-008 S

Prep Method: E300P

Date Prep: 01.23.20

MSD Sample Id: 649965-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	871	252	1110	95	1110	95	90-110	0	20	mg/kg	01.24.20 00:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114492

MB Sample Id: 7695211-1-BLK

Matrix: Solid

LCS Sample Id: 7695211-1-BKS

Prep Method: SW8015P

Date Prep: 01.24.20

LCSD Sample Id: 7695211-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	958	96	910	91	70-135	5	20	mg/kg	01.24.20 21:35	
Diesel Range Organics (DRO)	<15.0	1000	1060	106	975	98	70-135	8	20	mg/kg	01.24.20 21:35	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		111		103		70-135	%	01.24.20 21:35
o-Terphenyl	110		114		107		70-135	%	01.24.20 21:35

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Remuda N 25 State 9034

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114506

MB Sample Id: 7695225-1-BLK

Matrix: Solid

LCS Sample Id: 7695225-1-BKS

Prep Method: SW8015P

Date Prep: 01.25.20

LCSD Sample Id: 7695225-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	924	92	905	91	70-135	2	20	mg/kg	01.25.20 11:53	
Diesel Range Organics (DRO)	<15.0	1000	986	99	975	98	70-135	1	20	mg/kg	01.25.20 11:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		106		102		70-135	%	01.25.20 11:53
o-Terphenyl	114		110		107		70-135	%	01.25.20 11:53

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114492

Matrix: Solid

MB Sample Id: 7695211-1-BLK

Prep Method: SW8015P

Date Prep: 01.24.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.24.20 21:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114506

Matrix: Solid

MB Sample Id: 7695225-1-BLK

Prep Method: SW8015P

Date Prep: 01.25.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.25.20 11:32	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114492

Matrix: Soil

Parent Sample Id: 649711-001

MS Sample Id: 649711-001 S

Prep Method: SW8015P

Date Prep: 01.24.20

MSD Sample Id: 649711-001 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)	18.3	997	913	90	951	94	70-135	4	20	mg/kg	01.24.20 22:38	
Diesel Range Organics (DRO)	33.8	997	1000	97	1030	100	70-135	3	20	mg/kg	01.24.20 22:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		114		70-135	%	01.24.20 22:38
o-Terphenyl	110		113		70-135	%	01.24.20 22:38

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.

Remuda N 25 State 9034

Analytical Method: TPH by SW8015 Mod

Seq Number: 3114506

Parent Sample Id: 649821-001

Matrix: Soil

MS Sample Id: 649821-001 S

Prep Method: SW8015P

Date Prep: 01.25.20

MSD Sample Id: 649821-001 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)	<15.0	997	830	83	909	90	70-135	9	20	mg/kg	01.25.20 12:56	
Diesel Range Organics (DRO)	1030	997	1880	85	1920	89	70-135	2	20	mg/kg	01.25.20 12:56	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		126		70-135	%	01.25.20 12:56
o-Terphenyl	104		116		70-135	%	01.25.20 12:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3114937

MB Sample Id: 7695438-1-BLK

Matrix: Solid

LCS Sample Id: 7695438-1-BKS

Prep Method: SW5030B

Date Prep: 01.29.20

LCSD Sample Id: 7695438-1-BSO

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.102	102	0.100	100	70-130	2	35	mg/kg	01.30.20 01:50	
Toluene	<0.000456	0.100	0.0972	97	0.0991	99	70-130	2	35	mg/kg	01.30.20 01:50	
Ethylbenzene	<0.000565	0.100	0.0907	91	0.0937	94	70-130	3	35	mg/kg	01.30.20 01:50	
m,p-Xylenes	<0.00101	0.200	0.181	91	0.188	94	70-130	4	35	mg/kg	01.30.20 01:50	
o-Xylene	<0.000344	0.100	0.0924	92	0.0950	95	70-130	3	35	mg/kg	01.30.20 01:50	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		102		70-130	%	01.30.20 01:50
4-Bromofluorobenzene	90		95		92		70-130	%	01.30.20 01:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3114937

Parent Sample Id: 649818-001

Matrix: Soil

MS Sample Id: 649818-001 S

Prep Method: SW5030B

Date Prep: 01.29.20

MSD Sample Id: 649818-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0811	81	0.0751	76	70-130	8	35	mg/kg	01.30.20 02:30	
Toluene	0.000940	0.0996	0.0702	70	0.0679	68	70-130	3	35	mg/kg	01.30.20 02:30	X
Ethylbenzene	<0.000563	0.0996	0.0695	70	0.0622	63	70-130	11	35	mg/kg	01.30.20 02:30	X
m,p-Xylenes	<0.00101	0.199	0.0636	32	0.0634	32	70-130	0	35	mg/kg	01.30.20 02:30	X
o-Xylene	<0.000343	0.0996	0.0648	65	0.0578	58	70-130	11	35	mg/kg	01.30.20 02:30	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		109		70-130	%	01.30.20 02:30
4-Bromofluorobenzene	84		88		70-130	%	01.30.20 02:30

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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 382-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

www.xenco.com

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	enaka@ltenv.com, dmoir@ltenv.com

Work Order Comments	
Program: UST/PST	☐ RP ☐ Growfields ☐ RC ☐ Spertund
State of Project:	
Reporting: Level II	☐ Level III ☐ PT/UST ☐ RP ☐ Level IV
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	Remucka N 25 State 9034	Turn Around	
Project Number:	01292008	Routine	☒
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
	Temperature (°C):	0.4	Thermometer ID	T-NH-001
	Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.3
	Cooler Custody Seals:	Yes ☐ No ☒ N/A	Total Containers:	6
	Sample Custody Seals:	Yes ☐ No ☒ N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
SS01	S	1/21/20	1425	0.5'	X	X	X	X
SS02	S	1/21/20	1430	1'	X	X	X	X
SS03	S	1/21/20	1435	1.5'	X	X	X	X
SS04	S	1/21/20	1440	2'	X	X	X	X
SS05	S	1/21/20	1445	2.5'	X	X	X	X
SS06	S	1/21/20	1450	3'	X	X	X	X

ANALYSIS REQUEST																Work Order Notes
																TAT starts the day received by the lab, if received by 4:30pm
																Sample Comments
																discuss

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elaine W</i>	<i>[Signature]</i>	1/21/20 10:38			



Inter-Office Shipment

Page 1 of 1

IOS Number **56549**

Date/Time: 01/22/20 11:47

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 777580852397

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
649821-001	S	SS01	01/21/20 14:25	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-001	S	SS01	01/21/20 14:25	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	
649821-001	S	SS01	01/21/20 14:25	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-002	S	SS02	01/21/20 14:30	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-002	S	SS02	01/21/20 14:30	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-002	S	SS02	01/21/20 14:30	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	
649821-003	S	SS03	01/21/20 14:35	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	
649821-003	S	SS03	01/21/20 14:35	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-003	S	SS03	01/21/20 14:35	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-004	S	SS04	01/21/20 14:40	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	
649821-004	S	SS04	01/21/20 14:40	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-004	S	SS04	01/21/20 14:40	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-005	S	SS05	01/21/20 14:45	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-005	S	SS05	01/21/20 14:45	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-005	S	SS05	01/21/20 14:45	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	
649821-006	S	SS06	01/21/20 14:50	SW8015MOD_NM	TPH by SW8015 Mod	01/27/20	02/04/20	JKR	GRO-DRO PHCC10C28 PF	
649821-006	S	SS06	01/21/20 14:50	E300_CL	Chloride by EPA 300	01/27/20	02/18/20	JKR	CL	
649821-006	S	SS06	01/21/20 14:50	SW8021B	BTEX by EPA 8021B	01/27/20	02/04/20	JKR	BZ BZME EBZ XYLENES	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 01/22/2020

Received By:

Brianna Teel

Date Received: 01/23/2020 11:19

Cooler Temperature: 0.3



Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 56549

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 01/22/2020 11:47 AM

Received By: Brianna Teel

Date Received: 01/23/2020 11:19 AM

Sample Receipt Checklist

Comments

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Date: 01/23/2020



Client: LT Environmental, Inc.

Date/ Time Received: 01/21/2020 04:38:00 PM

Work Order #: 649821

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 01/22/2020

Checklist reviewed by:

Jessica Kramer

Date: 01/23/2020



Certificate of Analysis Summary 661686

LT Environmental, Inc., Arvada, CO

Project Name: Remuda North State 906H

Project Id: 012920008

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.14.2020 16:48

Report Date: 05.18.2020 14:05

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661686-001	661686-002	661686-003	661686-004	661686-005	661686-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	1.75- ft	1.75- ft	1.75- ft	1.75- ft	1.75- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.13.2020 10:25	05.13.2020 10:27	05.13.2020 10:29	05.13.2020 10:33	05.13.2020 10:35	05.13.2020 11:15
BTEX by EPA 8021B	<i>Extracted:</i>	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54
	<i>Analyzed:</i>	05.15.2020 14:07	05.15.2020 14:28	05.15.2020 14:48	05.15.2020 15:09	05.15.2020 15:29	05.15.2020 15:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10
	<i>Analyzed:</i>	05.15.2020 14:22	05.15.2020 14:39	05.15.2020 14:45	05.15.2020 15:03	05.15.2020 15:09	05.15.2020 15:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		29.4 9.94	16.8 9.98	67.7 9.98	19.0 9.94	30.8 10.0	220 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30
	<i>Analyzed:</i>	05.16.2020 04:17	05.16.2020 04:38	05.15.2020 19:43	05.15.2020 20:45	05.15.2020 21:05	05.15.2020 21:25
	<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)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.1 50.1	<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<50.1 50.1	<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2
Total TPH		<50.1 50.1	<50.1 50.1	<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661686

LT Environmental, Inc., Arvada, CO

Project Name: Remuda North State 906H

Project Id: 012920008

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.14.2020 16:48

Report Date: 05.18.2020 14:05

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661686-007	661686-008	661686-009	661686-010	661686-011	661686-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	FS12
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.13.2020 11:18	05.13.2020 11:19	05.13.2020 11:22	05.13.2020 11:24	05.13.2020 11:26	05.13.2020 11:31
BTEX by EPA 8021B	<i>Extracted:</i>	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54
	<i>Analyzed:</i>	05.15.2020 16:10	05.15.2020 16:30	05.15.2020 16:51	05.15.2020 17:11	05.15.2020 18:12	05.15.2020 18:33
	<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	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401	<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403	<0.00396 0.00396
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 12:10	05.15.2020 15:12	05.15.2020 15:12
	<i>Analyzed:</i>	05.15.2020 15:21	05.15.2020 15:26	05.15.2020 15:32	05.15.2020 15:38	05.15.2020 16:14	05.15.2020 16:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		102 10.1	51.2 10.1	64.9 9.92	60.0 10.1	76.4 10.0	89.0 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30
	<i>Analyzed:</i>	05.15.2020 21:46	05.15.2020 22:07	05.15.2020 22:28	05.15.2020 22:48	05.15.2020 23:09	05.15.2020 23:30
	<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)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.2 50.2	<49.8 49.8	<50.3 50.3
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.2 50.2	<49.8 49.8	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.2 50.2	<49.8 49.8	<50.3 50.3
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.2 50.2	<49.8 49.8	<50.3 50.3
Total TPH		<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.2 50.2	<49.8 49.8	<50.3 50.3

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 661686

LT Environmental, Inc., Arvada, CO

Project Name: Remuda North State 906H

Project Id: 012920008

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.14.2020 16:48

Report Date: 05.18.2020 14:05

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	661686-013	661686-014	661686-015	661686-016	661686-017	661686-018
	Field Id:	FS13	FS14	FS15	FS16	FS17	FS18
	Depth:	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.13.2020 11:33	05.13.2020 11:35	05.13.2020 11:37	05.13.2020 11:39	05.13.2020 11:41	05.13.2020 11:43
BTEX by EPA 8021B	Extracted:	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 10:54
	Analyzed:	05.15.2020 18:53	05.15.2020 19:13	05.15.2020 19:34	05.15.2020 19:54	05.15.2020 20:15	05.15.2020 20:35
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Extracted:	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12
	Analyzed:	05.15.2020 16:37	05.15.2020 16:43	05.15.2020 16:49	05.15.2020 17:06	05.15.2020 17:12	05.15.2020 17:18
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		77.8 10.0	63.1 9.96	65.7 10.0	53.6 10.0	50.2 10.0	77.1 9.92
TPH by SW8015 Mod	Extracted:	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30
	Analyzed:	05.16.2020 00:11	05.16.2020 00:32	05.16.2020 00:53	05.16.2020 01:13	05.16.2020 01:33	05.16.2020 01:54
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.2 50.2
Total TPH		<50.1 50.1	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.2 50.2

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661686

LT Environmental, Inc., Arvada, CO

Project Name: Remuda North State 906H

Project Id: 012920008

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.14.2020 16:48

Report Date: 05.18.2020 14:05

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	661686-019	661686-020	661686-021			
	Field Id:	FS19	FS20	FS21			
	Depth:	1- ft	1.75- ft	1- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	05.13.2020 11:45	05.13.2020 13:05	05.13.2020 11:48			
BTEX by EPA 8021B	Extracted:	05.15.2020 10:54	05.15.2020 10:54	05.15.2020 11:07			
	Analyzed:	05.15.2020 20:55	05.15.2020 21:16	05.15.2020 14:40			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
	Benzene	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
	Toluene	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00401 0.00401			
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12			
	Analyzed:	05.15.2020 17:24	05.15.2020 17:30	05.15.2020 17:36			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
	Chloride	69.6 9.96	26.0 9.96	90.5 9.98			
TPH by SW8015 Mod	Extracted:	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30			
	Analyzed:	05.16.2020 02:14	05.16.2020 02:35	05.16.2020 02:55			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2	<50.1 50.1	<50.2 50.2			
	Diesel Range Organics (DRO)	<50.2 50.2	<50.1 50.1	<50.2 50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.2 50.2			
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.2 50.2			
Total TPH		<50.2 50.2	<50.1 50.1	<50.2 50.2			

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

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

Jessica Kramer
Project Manager



Analytical Report 661686

for

LT Environmental, Inc.

Project Manager: Dan Moir

Remuda North State 906H

012920008

05.18.2020

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)



05.18.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **661686**

Remuda North State 906H

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661686. 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. 661686 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 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	05.13.2020 10:25	1.75 ft	661686-001
FS02	S	05.13.2020 10:27	1.75 ft	661686-002
FS03	S	05.13.2020 10:29	1.75 ft	661686-003
FS04	S	05.13.2020 10:33	1.75 ft	661686-004
FS05	S	05.13.2020 10:35	1.75 ft	661686-005
FS06	S	05.13.2020 11:15	1 ft	661686-006
FS07	S	05.13.2020 11:18	1 ft	661686-007
FS08	S	05.13.2020 11:19	1 ft	661686-008
FS09	S	05.13.2020 11:22	1 ft	661686-009
FS10	S	05.13.2020 11:24	1 ft	661686-010
FS11	S	05.13.2020 11:26	1 ft	661686-011
FS12	S	05.13.2020 11:31	1 ft	661686-012
FS13	S	05.13.2020 11:33	1 ft	661686-013
FS14	S	05.13.2020 11:35	1 ft	661686-014
FS15	S	05.13.2020 11:37	1 ft	661686-015
FS16	S	05.13.2020 11:39	1 ft	661686-016
FS17	S	05.13.2020 11:41	1 ft	661686-017
FS18	S	05.13.2020 11:43	1 ft	661686-018
FS19	S	05.13.2020 11:45	1 ft	661686-019
FS20	S	05.13.2020 13:05	1.75 ft	661686-020
FS21	S	05.13.2020 11:48	1 ft	661686-021



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Remuda North State 906H

Project ID: 012920008
Work Order Number(s): 661686

Report Date: 05.18.2020
Date Received: 05.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS01**
Lab Sample Id: 661686-001

Matrix: Soil
Date Collected: 05.13.2020 10:25

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.4	9.94	mg/kg	05.15.2020 14:22		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126202

Date Prep: 05.15.2020 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	05.16.2020 04:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 04:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 04:17	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 04:17	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 04:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.16.2020 04:17	
o-Terphenyl	84-15-1	110	%	70-135	05.16.2020 04:17	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS01**
Lab Sample Id: 661686-001

Matrix: Soil
Date Collected: 05.13.2020 10:25

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 14:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 14:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.15.2020 14:07	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 14:07	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS02**
Lab Sample Id: 661686-002

Matrix: Soil
Date Collected: 05.13.2020 10:27

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.8	9.98	mg/kg	05.15.2020 14:39		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126202

Date Prep: 05.15.2020 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	05.16.2020 04:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 04:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 04:38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 04:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 04:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.16.2020 04:38	
o-Terphenyl	84-15-1	110	%	70-135	05.16.2020 04:38	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS02**
Lab Sample Id: 661686-002

Matrix: Soil
Date Collected: 05.13.2020 10:27

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 14:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 14:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.15.2020 14:28		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 14:28		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS03**
Lab Sample Id: 661686-003

Matrix: Soil
Date Collected: 05.13.2020 10:29

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.7	9.98	mg/kg	05.15.2020 14:45		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 19:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.15.2020 19:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.15.2020 19:43	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.15.2020 19:43	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.15.2020 19:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.15.2020 19:43	
o-Terphenyl	84-15-1	112	%	70-135	05.15.2020 19:43	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS03**
Lab Sample Id: 661686-003

Matrix: Soil
Date Collected: 05.13.2020 10:29

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 14:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 14:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 14:48		
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.15.2020 14:48		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS04**
Lab Sample Id: 661686-004

Matrix: Soil
Date Collected: 05.13.2020 10:33

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.0	9.94	mg/kg	05.15.2020 15:03		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 20:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.15.2020 20:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.15.2020 20:45	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.15.2020 20:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.15.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.15.2020 20:45	
o-Terphenyl	84-15-1	116	%	70-135	05.15.2020 20:45	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS04**
Lab Sample Id: 661686-004

Matrix: Soil
Date Collected: 05.13.2020 10:33

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 15:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 15:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 15:09	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 15:09	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS05**
Lab Sample Id: 661686-005

Matrix: Soil
Date Collected: 05.13.2020 10:35

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.8	10.0	mg/kg	05.15.2020 15:09		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 21:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.15.2020 21:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.15.2020 21:05	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.15.2020 21:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.15.2020 21:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.15.2020 21:05	
o-Terphenyl	84-15-1	117	%	70-135	05.15.2020 21:05	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS05**
Lab Sample Id: 661686-005

Matrix: Soil
Date Collected: 05.13.2020 10:35

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 15:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.15.2020 15:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.15.2020 15:29		
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.15.2020 15:29		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS06**
Lab Sample Id: 661686-006

Matrix: Soil
Date Collected: 05.13.2020 11:15

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	220	10.0	mg/kg	05.15.2020 15:15		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 21:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.15.2020 21:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.15.2020 21:25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.15.2020 21:25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.15.2020 21:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.15.2020 21:25	
o-Terphenyl	84-15-1	119	%	70-135	05.15.2020 21:25	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS06**
Lab Sample Id: 661686-006

Matrix: Soil
Date Collected: 05.13.2020 11:15

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 15:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.15.2020 15:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.15.2020 15:50	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 15:50	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS07**
Lab Sample Id: 661686-007

Matrix: Soil
Date Collected: 05.13.2020 11:18

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	10.1	mg/kg	05.15.2020 15:21		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 21:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.15.2020 21:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.15.2020 21:46	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.15.2020 21:46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.15.2020 21:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.15.2020 21:46	
o-Terphenyl	84-15-1	106	%	70-135	05.15.2020 21:46	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS07**
Lab Sample Id: 661686-007

Matrix: Soil
Date Collected: 05.13.2020 11:18

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 16:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 16:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 16:10	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 16:10	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS08**
Lab Sample Id: 661686-008

Matrix: Soil
Date Collected: 05.13.2020 11:19

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.2	10.1	mg/kg	05.15.2020 15:26		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 22:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.15.2020 22:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.15.2020 22:07	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.15.2020 22:07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.15.2020 22:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.15.2020 22:07	
o-Terphenyl	84-15-1	117	%	70-135	05.15.2020 22:07	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS08**
Lab Sample Id: 661686-008

Matrix: Soil
Date Collected: 05.13.2020 11:19

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 16:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 16:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.15.2020 16:30	
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.15.2020 16:30	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS09**
Lab Sample Id: 661686-009

Matrix: Soil
Date Collected: 05.13.2020 11:22

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.9	9.92	mg/kg	05.15.2020 15:32		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 22:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.15.2020 22:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.15.2020 22:28	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.15.2020 22:28	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.15.2020 22:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.15.2020 22:28	
o-Terphenyl	84-15-1	118	%	70-135	05.15.2020 22:28	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS09**
Lab Sample Id: 661686-009

Matrix: Soil
Date Collected: 05.13.2020 11:22

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.15.2020 16:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 16:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 16:51	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.15.2020 16:51	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS10**
Lab Sample Id: 661686-010

Matrix: Soil
Date Collected: 05.13.2020 11:24

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126175

Date Prep: 05.15.2020 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.0	10.1	mg/kg	05.15.2020 15:38		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 22:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.15.2020 22:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.15.2020 22:48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.15.2020 22:48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.15.2020 22:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	05.15.2020 22:48	
o-Terphenyl	84-15-1	119	%	70-135	05.15.2020 22:48	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS10**
Lab Sample Id: 661686-010

Matrix: Soil
Date Collected: 05.13.2020 11:24

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 17:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 17:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.15.2020 17:11		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 17:11		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS11**
Lab Sample Id: 661686-011

Matrix: Soil
Date Collected: 05.13.2020 11:26

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.4	10.0	mg/kg	05.15.2020 16:14		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 23:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.15.2020 23:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.15.2020 23:09	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.15.2020 23:09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.15.2020 23:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	05.15.2020 23:09	
o-Terphenyl	84-15-1	116	%	70-135	05.15.2020 23:09	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS11**
Lab Sample Id: 661686-011

Matrix: Soil
Date Collected: 05.13.2020 11:26

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 18:12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 18:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 18:12		
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.15.2020 18:12		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS12**
Lab Sample Id: 661686-012

Matrix: Soil
Date Collected: 05.13.2020 11:31

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.0	10.0	mg/kg	05.15.2020 16:31		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.15.2020 23:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.15.2020 23:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.15.2020 23:30	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.15.2020 23:30	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.15.2020 23:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.15.2020 23:30	
o-Terphenyl	84-15-1	115	%	70-135	05.15.2020 23:30	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS12**
Lab Sample Id: 661686-012

Matrix: Soil
Date Collected: 05.13.2020 11:31

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.15.2020 18:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.15.2020 18:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 18:33	
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.15.2020 18:33	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS13**
Lab Sample Id: 661686-013

Matrix: Soil
Date Collected: 05.13.2020 11:33

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.8	10.0	mg/kg	05.15.2020 16:37		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 00:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 00:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 00:11	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 00:11	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 00:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 00:11	
o-Terphenyl	84-15-1	121	%	70-135	05.16.2020 00:11	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS13**
Lab Sample Id: 661686-013

Matrix: Soil
Date Collected: 05.13.2020 11:33

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 18:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 18:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.15.2020 18:53		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 18:53		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS14**
Lab Sample Id: 661686-014

Matrix: Soil
Date Collected: 05.13.2020 11:35

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.1	9.96	mg/kg	05.15.2020 16:43		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 00:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 00:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 00:32	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 00:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 00:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.16.2020 00:32	
o-Terphenyl	84-15-1	126	%	70-135	05.16.2020 00:32	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS14**
Lab Sample Id: 661686-014

Matrix: Soil
Date Collected: 05.13.2020 11:35

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 19:13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 19:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.15.2020 19:13	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 19:13	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS15**
Lab Sample Id: 661686-015

Matrix: Soil
Date Collected: 05.13.2020 11:37

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.7	10.0	mg/kg	05.15.2020 16:49		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 00:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 00:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 00:53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 00:53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 00:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.16.2020 00:53	
o-Terphenyl	84-15-1	123	%	70-135	05.16.2020 00:53	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS15**
Lab Sample Id: 661686-015

Matrix: Soil
Date Collected: 05.13.2020 11:37

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 19:34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 19:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 19:34		
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.15.2020 19:34		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS16**
Lab Sample Id: 661686-016

Matrix: Soil
Date Collected: 05.13.2020 11:39

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	53.6	10.0	mg/kg	05.15.2020 17:06		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 01:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 01:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 01:13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 01:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 01:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.16.2020 01:13	
o-Terphenyl	84-15-1	125	%	70-135	05.16.2020 01:13	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS16**
Lab Sample Id: 661686-016

Matrix: Soil
Date Collected: 05.13.2020 11:39

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 19:54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.15.2020 19:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 19:54	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.15.2020 19:54	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS17**
Lab Sample Id: 661686-017

Matrix: Soil
Date Collected: 05.13.2020 11:41

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.2	10.0	mg/kg	05.15.2020 17:12		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 01:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 01:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 01:33	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 01:33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 01:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 01:33	
o-Terphenyl	84-15-1	123	%	70-135	05.16.2020 01:33	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS17**
Lab Sample Id: 661686-017

Matrix: Soil
Date Collected: 05.13.2020 11:41

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.15.2020 20:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 20:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.15.2020 20:15		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.15.2020 20:15		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS18**
Lab Sample Id: 661686-018

Matrix: Soil
Date Collected: 05.13.2020 11:43

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.1	9.92	mg/kg	05.15.2020 17:18		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 01:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 01:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 01:54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 01:54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 01:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 01:54	
o-Terphenyl	84-15-1	120	%	70-135	05.16.2020 01:54	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS18**
Lab Sample Id: 661686-018

Matrix: Soil
Date Collected: 05.13.2020 11:43

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Seq Number: 3126172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 20:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.15.2020 20:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.15.2020 20:35		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.15.2020 20:35		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS19**
Lab Sample Id: 661686-019

Matrix: Soil
Date Collected: 05.13.2020 11:45

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	69.6	9.96	mg/kg	05.15.2020 17:24		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 02:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 02:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 02:14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 02:14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 02:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 02:14	
o-Terphenyl	84-15-1	119	%	70-135	05.16.2020 02:14	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS19**
Lab Sample Id: 661686-019

Matrix: Soil
Date Collected: 05.13.2020 11:45

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 20:55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 20:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.15.2020 20:55		
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.15.2020 20:55		



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS20**
Lab Sample Id: 661686-020

Matrix: Soil
Date Collected: 05.13.2020 13:05

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.0	9.96	mg/kg	05.15.2020 17:30		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 02:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 02:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 02:35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 02:35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 02:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	05.16.2020 02:35	
o-Terphenyl	84-15-1	124	%	70-135	05.16.2020 02:35	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS20**
Lab Sample Id: 661686-020

Matrix: Soil
Date Collected: 05.13.2020 13:05

Date Received: 05.14.2020 16:48
Sample Depth: 1.75 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126172

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 10:54

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 21:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 21:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.15.2020 21:16	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.15.2020 21:16	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS21**
Lab Sample Id: 661686-021

Matrix: Soil
Date Collected: 05.13.2020 11:48

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.5	9.98	mg/kg	05.15.2020 17:36		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126211

Date Prep: 05.15.2020 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	05.16.2020 02:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 02:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 02:55	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 02:55	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 02:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.16.2020 02:55	
o-Terphenyl	84-15-1	125	%	70-135	05.16.2020 02:55	



Certificate of Analytical Results 661686

LT Environmental, Inc., Arvada, CO

Remuda North State 906H

Sample Id: **FS21**
Lab Sample Id: 661686-021

Matrix: Soil
Date Collected: 05.13.2020 11:48

Date Received: 05.14.2020 16:48
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Date Prep: 05.15.2020 11:07

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 14:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 14:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.15.2020 14:40	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.15.2020 14:40	



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.
Remuda North State 906H

Analytical Method: Chloride by EPA 300

Seq Number: 3126175

MB Sample Id: 7703454-1-BLK

Matrix: Solid

LCS Sample Id: 7703454-1-BKS

Prep Method: E300P

Date Prep: 05.15.2020

LCSD Sample Id: 7703454-1-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	249	100	248	99	90-110	0	20	mg/kg	05.15.2020 12:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

MB Sample Id: 7703455-1-BLK

Matrix: Solid

LCS Sample Id: 7703455-1-BKS

Prep Method: E300P

Date Prep: 05.15.2020

LCSD Sample Id: 7703455-1-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	249	100	248	99	90-110	0	20	mg/kg	05.15.2020 16:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3126175

Parent Sample Id: 661684-006

Matrix: Soil

MS Sample Id: 661684-006 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661684-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5710	202	5900	94	5920	104	90-110	0	20	mg/kg	05.15.2020 13:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3126175

Parent Sample Id: 661686-001

Matrix: Soil

MS Sample Id: 661686-001 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661686-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.4	200	222	96	222	96	90-110	0	20	mg/kg	05.15.2020 14:28	

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

Parent Sample Id: 661686-011

Matrix: Soil

MS Sample Id: 661686-011 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661686-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	76.4	200	272	98	272	98	90-110	0	20	mg/kg	05.15.2020 16:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

Parent Sample Id: 661686-021

Matrix: Soil

MS Sample Id: 661686-021 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661686-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	90.5	199	273	92	274	92	90-110	0	20	mg/kg	05.15.2020 17:42	

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.

Remuda North State 906H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126202

MB Sample Id: 7703509-1-BLK

Matrix: Solid

LCS Sample Id: 7703509-1-BKS

Prep Method: SW8015P

Date Prep: 05.15.2020

LCSD Sample Id: 7703509-1-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	1020	102	924	92	70-135	10	35	mg/kg	05.15.2020 20:24	
Diesel Range Organics (DRO)	<50.0	1000	1180	118	1080	108	70-135	9	35	mg/kg	05.15.2020 20:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		130		122		70-135	%	05.15.2020 20:24
o-Terphenyl	106		129		123		70-135	%	05.15.2020 20:24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126211

MB Sample Id: 7703516-1-BLK

Matrix: Solid

LCS Sample Id: 7703516-1-BKS

Prep Method: SW8015P

Date Prep: 05.15.2020

LCSD Sample Id: 7703516-1-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	989	99	70-135	10	35	mg/kg	05.15.2020 19:01	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1130	113	70-135	7	35	mg/kg	05.15.2020 19:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		133		120		70-135	%	05.15.2020 19:01
o-Terphenyl	114		131		130		70-135	%	05.15.2020 19:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126202

Matrix: Solid

MB Sample Id: 7703509-1-BLK

Prep Method: SW8015P

Date Prep: 05.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.15.2020 20:04	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126211

Matrix: Solid

MB Sample Id: 7703516-1-BLK

Prep Method: SW8015P

Date Prep: 05.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.15.2020 18:41	

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.
Remuda North State 906H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126202

Parent Sample Id: 661721-004

Matrix: Soil

MS Sample Id: 661721-004 S

Prep Method: SW8015P

Date Prep: 05.15.2020

MSD Sample Id: 661721-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	899	90	924	93	70-135	3	35	mg/kg	05.15.2020 21:25	
Diesel Range Organics (DRO)	413	1000	1250	84	1290	88	70-135	3	35	mg/kg	05.15.2020 21:25	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		118		70-135	%	05.15.2020 21:25
o-Terphenyl	122		123		70-135	%	05.15.2020 21:25

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126211

Parent Sample Id: 661686-003

Matrix: Soil

MS Sample Id: 661686-003 S

Prep Method: SW8015P

Date Prep: 05.15.2020

MSD Sample Id: 661686-003 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)	<50.2	1000	1020	102	976	98	70-135	4	35	mg/kg	05.15.2020 20:04	
Diesel Range Organics (DRO)	<50.2	1000	1110	111	1080	108	70-135	3	35	mg/kg	05.15.2020 20:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		94		70-135	%	05.15.2020 20:04
o-Terphenyl	123		74		70-135	%	05.15.2020 20:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126172

MB Sample Id: 7703443-1-BLK

Matrix: Solid

LCS Sample Id: 7703443-1-BKS

Prep Method: SW5035A

Date Prep: 05.15.2020

LCSD Sample Id: 7703443-1-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	0.103	103	0.107	107	70-130	4	35	mg/kg	05.15.2020 12:26	
Toluene	<0.00200	0.100	0.0982	98	0.102	102	70-130	4	35	mg/kg	05.15.2020 12:26	
Ethylbenzene	<0.00200	0.100	0.0934	93	0.0969	97	71-129	4	35	mg/kg	05.15.2020 12:26	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.200	100	70-135	4	35	mg/kg	05.15.2020 12:26	
o-Xylene	<0.00200	0.100	0.0962	96	0.101	101	71-133	5	35	mg/kg	05.15.2020 12:26	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		104		105		70-130	%	05.15.2020 12:26
4-Bromofluorobenzene	98		94		95		70-130	%	05.15.2020 12:26

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.
Remuda North State 906H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126174

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.15.2020

MB Sample Id: 7703451-1-BLK

LCS Sample Id: 7703451-1-BKS

LCSD Sample Id: 7703451-1-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	0.109	109	0.112	112	70-130	3	35	mg/kg	05.15.2020 12:53	
Toluene	<0.00200	0.100	0.0991	99	0.103	103	70-130	4	35	mg/kg	05.15.2020 12:53	
Ethylbenzene	<0.00200	0.100	0.0933	93	0.0963	96	71-129	3	35	mg/kg	05.15.2020 12:53	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.187	94	70-135	3	35	mg/kg	05.15.2020 12:53	
o-Xylene	<0.00200	0.100	0.0928	93	0.0952	95	71-133	3	35	mg/kg	05.15.2020 12:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		111		111		70-130	%	05.15.2020 12:53
4-Bromofluorobenzene	102		96		97		70-130	%	05.15.2020 12:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126172

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.15.2020

Parent Sample Id: 661686-001

MS Sample Id: 661686-001 S

MSD Sample Id: 661686-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.110	110	0.115	115	70-130	4	35	mg/kg	05.15.2020 13:06	
Toluene	<0.00201	0.100	0.104	104	0.110	110	70-130	6	35	mg/kg	05.15.2020 13:06	
Ethylbenzene	<0.00201	0.100	0.0967	97	0.103	103	71-129	6	35	mg/kg	05.15.2020 13:06	
m,p-Xylenes	<0.00402	0.201	0.197	98	0.211	106	70-135	7	35	mg/kg	05.15.2020 13:06	
o-Xylene	<0.00201	0.100	0.0987	99	0.105	105	71-133	6	35	mg/kg	05.15.2020 13:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		70-130	%	05.15.2020 13:06
4-Bromofluorobenzene	94		92		70-130	%	05.15.2020 13:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126174

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.15.2020

Parent Sample Id: 661686-021

MS Sample Id: 661686-021 S

MSD Sample Id: 661686-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.128	128	0.115	115	70-130	11	35	mg/kg	05.15.2020 13:35	
Toluene	<0.00200	0.0998	0.117	117	0.104	104	70-130	12	35	mg/kg	05.15.2020 13:35	
Ethylbenzene	<0.00200	0.0998	0.109	109	0.0972	98	71-129	11	35	mg/kg	05.15.2020 13:35	
m,p-Xylenes	<0.00399	0.200	0.212	106	0.189	95	70-135	11	35	mg/kg	05.15.2020 13:35	
o-Xylene	<0.00200	0.0998	0.107	107	0.0962	97	71-133	11	35	mg/kg	05.15.2020 13:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		70-130	%	05.15.2020 13:35
4-Bromofluorobenzene	99		100		70-130	%	05.15.2020 13:35

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

Work Order No.:

12 Oct 1984

www.xenon.com

Page 1 of 3

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

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	Sample Comments		
						TPH (EPA)	BTEX (EPA)	Chloride (EPA)
FS01	S	05/13/20	1025	1.75'	1	X	X	X
FS02			1027			X	X	X
FS03			1029			X	X	X
FS04			1033			X	X	X
FS05			1035	1'		X	X	X
FS06			1115	1'		X	X	X
FS07			1118			X	X	X
FS08			1119			X	X	X
FS09			1122			X	X	X
FS10			1124			X	X	X
Composite								

8RCRA 13PPN

TCLP / SPLP

Signature of this document and relinquishment of sample constituting a release of liability

1631 / 245.1 / 7470 / 7471 : Hg

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
		5/14/20 16:08



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Work Order No: Cell 168e

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

www.xenco.com Page 2 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com mcafee@ltenv.com

Project Name:	Remuda North state 906H	Turn Around	☒
Project Number:	012920008	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

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

Temp Blank:	Yes	No	Wet Ice:	Yes	No
Received Intact:	Yes	No	Thermometer ID		
Cooler Custody Seal:	Yes	No	Correction Factor:		
Sample Custody Seals:	Yes	No	Total Containers:		

ANALYSIS REQUEST											Work Order Notes
Number of Containers											
TPH (EPA 8015)											TAT starts the day received by the lab, if received by 4:30pm
BTX (EPA 8021)											
Chloride (EPA 300.0)											Sample Comments
											Composite



Chain of Custody

Work Order No: 1111680

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 3 of 3

Project Manager:		Dan Moir	Bill to: (if different)	Kyle Littlell
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) 701-2610	Email:	dmoir@ltenv.com mmcalfee@ltenv.com

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

Project Name:		Remuda, North State 906H		Turn Around		ANALYSIS REQUEST		Work Order Notes
Project Number:		012920008		Routine ☒				
P.O. Number:				Rush:				
Sampler's Name:		Robert McAfee		Due Date:				
Temp Blank:		Yes No		Wet Ice: Yes No				
Temperature (°C):				Thermometer ID				
Received Intact:		Yes ☒ No						
Cooler Custody Seals:		Yes No N/A		Correction Factor:				
Sample Custody Seals:		Yes No N/A		Total Containers:				
Number of Containers								
(EPA 8015)								
(EPA 8021)								
de (EPA 300.0)								
TAT starts the day received by the lab, if received by 4:30pm								

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX	Chloride	Sample Comments
FS21	S	05/13/20	1148	1'	1	X	X	X	Composite

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 H 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 I I U 1631 / 245.1 / 1410 / 1411 : mg

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
		5/14/20 16:48			

Download Date: 05/14/18 10:48:18

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.14.2020 04.48.00 PM

Work Order #: 661686

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)?	3.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

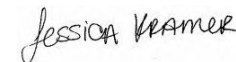
Checklist completed by:



Elizabeth McClellan

Date: 05.14.2020

Checklist reviewed by:



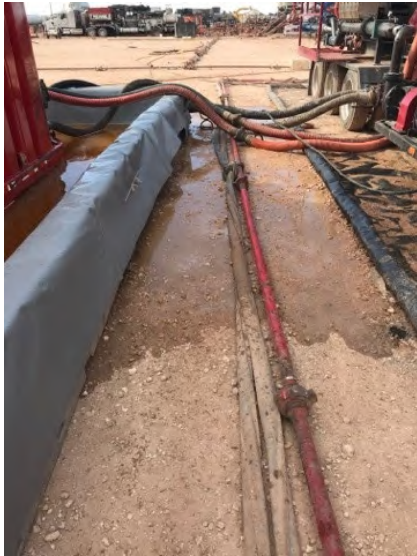
Jessica Kramer

Date: 05.15.2020

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of containment overflow onto pad.



Photograph 2: View of staining on pad facing south.



Photograph 3: View of excavation facing southeast.



Photograph 4: View of excavation facing northwest.

PHOTOGRAPHIC LOG



Photograph 5: View of completed backfill on pad.



Photograph 6: View of completed backfill on pad.