

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	NRM2011537308
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 32.27051 Longitude -103.93732  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Remuda 500 CTB	Site Type Central Tank Battery
Date Release Discovered 04/10/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
O	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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls) 0.12	Volume Recovered (bbls) 0
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

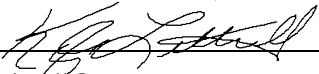
Cause of Release During normal operations, the VRT compressor went down sending condensate out of the flare creating a small fire on the ground just below the flare. Fire burned itself out and there was no standing fluid to recover. A third party contractor has been retained to complete remediation activities.

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume that results in a fire or is the result of a fire.
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 to Mike Bratcher; Rob Hamlet; Victoria Venegas; 'Griswold, Jim, EMNRD'; rmann@slo.state.nm.us on Friday, April 10, 2020 at 3:52 p.m.	

## Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> 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:  There were no fluids to be contained via the use of berms or dikes, absorbent pads, or other containment devices. There were no fluids released to be removed or managed.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature: 	Date: 4-23-20
email: Kyle_Littrell@xtoenergy.com	Telephone: 432-221-7331
<b><u>OCD Only</u></b>	
Received by: Ramona Marcus	Date: 4/24/2020

NRM2011537308

<b>Location:</b>	<b>Remuda 500 CTB</b>		
<b>Spill Date:</b>	<b>4/10/2020</b>		
<b>Area 1</b>			
Approximate Area =	2205.00	sq. ft.	
Average Saturation (or depth) of spill =	0.13	inches	
Average Porosity Factor =	0.03		
<b>VOLUME OF LEAK</b>			
Condensate	0.12	bbls	
<b>TOTAL VOLUME OF LEAK</b>			
Total Condensate	0.12	bbls	
<b>TOTAL VOLUME RECOVERED</b>			
Total Condensate	0.00	bbls	

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<50' (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
Signature:  Date: 06/29/20  
email: Kyle\_Littrell@xtoenergy.com Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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## Closure

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

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

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

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

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 06/29/20

email: Kyle\_Littrell@xtoenergy.com

Telephone: \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_



LT Environmental, Inc.

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

June 29, 2020

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

**RE: Closure Request  
Remuda 500 CTB  
Incident Number NRM2011537308  
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Remuda 500 CTB (Central Tank Battery; Site) in Unit O, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess the presence or absence of impacts to soil following a condensate release at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2011537308.

## RELEASE BACKGROUND

On April 10, 2020, the VRT compressor went down, sending condensate out of the flare. Approximately 0.12 barrels (bbls) of condensate were released and resulted in a small fire on the ground directly beneath the flare. The fire consumed the released condensate and burned itself out. There were no standing fluids to recover. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on April 10, 2020. A Release Notification and Corrective Action Form C-141 (Form C-141) was submitted to the NMOCD on April 23, 2020 and was assigned Incident Number NRM2011537308.

## SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be approximately 50 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321717103561001, located approximately 1.15 miles north of the Site. The groundwater well has a reported depth to groundwater of 50 feet bgs and the total depth of the well is unknown. New



Mexico Office of the State Engineer (NMOSE) well C-04326, located 1.6 miles northwest of the Site, was most recently measured in May 2019 and has a reported depth to water of 54 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash, located approximately 45 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

### **CLOSURE CRITERIA**

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

### **SITE ASSESSMENT AND DELINEATION ACTIVITIES**

On May 13, 2020, LTE personnel inspected the Site to evaluate the release extent based on information provided in the Form C-141 and visual observations. Indications of the release and fire were observed directly beneath the flare stack; the stained area measured approximately 45 square feet. The release extent was mapped utilizing a handheld Global Positioning System (GPS) and is depicted on Figure 2. LTE personnel collected one preliminary soil sample (SS01) within the release extent from a depth of 0.5 feet bgs. Photographic documentation was conducted at the Site and a photographic log is included in Attachment 1.

On May 27, 2020, LTE personnel returned to the Site to oversee additional soil assessment activities. One borehole (BH01) was advanced using a stainless-steel hand auger, to a depth of 2 feet bgs within the release extent. Borehole BH01 was advanced at the location of preliminary soil sample SS01. Soil from the borehole was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the borehole were logged on a lithologic/soil sampling log, which is included in Attachment 2. The borehole and soil sample locations are presented on Figure 2.



Bratcher, M.  
Page 3

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 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

### ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil sample SS01 collected at 0.5 feet bgs and in delineation soil sample BH01 collected at 2 feet bgs. The laboratory analytical results are summarized in Table 1 and the laboratory analytical reports are provided in Attachment 3.

### CLOSURE REQUEST

Preliminary soil sample SS01 and delineation soil sample BH01 were collected from within the release extent from depths ranging from 0.5 feet to 2 feet bgs to assess for the presence or absence of soil impacts as a result of the April 10, 2020 condensate release and fire at the Site. Laboratory analytical results for the soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, field screening of the soil samples indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and petroleum hydrocarbon odors were not identified within the release extent.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified, and no soil excavation was warranted. XTO requests NFA for this release event and respectfully requests closure of Incident Number NRM2011537308.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Elizabeth Naka'.

Elizabeth Naka  
Staff Environmental Scientist

A handwritten signature in black ink that reads 'Ashley L. Ager'.

Ashley L. Ager, P.G.  
Senior Geologist



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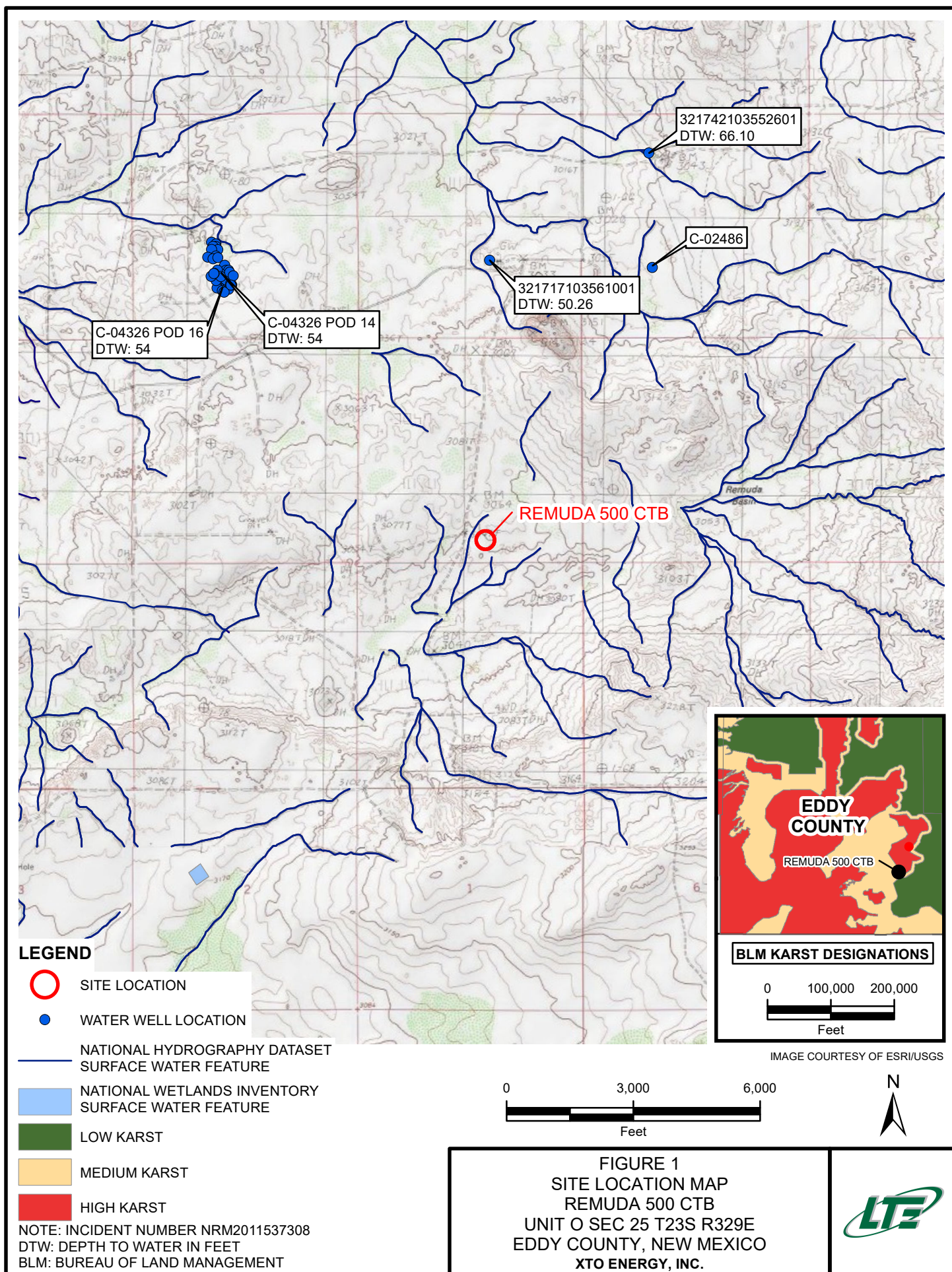
cc: Kyle Littrell, XTO  
United States Bureau of Land Management – New Mexico  
Robert Hamlet, NMOCD  
Victoria Venegas, NMOCD

Attachments:

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

FIGURES





SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)  
 SAMPLE DATE  
 NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)  
 B = 10 mg/kg  
 BTEX = 50 mg/kg  
 TPH = 100 mg/kg  
 Cl = 600 mg/kg  
 ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)  
 <: INDICATES RESULT IS LESS THAN THE  
 LABORATORY REPORTING LIMIT

SS01@0.5'	BH01@2'
05/13/2020	05/27/2020
B: <0.00202	B: <0.00200
BTEX: <0.00202	BTEX: <0.00200
TPH: <50.0	TPH: <50.0
Cl: 73.8	Cl: 131

**LEGEND**

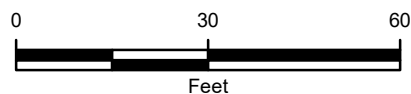
RELEASE LOCATION

SOIL SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

B: BENZENE  
 BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE,  
 AND TOTAL XYLENES  
 TPH: TOTAL PETROLEUM HYDROCARBONS  
 Cl: CHLORIDE  
 NMAC: NEW MEXICO ADMINISTRATIVE CODE  
 NMOCD: NEW MEXICO OIL CONSERVATION DIVISION  
 NOTE: INCIDENT NUMBER NRM2011537308

IMAGE COURTESY OF ESRI



**FIGURE 2**  
**SOIL SAMPLE LOCATIONS**  
**REMUDA 500 CTB**  
**UNIT O SEC 25 T23S R329E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**



TABLES



**TABLE 1  
SOIL ANALYTICAL RESULTS**

**REMUDA 500 CTB  
INCIDENT NUMBER NRM2011537308  
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)
<b>NMOCD Table 1 Closure Criteria</b>			<b>10</b>	NE	NE	NE	<b>50</b>	NE	NE	NE	NE	<b>100</b>	<b>600</b>
SS01	0.5	05/13/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	73.8
BH01	2	05/27/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	131

**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

&lt; - indicates result is below laboratory reporting limits

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



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of WSP

ATTACHMENT 1: PHOTOGRAPHIC LOG



## PHOTOGRAPHIC LOG



**Photograph 1:** East facing view of the release area.



**Photograph 2:** East facing view of the release area.

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLING LOG





ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS





# Certificate of Analysis Summary 661667

LT Environmental, Inc., Arvada, CO

Project Name: Remuda 500 CTB

Project Id: 012920064

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.14.2020 15:26

Report Date: 05.18.2020 13:46

Project Manager: Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b> 661667-001 <b>Field Id:</b> SS01 <b>Depth:</b> 0.5- ft <b>Matrix:</b> SOIL <b>Sampled:</b> 05.13.2020 15:20					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> 05.14.2020 16:00 <b>Analyzed:</b> 05.14.2020 23:33 <b>Units/RL:</b> mg/kg RL					
Benzene	<0.00202 0.00202					
Toluene	<0.00202 0.00202					
Ethylbenzene	<0.00202 0.00202					
m,p-Xylenes	<0.00403 0.00403					
o-Xylene	<0.00202 0.00202					
Total Xylenes	<0.00202 0.00202					
Total BTEX	<0.00202 0.00202					
<b>Chloride by EPA 300</b>	<b>Extracted:</b> 05.14.2020 17:43 <b>Analyzed:</b> 05.14.2020 21:17 <b>Units/RL:</b> mg/kg RL					
Chloride	73.8 9.96					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b> 05.14.2020 17:30 <b>Analyzed:</b> 05.15.2020 13:09 <b>Units/RL:</b> mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total GRO-DRO	<50.0 50.0					
Total TPH	<50.0 50.0					

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

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

Jessica Kramer  
Project Manager



# Analytical Report 661667

for

**LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda 500 CTB**

**012920064**

**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: TNI02385): 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): **661667**

**Remuda 500 CTB**

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) 661667. 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. 661667 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 661667

LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	05.13.2020 15:20	0.5 ft	661667-001



## CASE NARRATIVE

*Client Name: LT Environmental, Inc.*

*Project Name: Remuda 500 CTB*

Project ID: 012920064  
Work Order Number(s): 661667

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 661667

## LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id: **SS01** Matrix: Soil Date Received: 05.14.2020 15:26  
 Lab Sample Id: 661667-001 Date Collected: 05.13.2020 15:20 Sample Depth: 0.5 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 05.14.2020 17:43 Basis: Wet Weight  
 Seq Number: 3126031

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	73.8	9.96	mg/kg	05.14.2020 21:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 05.14.2020 17:30 Basis: Wet Weight  
 Seq Number: 3126199

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.15.2020 13:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.15.2020 13:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.15.2020 13:09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.15.2020 13:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.15.2020 13:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.15.2020 13:09	
o-Terphenyl	84-15-1	84	%	70-135	05.15.2020 13:09	



# Certificate of Analytical Results 661667

## LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id: **SS01**  
Lab Sample Id: 661667-001

Matrix: Soil  
Date Collected: 05.13.2020 15:20

Date Received: 05.14.2020 15:26  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126047

Prep Method: SW5035A

% Moisture:

Date Prep: 05.14.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.14.2020 23:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.14.2020 23:33	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	125	%	70-130	05.14.2020 23:33		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.14.2020 23:33		



## Flagging Criteria

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

\*\* 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 500 CTB

**Analytical Method: Chloride by EPA 300**

Seq Number: 3126031

MB Sample Id: 7703403-1-BLK

Matrix: Solid

LCS Sample Id: 7703403-1-BKS

Prep Method: E300P

Date Prep: 05.14.2020

LCSD Sample Id: 7703403-1-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	250	100	249	100	90-110	0	20	mg/kg	05.14.2020 19:43	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3126031

Parent Sample Id: 661663-001

Matrix: Soil

MS Sample Id: 661663-001 S

Prep Method: E300P

Date Prep: 05.14.2020

MSD Sample Id: 661663-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	200	372	94	403	110	90-110	8	20	mg/kg	05.14.2020 20:01	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3126031

Parent Sample Id: 661667-001

Matrix: Soil

MS Sample Id: 661667-001 S

Prep Method: E300P

Date Prep: 05.14.2020

MSD Sample Id: 661667-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	73.8	200	269	98	269	98	90-110	0	20	mg/kg	05.14.2020 21:23	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3126199

MB Sample Id: 7703409-1-BLK

Matrix: Solid

LCS Sample Id: 7703409-1-BKS

Prep Method: SW8015P

Date Prep: 05.14.2020

LCSD Sample Id: 7703409-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	933	93	70-135	14	35	mg/kg	05.15.2020 09:41	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1070	107	70-135	5	35	mg/kg	05.15.2020 09:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		135		122		70-135	%	05.15.2020 09:41
o-Terphenyl	111		117		122		70-135	%	05.15.2020 09:41

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3126199

Matrix: Solid

MB Sample Id: 7703409-1-BLK

Prep Method: SW8015P

Date Prep: 05.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.15.2020 09:20	

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 500 CTB

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3126199

Parent Sample Id: 661663-001

Matrix: Soil

MS Sample Id: 661663-001 S

Prep Method: SW8015P

Date Prep: 05.14.2020

MSD Sample Id: 661663-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1010	100	967	97	70-135	4	35	mg/kg	05.15.2020 10:44	
Diesel Range Organics (DRO)	<50.3	1010	1170	116	1150	116	70-135	2	35	mg/kg	05.15.2020 10:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		119		70-135	%	05.15.2020 10:44
o-Terphenyl	124		123		70-135	%	05.15.2020 10:44

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3126047

MB Sample Id: 7703381-1-BLK

Matrix: Solid

LCS Sample Id: 7703381-1-BKS

Prep Method: SW5035A

Date Prep: 05.14.2020

LCSD Sample Id: 7703381-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.101	101	70-130	6	35	mg/kg	05.14.2020 16:04	
Toluene	<0.00200	0.100	0.103	103	0.0974	97	70-130	6	35	mg/kg	05.14.2020 16:04	
Ethylbenzene	<0.00200	0.100	0.0974	97	0.0926	93	71-129	5	35	mg/kg	05.14.2020 16:04	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.192	96	70-135	5	35	mg/kg	05.14.2020 16:04	
o-Xylene	<0.00200	0.100	0.101	101	0.0971	97	71-133	4	35	mg/kg	05.14.2020 16:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		100		70-130	%	05.14.2020 16:04
4-Bromofluorobenzene	97		93		91		70-130	%	05.14.2020 16:04

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3126047

Parent Sample Id: 661635-001

Matrix: Soil

MS Sample Id: 661635-001 S

Prep Method: SW5035A

Date Prep: 05.14.2020

MSD Sample Id: 661635-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.107	108	0.0992	100	70-130	8	35	mg/kg	05.14.2020 16:45	
Toluene	0.00986	0.0992	0.106	97	0.0955	87	70-130	10	35	mg/kg	05.14.2020 16:45	
Ethylbenzene	0.0147	0.0992	0.0911	77	0.0894	75	71-129	2	35	mg/kg	05.14.2020 16:45	
m,p-Xylenes	0.0337	0.198	0.191	79	0.183	75	70-135	4	35	mg/kg	05.14.2020 16:45	
o-Xylene	0.0207	0.0992	0.0979	78	0.0939	74	71-133	4	35	mg/kg	05.14.2020 16:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	05.14.2020 16:45
4-Bromofluorobenzene	95		94		70-130	%	05.14.2020 16:45

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0500 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111  
Hobbs, NM (575-392-7550)

Work Order No: 001001

Page 1 of 1

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## Chain of Custody

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments	
<b>Program:</b> UST/ST <input type="checkbox"/> PRP <input type="checkbox"/> brownfields <input type="checkbox"/> RC <input type="checkbox"/> superfund <input type="checkbox"/> <b>State of Project:</b> Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

[illegible]

<b>SAMPLE RECEIPT</b>		Temp Blank:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Temperature (°C):	4.8	Thermometer ID			
Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	T-NA-007			
Cooler Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	Correction Factor:	-0.2		
Sample Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/> N/A	Total Containers:	1		

Number of Containers

(EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

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

[illegible]

Circle Method(s) and Metal(s) to be analyzed	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	SiO <sub>2</sub> Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
		16331 / 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 \$76.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			5/14/20 15:24	2		
3				4		
5				6		

Revised Date 05/14/18 Rev. 2018

**XENCO Laboratories****Prelogin/Nonconformance Report- Sample Log-In****Client:** LT Environmental, Inc.**Date/ Time Received:** 05.14.2020 03.26.00 PM**Work Order #:** 661667**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)?	4.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Sample received in bulk container.

**\* 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



# Certificate of Analysis Summary 662710

LT Environmental, Inc., Arvada, CO

Project Name: Remuda 500 CTB

Project Id: 012920064

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 05.27.2020 13:13

Report Date: 05.30.2020 23:46

Project Manager: Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	662710-001					
	<b>Field Id:</b>	BH01					
	<b>Depth:</b>	2- ft					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	05.27.2020 10:00					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	05.27.2020 17:32					
	<b>Analyzed:</b>	05.27.2020 21:25					
	<b>Units/RL:</b>	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00401 0.00401					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	05.27.2020 16:30					
	<b>Analyzed:</b>	05.27.2020 21:02					
	<b>Units/RL:</b>	mg/kg RL					
Chloride		131 10.0					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	05.27.2020 14:30					
	<b>Analyzed:</b>	05.27.2020 16:25					
	<b>Units/RL:</b>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0					
Diesel Range Organics (DRO)		<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0					
Total GRO-DRO		<50.0 50.0					
Total TPH		<50.0 50.0					

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

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

Jessica Kramer  
Project Manager



# Analytical Report 662710

for

**LT Environmental, Inc.**

**Project Manager: Dan Moir**

**Remuda 500 CTB**

**012920064**

**05.30.2020**

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 (20-035-0)

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: TNI02385): Texas (T104704534-20-6)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.30.2020

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **662710**

**Remuda 500 CTB**

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) 662710. 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. 662710 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

---

**Jessica Kramer**

Project Manager

*A Small Business and Minority Company*

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



## Sample Cross Reference 662710

LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	05.27.2020 10:00	2 ft	662710-001



## CASE NARRATIVE

*Client Name: LT Environmental, Inc.*

*Project Name: Remuda 500 CTB*

Project ID: 012920064  
Work Order Number(s): 662710

Report Date: 05.30.2020  
Date Received: 05.27.2020

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**Sample receipt non conformances and comments:**

None

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 662710

## LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id: **BH01** Matrix: Soil Date Received: 05.27.2020 13:13  
 Lab Sample Id: 662710-001 Date Collected: 05.27.2020 10:00 Sample Depth: 2 ft  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB % Moisture:  
 Analyst: MAB Date Prep: 05.27.2020 16:30 Basis: Wet Weight  
 Seq Number: 3127161

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	131	10.0	mg/kg	05.27.2020 21:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: DTH % Moisture:  
 Analyst: DTH Date Prep: 05.27.2020 14:30 Basis: Wet Weight  
 Seq Number: 3127168

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.27.2020 16:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.27.2020 16:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.27.2020 16:25	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.27.2020 16:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.27.2020 16:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	05.27.2020 16:25	
o-Terphenyl	84-15-1	72	%	70-135	05.27.2020 16:25	



# Certificate of Analytical Results 662710

## LT Environmental, Inc., Arvada, CO

Remuda 500 CTB

Sample Id: **BH01**  
Lab Sample Id: 662710-001

Matrix: Soil  
Date Collected: 05.27.2020 10:00

Date Received: 05.27.2020 13:13  
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3127163

Prep Method: SW5035A

% Moisture:

Date Prep: 05.27.2020 17:32

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.27.2020 21:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.27.2020 21:25	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.27.2020 21:25		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.27.2020 21:25		



## 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 500 CTB

**Analytical Method: Chloride by EPA 300**

Seq Number: 3127161

MB Sample Id: 7704166-1-BLK

Matrix: Solid

LCS Sample Id: 7704166-1-BKS

Prep Method: E300P

Date Prep: 05.27.2020

LCSD Sample Id: 7704166-1-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	255	102	256	102	90-110	0	20	mg/kg	05.27.2020 18:35	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3127161

Parent Sample Id: 662594-010

Matrix: Soil

MS Sample Id: 662594-010 S

Prep Method: E300P

Date Prep: 05.27.2020

MSD Sample Id: 662594-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	168	101	264	95	264	95	90-110	0	20	mg/kg	05.27.2020 18:56	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3127161

Parent Sample Id: 662641-004

Matrix: Soil

MS Sample Id: 662641-004 S

Prep Method: E300P

Date Prep: 05.27.2020

MSD Sample Id: 662641-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3380	200	3570	95	3570	95	90-110	0	20	mg/kg	05.27.2020 20:41	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3127168

MB Sample Id: 7704221-1-BLK

Matrix: Solid

LCS Sample Id: 7704221-1-BKS

Prep Method: SW8015P

Date Prep: 05.27.2020

LCSD Sample Id: 7704221-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	1010	101	70-135	6	35	mg/kg	05.27.2020 13:00	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1040	104	70-135	5	35	mg/kg	05.27.2020 13:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		128		114		70-135	%	05.27.2020 13:00
o-Terphenyl	101		106		102		70-135	%	05.27.2020 13:00

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3127168

Matrix: Solid

MB Sample Id: 7704221-1-BLK

Prep Method: SW8015P

Date Prep: 05.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.27.2020 12:39	

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 500 CTB

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3127168

Parent Sample Id: 662641-002

Matrix: Soil

MS Sample Id: 662641-002 S

Prep Method: SW8015P

Date Prep: 05.27.2020

MSD Sample Id: 662641-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1240	124	1050	105	70-135	17	35	mg/kg	05.27.2020 14:01	
Diesel Range Organics (DRO)	<50.0	1000	1260	126	1060	106	70-135	17	35	mg/kg	05.27.2020 14:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		115		70-135	%	05.27.2020 14:01
o-Terphenyl	99		84		70-135	%	05.27.2020 14:01

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3127163

MB Sample Id: 7704174-1-BLK

Matrix: Solid

LCS Sample Id: 7704174-1-BKS

Prep Method: SW5035A

Date Prep: 05.27.2020

LCSD Sample Id: 7704174-1-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	0.104	104	70-130	5	35	mg/kg	05.27.2020 14:57	
Toluene	<0.00200	0.100	0.104	104	0.101	101	70-130	3	35	mg/kg	05.27.2020 14:57	
Ethylbenzene	<0.00200	0.100	0.0982	98	0.0952	95	71-129	3	35	mg/kg	05.27.2020 14:57	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.193	97	70-135	5	35	mg/kg	05.27.2020 14:57	
o-Xylene	<0.00200	0.100	0.101	101	0.0980	98	71-133	3	35	mg/kg	05.27.2020 14:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		107		108		70-130	%	05.27.2020 14:57
4-Bromofluorobenzene	96		89		91		70-130	%	05.27.2020 14:57

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3127163

Parent Sample Id: 662594-010

Matrix: Soil

MS Sample Id: 662594-010 S

Prep Method: SW5035A

Date Prep: 05.27.2020

MSD Sample Id: 662594-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.109	108	70-130	1	35	mg/kg	05.27.2020 15:38	
Toluene	<0.00200	0.100	0.105	105	0.103	102	70-130	2	35	mg/kg	05.27.2020 15:38	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.0945	94	71-129	4	35	mg/kg	05.27.2020 15:38	
m,p-Xylenes	<0.00401	0.200	0.202	101	0.194	97	70-135	4	35	mg/kg	05.27.2020 15:38	
o-Xylene	<0.00200	0.100	0.103	103	0.0986	98	71-133	4	35	mg/kg	05.27.2020 15:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		109		70-130	%	05.27.2020 15:38
4-Bromofluorobenzene	93		97		70-130	%	05.27.2020 15:38

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



## Chain of Custody

**Work Order No:**

10102710

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0330 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-1111  
Hobbs, NM (575-392-7550)

[www.xenco.com](http://www.xenco.com)

Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager: Dan Moir		Bill to: (if different)		Kyle Littrell
Company Name:		Company Name:		XTO Energy
Address:		Address:		3104 E Green Street
City, State ZIP:		City, State ZIP:		Carlsbad, NM 88220
Phone: 432.236.3849		Email: emoreno@ltenv.com		

Work Order Comments									
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project:									
Reporting Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> UST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/>									
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:									

Project Name:	Remuda 500 CTB	Turn Around	ANALYSIS REQUEST	Work Order Notes																																						
Project Number:	012920064	Routine <input checked="" type="checkbox"/>																																								
P.O. Number:		Rush:																																								
Sampler's Name:	Ezequiel Moreno	Due Date:																																								
<table border="1"> <thead> <tr> <th colspan="2">SAMPLE RECEIPT</th> <th>Temp Blank:</th> <th>Yes</th> <th>No</th> <th>Well Ice:</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Temperature (°C):</td> <td>3.2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Received Intact:</td> <td>Yes</td> <td>No</td> <td></td> <td></td> <td>Thermometer ID</td> <td>TNM007</td> <td></td> </tr> <tr> <td>Cooler Custody Seals:</td> <td>Yes</td> <td>No</td> <td>N/A</td> <td></td> <td>Correction Factor:</td> <td>-0.2</td> <td></td> </tr> <tr> <td>Sample Custody Seals:</td> <td>Yes</td> <td>No</td> <td>N/A</td> <td></td> <td>Total Containers:</td> <td>1</td> <td></td> </tr> </tbody> </table>					SAMPLE RECEIPT		Temp Blank:	Yes	No	Well Ice:	Yes	No	Temperature (°C):	3.2							Received Intact:	Yes	No			Thermometer ID	TNM007		Cooler Custody Seals:	Yes	No	N/A		Correction Factor:	-0.2		Sample Custody Seals:	Yes	No	N/A		Total Containers:
SAMPLE RECEIPT		Temp Blank:	Yes	No	Well Ice:	Yes	No																																			
Temperature (°C):	3.2																																									
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Cooler Custody Seals:	Yes	No	N/A		Correction Factor:	-0.2																																				
Sample Custody Seals:	Yes	No	N/A		Total Containers:	1																																				
Number of Containers																																										
PA 8015)																																										
EPA 0=8021)																																										
e (EPA 300.0)																																										
TAT starts the day received by the lab, if received by 4:30pm																																										



[illegible]

**Total 200.7 / 6010      200.8 / 6020:**  
Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo  
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

2 Na Sr Ti Sn U V Zn  
1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document certifies that the relinquishment of samples constitutes a valid purchase order from client company to Xenoco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco 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 Xenoco. A minimum charge of \$76.00 will be applied to each project, and a charge of \$6 for each sample submitted to Xenoco, but not analyzed. Those terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		5/27/20 13:13	2		
3			4		
5			6		

APPENDIX 1: REFERENCED WELL RECORDS



# USGS 321717103561001 23S.29E.24.41321

## Available data for this site

### Well Site

#### DESCRIPTION:

Latitude 32°17'17", Longitude 103°56'10" NAD27

Eddy County, New Mexico , Hydrologic Unit 13060011

Well depth: not determined.

Land surface altitude: 3,034 feet above NAVD88.

Well completed in "Rustler Formation" (312RSLR) local aquifer

#### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1983-02-02	2003-01-29	4
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

#### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data  
Inquiries](#)

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