



LT Environmental, Inc.

3300 North A Street, Building 1, Unit 103  
Midland, Texas 79705  
432.704.5178

July 11, 2019

Mr. Bradford Billings  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive, #3  
Santa Fe, New Mexico 87505**RE: Closure Request  
James Ranch Unit 65  
Remediation Permit Number 2RP-4893  
Eddy County, New Mexico**

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing excavation of impacted soil and confirmation soil sampling activities at the James Ranch Unit 65 (Site) in Unit B, Section 6, Township 23 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the excavation and soil sampling activities was to address impacts to soil following a release of crude oil and produced water from the wellhead at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this closure report and requesting no further action for this release event.

## RELEASE BACKGROUND

On July 20, 2018, the stuffing box packing on the wellhead failed and resulted in the release of 1 barrel (bbl) of crude oil and 7 bbls of produced water. The fluids were released onto the caliche well pad in the area surrounding the wellhead. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 0.5 bbls of crude oil and 5 bbls of produced water were recovered. The well was shut in, the stuffing box was repaired, and the well was returned to production. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on August 2, 2018, and was assigned Remediation Permit (RP) Number 2RP-4893 (Attachment 1).

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the NMOCD effective November 13, 2018. The purpose of the Compliance Agreement is to ensure that reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning remediation of the release began before prior to August 14, 2018, the effective date of 19.15.29 NMAC, however remediation was ongoing.



Billings, B.  
Page 2

## SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well is United States Geological Survey (USGS) well 321946103492001, located approximately 3,835 feet southwest of the Site, with a depth to groundwater of 145 feet bgs and a total depth of 180 feet bgs. Ground surface elevation at the water well location is 3,299 feet, which is 23 feet lower in elevation than the Site. The nearest continuously flowing water or significant watercourse to the Site is an intermittent drainage located approximately 6,184 feet south 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 located within a medium potential karst area.

## CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 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.

## DELINEATION SOIL SAMPLING AND EXCAVATION ACTIVITIES

On December 13, 2018, an LTE scientist was at the Site to assess the lateral and vertical extent of impacted soil in the release area. Potholes SS01 and SS02 were advanced in the release area via track hoe to a depth of 2 feet bgs. Two delineation soil samples were collected from each pothole from depths of 1 foot and 2 feet bgs. Soil was field screened in the potholes using a PID and Hach® chloride QuanTab® test strips. Photographic documentation was conducted during the site visit. Photographs are included in Attachment 2 and the delineation soil sample locations are depicted on Figure 2. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 3.

Based on soil staining observed at the surface, XTO proceeded with excavation of impacted soil. To direct excavation activities, LTE screened soil using a PID and Hach® chloride QuanTab® test strips. Impacted soil was excavated from the release area to a depth of 1.5 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet





Billings, B.  
Page 3

from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW04 were collected from the sidewalls of the excavation from depths of 0 to 1.5 feet bgs. Composite soil samples FS01 through FS05 were collected from the floor of the excavation from depths of 1.5 feet bgs. The excavation soil sample locations are depicted on Figure 3.

Field screening results for the excavation soil samples did not indicate elevated concentrations of volatile aromatic hydrocarbons or chloride. In addition, no staining or petroleum hydrocarbon odors were identified in the excavation soil samples.

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

The excavation measured approximately 1,000 square feet in area. The horizontal extent of the excavation is presented on Figure 3. A total of approximately 56 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the Lea Land landfill facility located in Hobbs, New Mexico.

## ANALYTICAL RESULTS

Laboratory analytical results indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria in delineation soil samples collected from potholes SS01 and SS02 at 1 foot and 2 feet bgs, excavation floor samples FS01 through FS05 collected at 1.5 feet bgs, and excavation sidewall samples SW01 through SW04 collected at 0 to 1.5 feet bgs. Laboratory analytical results are presented on Figure 2 and Figure 3, and summarized in Table 1. The complete laboratory analytical report is included as Attachment 4.

## CONCLUSIONS

Pothole delineation soil samples were collected in the release area from depths of 1 foot and 2 feet bgs to assess for the presence or absence of impacted soil as a result of the July 20, 2018, release. Based on soil staining, excavation of impacted soil was completed. Confirmation soil samples collected from the final excavation extent indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. No soil staining or petroleum hydrocarbon odors were identified in the excavation.





Billings, B.  
Page 4

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for release number 2RP-4893. Upon approval of this closure request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included as Attachment 1.

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, reading 'Carol Ann Whaley'.

Carol Ann Whaley  
Staff Geologist

A handwritten signature in black ink, reading 'Ashley L. Ager'.

Ashley L. Ager, P.G.  
Senior Geologist

cc: Kyle Littrell, XTO  
Jim Amos, U.S. Bureau of Land Management  
Mike Bratcher, NMOCD  
Robert Hamlet, NMOCD  
Victoria Venegas, NMOCD

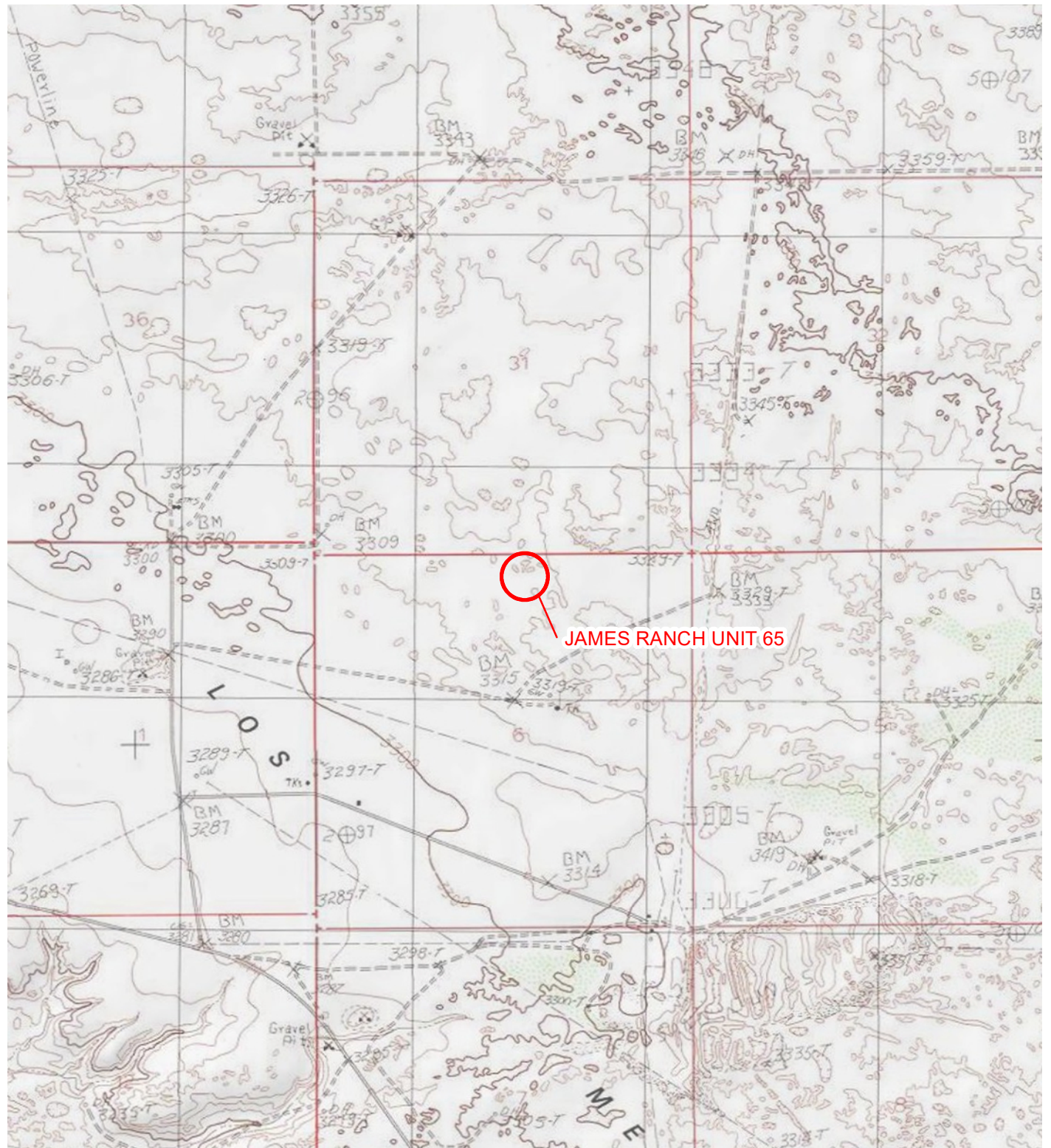
Attachments:

Figure 1 Site Location Map  
Figure 2 Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-4893)  
Attachment 2 Photographic Log  
Attachment 3 Lithologic / Soil Sample Logs  
Attachment 4 Laboratory Analytical Reports



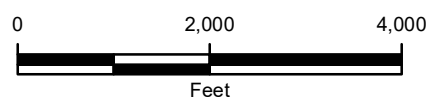
FIGURES



**LEGEND**

 SITE LOCATION

IMAGE COURTESY OF ESRI/USGS



NEW MEXICO

NOTE: REMEDIATION PERMIT  
NUMBER 2RP-4893

**FIGURE 1**  
**SITE LOCATION MAP**  
**JAMES RANCH UNIT 65**  
**LOT 2 SEC 6 T2S R31E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**



P:\XTO Energy\GIS\MXD\012919031\_JAMES RANCH UNIT 65\_4893\012919031\_FIG01\_SL\_2019\_4893.mxd

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

SS02@1'	SS02@2'
12/13/2018	12/13/2018
B: <0.00200	B: <0.00201
BTEX: <0.00200	BTEX: <0.00201
TPH: <14.9	TPH: <14.9
Cl: 12.0	Cl: 50.8

SS01@1'	SS01@2'
12/13/2018	12/13/2018
B: <0.00202	B: <0.00201
BTEX: <0.00202	BTEX: <0.00201
TPH: <15.0	TPH: <15.0
Cl: <5.00	Cl: 327

**LEGEND**

RELEASE LOCATION

DELINEATION SOIL SAMPLE IN COMPLIANCE  
WITH APPLICABLE STANDARDS

B: BENZENE

BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE,  
AND TOTAL XYLENES

TPH – TOTAL PETROLEUM HYDROCARBONS

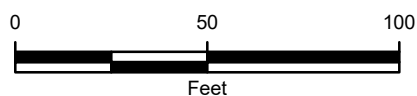
Cl - CHLORIDE

NMAC – NEW MEXICO ADMINISTRATIVE CODE

NMOCD – NEW MEXICO OIL CONSERVATION DIVISION

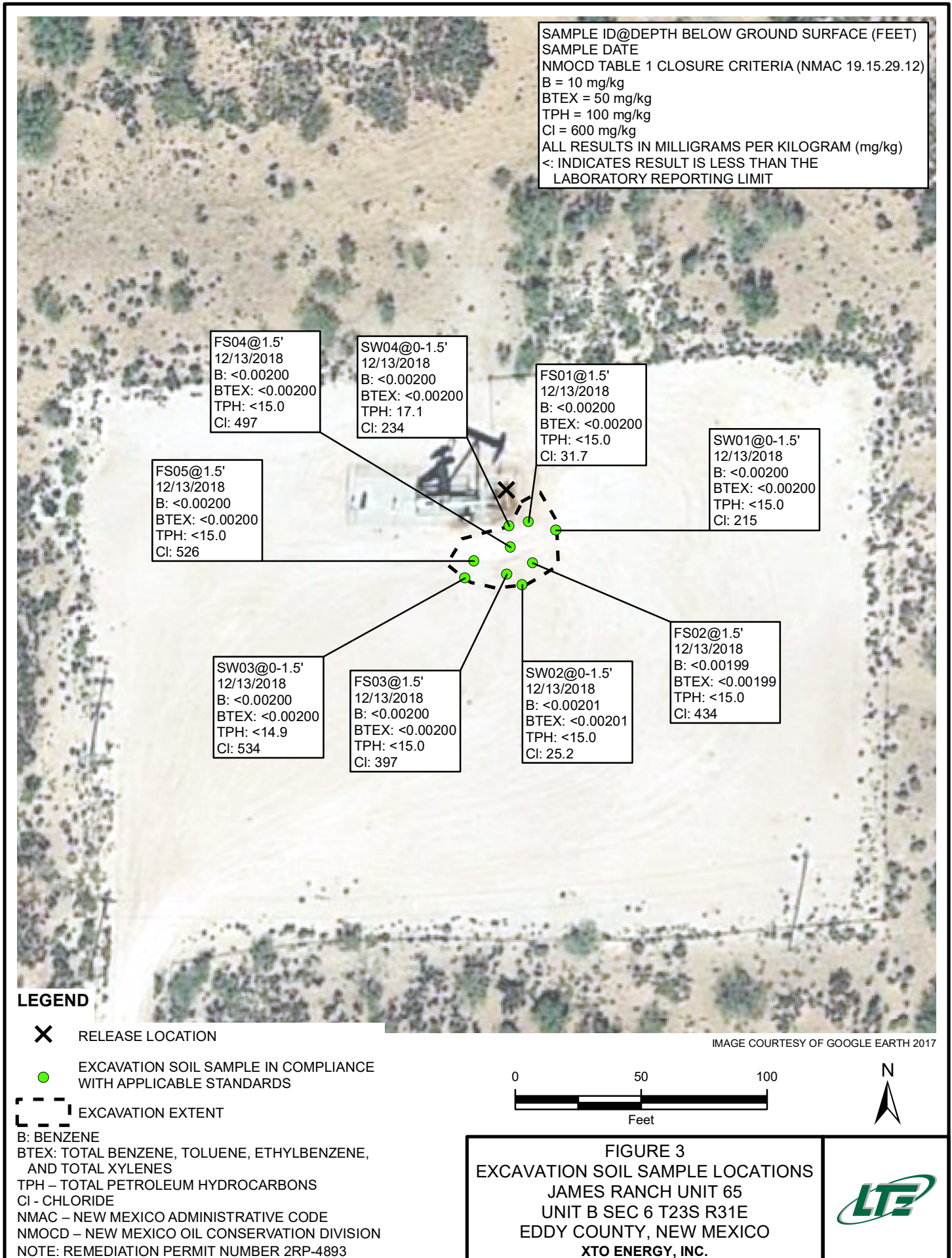
NOTE: REMEDIATION PERMIT NUMBER 2RP-4893

IMAGE COURTESY OF GOOGLE EARTH 2017



**FIGURE 2**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
 JAMES RANCH UNIT 65  
 UNIT B SEC 6 T23S R31E  
 EDDY COUNTY, NEW MEXICO  
 XTO ENERGY, INC.





TABLES



**TABLE 1  
SOIL ANALYTICAL RESULTS**

**JAMES RANCH UNIT 65  
REMEDIATION PERMIT NUMBER 2RP-4893  
EDDY COUNTY, NEW MEXICO  
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (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)
SS01	1	12/13/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS01	2	12/13/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	327
SS02	1	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	12.0
SS02	2	12/13/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	50.8
FS01	1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	31.7
FS02	1.5	12/13/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	434
FS03	1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	397
FS04	1.5	12/13/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	497
FS05	1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	526
SW01	0 - 1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	215
SW02	0 - 1.5	12/13/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	25.2
SW03	0 - 1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	534
SW04	0 - 1.5	12/13/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	17.1	<15.0	17.1	17.1	234
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600

**Notes:**

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

mg/kg - milligrams per kilogram

NE - not established

NMOCD - New Mexico Oil Conservation Division

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

TPH - total petroleum hydrocarbons

**Bold** - indicates result exceeds the applicable regulatory standard

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

NMAC - New Mexico Administrative Code

&lt; - indicates result is below laboratory reporting limits



ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-4893)



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

OCD Rec'd: 08/02/18

Form C-141  
Revised April 3, 2017

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

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

**NA81821836616**

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: XTO Energy   <b>BOPCO 200937</b>		Contact: Kyle Littrell	
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220		Telephone No: 432-221-7331	
Facility Name: James Ranch Unit 65		Facility Type: Exploration and Production	
Surface Owner: Federal		Mineral Owner: Federal	
		API No: 30-015-27995	

## LOCATION OF RELEASE

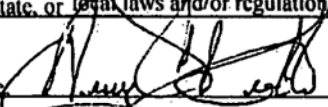

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	6	23S	31E	330	North	2310	East	Eddy

Latitude 32.339871 Longitude -103.815917 NAD83

## NATURE OF RELEASE

Type of Release Oil and produced water	Volume of Release 1bbl oil, 7bbl produced water	Volume Recovered 0.5bbl oil, 4.5bbl water
Source of Release Wellhead	Date and Hour of Occurrence 7/20/2018, AM	Date and Hour of Discovery 7/20/2018, 8:00 AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour: N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Release was due to stuffing box packing failure. Well was shut down, stuffing box was repaired, and well successfully restarted.		
Describe Area Affected and Cleanup Action Taken.* Fluid pooled around the wellhead, settling directly south of the pumping unit. All fluid was contained to caliche pad. Vacuum trucks were dispatched and recovered 5bbl of standing fluid. An environmental contractor has been retained to assist with remediation efforts.		

## OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: Maria Puell	
Printed Name: Amy Ruth	Approval Date: 08/03/2018	Expiration Date: N/A
Title: Environmental Coordinator	Conditions of Approval: See attached	
E-mail Address: Amy_Ruth@xtoenergy.com	Attached: 	
Date: 8/2/2018	Phone: 575-689-3380	

\* Attach Additional Sheets If Necessary

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	
District RP	2RP-4893
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 St, Carlsbad, NM 88220	

### Location of Release Source

Latitude 32.339871 \_\_\_\_\_ Longitude -103.815917 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit 65	Site Type Exploration and Production
Date Release Discovered 7/20/2018	API# (if applicable) 30-015-27995

Unit Letter	Section	Township	Range	County
B	6	23S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: BLM \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0.5
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 4.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<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

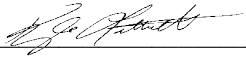
Release was due to stuffing box packing failure. Well was shut down, stuffing box was repaired, and well successfully restarted. Fluid pooled around the well head, settling directly south of the pumping unit. All fluid was contained to caliche pad. Vacuum trucks were dispatched and recovered 5 bbl of standing fluid.

Incident ID	
District RP	2RP-4893
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

## Initial Response

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

<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 checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" 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:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>7/11/2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	

Incident ID	
District RP	2RP-4893
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?	<u>&gt;100</u> (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 type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Yes <input 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

Page 4

Incident ID	
District RP	2RP-4893
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 SupervisorSignature:  Date: 7/11/2019email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331**OCD Only**

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

Incident ID	
District RP	2RP-4893
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: 7/11/2019

email: Kyle\_Littrell@xtoenergy.com Telephone: 432-221-7331

### OCD Only

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

Closure approval by the OCD does not relieve the responsible party 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: 2/24/2023


Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT 2: PHOTOGRAPHIC LOG






View facing west of the release area south of the wellhead.

Project: 012919031	XTO Energy, Inc. James Ranch Unit 65	 Advancing Opportunity
December 13, 2018	Photographic Log	





View facing northwest of the open excavation.

Project: 012919031	XTO Energy, Inc. James Ranch Unit 65	 Advancing Opportunity
December 13, 2018	Photographic Log	

ATTACHMENT 3: LITHOLOGIC SOIL SAMPLE LOGS



 <p><b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation</p>		Identifier: SS01	Date: 12/13/2018					
		Project Name: James Ranch Unit 65	RP Number: 2RP-4893					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: LL	Method: track hoe					
Lat/Long:		Field Screening: PID/HACH	Hole Diameter: Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	6.4	30.5	no	SS01	0			
					0.5			
					1	1'	SM	silty SAND, dry, dark brown, no odor
					1.5			
dry	9.4	0.0	no	SS01	2	2'	CH	CLAY, dry, brown-light brown, no odor
								Total Depth 2 feet bgs

 <p><b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation</p>		Identifier: SS02	Date: 12/13/2018					
		Project Name: James Ranch Unit 65	RP Number: 2RP-4893					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: LL	Method: track hoe					
Lat/Long:		Field Screening: PID/HACH	Hole Diameter: Total Depth: 2'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	0.3	0.0	no	SS02	0			
					0.5			
					1	1'	SM	silty SAND, dry, dark brown, no odor
					1.5			
dry	0.3	0.0	no	SS02	2	2'	CH	CLAY, dry, brown-light brown, no odor
								Total Depth 2 feet bgs

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



# Analytical Report 608834

for  
**LT Environmental, Inc.**

**Project Manager: Adrian Baker**

**JRU 65**

**2RP-4893**

**26-DEC-18**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)  
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)  
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)  
Xenco-Atlanta (LELAP Lab ID #04176)  
Xenco-Tampa: Florida (E87429)  
Xenco-Lakeland: Florida (E84098)



26-DEC-18

Project Manager: **Adrian Baker**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **608834**

**JRU 65**

Project Address: Delaware Basin

**Adrian Baker:**

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) 608834. 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. 608834 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 608834



LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	12-13-18 10:10	1 ft	608834-001
SS01	S	12-13-18 10:10	2 ft	608834-002
SS02	S	12-13-18 10:10	1 ft	608834-003
SS02	S	12-13-18 10:10	2 ft	608834-004
FS01	S	12-13-18 10:10	1.5 ft	608834-005
FS02	S	12-13-18 10:10	1.5 ft	608834-006
FS03	S	12-13-18 10:10	1.5 ft	608834-007
FS04	S	12-13-18 10:10	1.5 ft	608834-008
SW01	S	12-13-18 10:10	0 - 1.5 ft	608834-009
SW02	S	12-13-18 10:10	0 - 1.5 ft	608834-010
SW03	S	12-13-18 10:10	0 - 1.5 ft	608834-011
SW04	S	12-13-18 10:10	0 - 1.5 ft	608834-012
FS05	S	12-13-18 10:10	0 - 1.5 ft	608834-013



## CASE NARRATIVE

**Client Name: LT Environmental, Inc.**

**Project Name: JRU 65**

Project ID: 2RP-4893

Work Order Number(s): 608834

Report Date: 26-DEC-18

Date Received: 12/15/2018

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**Sample receipt non conformances and comments:**

None

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

None

**Analytical non conformances and comments:**

Batch: LBA-3073325 BTEX by EPA 8021B

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

Batch: LBA-3073331 BTEX by EPA 8021B

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

Batch: LBA-3073531 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 608834

LT Environmental, Inc., Arvada, CO

Project Name: JRU 65



**Project Id:** 2RP-4893  
**Contact:** Adrian Baker  
**Project Location:** Delaware Basin

**Date Received in Lab:** Sat Dec-15-18 09:30 am  
**Report Date:** 26-DEC-18  
**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	608834-001	608834-002	608834-003	608834-004	608834-005	608834-006
	<i>Field Id:</i>	SS01	SS01	SS02	SS02	FS01	FS02
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1.5- ft	1.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:30
	<i>Analyzed:</i>	Dec-19-18 08:07	Dec-19-18 08:26	Dec-19-18 09:59	Dec-19-18 10:18	Dec-19-18 10:37	Dec-19-18 10:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>	Dec-17-18 16:00	Dec-17-18 16:00	Dec-17-18 16:00	Dec-19-18 10:30	Dec-19-18 11:30	Dec-19-18 11:30
	<i>Analyzed:</i>	Dec-18-18 04:27	Dec-18-18 04:33	Dec-18-18 04:39	Dec-19-18 17:40	Dec-19-18 18:41	Dec-19-18 18:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<5.00 5.00	327 4.96	12.0 4.95	50.8 4.96	31.7 4.95	434 4.95
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00
	<i>Analyzed:</i>	Dec-22-18 23:59	Dec-23-18 01:03	Dec-23-18 01:24	Dec-23-18 01:45	Dec-23-18 02:06	Dec-23-18 02:27
	<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)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0

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

*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 608834

LT Environmental, Inc., Arvada, CO

Project Name: JRU 65



**Project Id:** 2RP-4893  
**Contact:** Adrian Baker  
**Project Location:** Delaware Basin

**Date Received in Lab:** Sat Dec-15-18 09:30 am  
**Report Date:** 26-DEC-18  
**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	608834-007	608834-008	608834-009	608834-010	608834-011	608834-012
	<i>Field Id:</i>	FS03	FS04	SW01	SW02	SW03	SW04
	<i>Depth:</i>	1.5- ft	1.5- ft	0-1.5 ft	0-1.5 ft	0-1.5 ft	0-1.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10	Dec-13-18 10:10
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:30	Dec-18-18 16:00	Dec-18-18 16:00	Dec-18-18 16:00
	<i>Analyzed:</i>	Dec-19-18 11:15	Dec-19-18 11:34	Dec-19-18 11:53	Dec-19-18 02:28	Dec-19-18 02:47	Dec-19-18 03:06
	<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	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00402 0.00402	<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
<b>Inorganic Anions by EPA 300</b>	<i>Extracted:</i>	Dec-19-18 11:30	Dec-19-18 11:30	Dec-19-18 11:30	Dec-19-18 11:30	Dec-19-18 11:30	Dec-19-18 11:30
	<i>Analyzed:</i>	Dec-19-18 18:53	Dec-19-18 18:59	Dec-19-18 19:23	Dec-19-18 18:22	Dec-19-18 19:29	Dec-19-18 19:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		397 5.00	497 5.00	215 5.00	25.2 4.96	534 4.95	234 5.00
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00	Dec-21-18 17:00
	<i>Analyzed:</i>	Dec-23-18 02:48	Dec-23-18 03:09	Dec-23-18 03:30	Dec-23-18 03:51	Dec-23-18 04:53	Dec-23-18 05:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	17.1 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	17.1 15.0

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.

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*Jessica Kramer*

Jessica Kramer  
Project Assistant



# Certificate of Analysis Summary 608834

LT Environmental, Inc., Arvada, CO

Project Name: JRU 65



**Project Id:** 2RP-4893  
**Contact:** Adrian Baker  
**Project Location:** Delaware Basin

**Date Received in Lab:** Sat Dec-15-18 09:30 am  
**Report Date:** 26-DEC-18  
**Project Manager:** Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	608834-013					
	<b>Field Id:</b>	FS05					
	<b>Depth:</b>	0-1.5 ft					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	Dec-13-18 10:10					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Dec-19-18 12:00					
	<b>Analyzed:</b>	Dec-19-18 16:08					
	<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		<0.00399 0.00399					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
<b>Inorganic Anions by EPA 300</b>	<b>Extracted:</b>	Dec-19-18 11:30					
	<b>Analyzed:</b>	Dec-19-18 19:41					
	<b>Units/RL:</b>	mg/kg RL					
Chloride		526 5.00					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Dec-21-18 17:00					
	<b>Analyzed:</b>	Dec-23-18 05:34					
	<b>Units/RL:</b>	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0					
Diesel Range Organics (DRO)		<15.0 15.0					
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0					
Total TPH		<15.0 15.0					

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

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

*Jessica Kramer*

Jessica Kramer  
Project Assistant



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS01**  
 Lab Sample Id: 608834-001

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.17.18 16.00

Basis: Wet Weight

Seq Number: 3073190

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	12.18.18 04.27	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.22.18 23.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.22.18 23.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.22.18 23.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.22.18 23.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.22.18 23.59	
o-Terphenyl	84-15-1	101	%	70-135	12.22.18 23.59	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS01**  
 Lab Sample Id: 608834-001

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.18 08.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.18 08.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.18 08.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.18 08.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.18 08.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.18 08.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.18 08.07	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>	
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 08.07		
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.18 08.07		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS01**  
 Lab Sample Id: 608834-002

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.17.18 16.00

Basis: Wet Weight

Seq Number: 3073190

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	327	4.96	mg/kg	12.18.18 04.33		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 01.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 01.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 01.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 01.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.23.18 01.03	
o-Terphenyl	84-15-1	97	%	70-135	12.23.18 01.03	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS01**  
Lab Sample Id: 608834-002

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.18 08.26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.18 08.26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.18 08.26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.18 08.26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.18 08.26	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.18 08.26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.18 08.26	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	94	%	70-130	12.19.18 08.26		
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 08.26		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS02**  
 Lab Sample Id: 608834-003

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.17.18 16.00

Basis: Wet Weight

Seq Number: 3073190

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	4.95	mg/kg	12.18.18 04.39		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.23.18 01.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.23.18 01.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.23.18 01.24	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.23.18 01.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.23.18 01.24	
o-Terphenyl	84-15-1	113	%	70-135	12.23.18 01.24	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS02**  
Lab Sample Id: 608834-003

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 09.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 09.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 09.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.18 09.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 09.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 09.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 09.59	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	85	%	70-130	12.19.18 09.59		
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.19.18 09.59		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS02**  
 Lab Sample Id: 608834-004

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.19.18 10.30

Basis: Wet Weight

Seq Number: 3073513

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.8	4.96	mg/kg	12.19.18 17.40		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.23.18 01.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.23.18 01.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.23.18 01.45	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.23.18 01.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.23.18 01.45	
o-Terphenyl	84-15-1	114	%	70-135	12.23.18 01.45	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SS02**  
 Lab Sample Id: 608834-004

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.18 10.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.18 10.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.18 10.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.18 10.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.18 10.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.18 10.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.18 10.18	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	91	%	70-130	12.19.18 10.18		
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 10.18		



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS01** Matrix: Soil Date Received: 12.15.18 09.30  
 Lab Sample Id: 608834-005 Date Collected: 12.13.18 10.10 Sample Depth: 1.5 ft  
 Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P  
 Tech: CHE % Moisture:  
 Analyst: CHE Date Prep: 12.19.18 11.30 Basis: Wet Weight  
 Seq Number: 3073515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	4.95	mg/kg	12.19.18 18.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P  
 Tech: ARM % Moisture:  
 Analyst: ARM Date Prep: 12.21.18 17.00 Basis: Wet Weight  
 Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 02.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 02.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 02.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.23.18 02.06	
o-Terphenyl	84-15-1	97	%	70-135	12.23.18 02.06	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS01**  
 Lab Sample Id: 608834-005

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 10.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 10.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 10.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.18 10.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 10.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 10.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 10.37	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	94	%	70-130	12.19.18 10.37		
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 10.37		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS02**  
 Lab Sample Id: 608834-006

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.19.18 11.30

Basis: Wet Weight

Seq Number: 3073515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	434	4.95	mg/kg	12.19.18 18.47		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 02.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 02.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 02.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 02.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.23.18 02.27	
o-Terphenyl	84-15-1	91	%	70-135	12.23.18 02.27	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS02**  
Lab Sample Id: 608834-006

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: SCM

Analyst: SCM

Seq Number: 3073331

Date Prep: 12.18.18 16.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.18 10.56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.18 10.56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.18 10.56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.18 10.56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.18 10.56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.18 10.56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.18 10.56	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>	
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 10.56		
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.19.18 10.56		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS03**  
 Lab Sample Id: 608834-007

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.19.18 11.30

Basis: Wet Weight

Seq Number: 3073515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	397	5.00	mg/kg	12.19.18 18.53		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 02.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 02.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 02.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 02.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.23.18 02.48	
o-Terphenyl	84-15-1	102	%	70-135	12.23.18 02.48	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS03**  
Lab Sample Id: 608834-007

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 11.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 11.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 11.15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.18 11.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 11.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 11.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 11.15	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>	
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.19.18 11.15		
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.19.18 11.15		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS04**  
 Lab Sample Id: 608834-008

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3073515

Date Prep: 12.19.18 11.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	497	5.00	mg/kg	12.19.18 18.59		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3073909

Date Prep: 12.21.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 03.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 03.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 03.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 03.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.23.18 03.09	
o-Terphenyl	84-15-1	93	%	70-135	12.23.18 03.09	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS04**  
Lab Sample Id: 608834-008

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: SCM

Analyst: SCM

Seq Number: 3073331

Date Prep: 12.18.18 16.30

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.18 11.34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.18 11.34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.18 11.34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.18 11.34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.18 11.34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.18 11.34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.18 11.34	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	95	%	70-130	12.19.18 11.34		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.19.18 11.34		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW01**  
 Lab Sample Id: 608834-009

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 0 - 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.19.18 11.30

Basis: Wet Weight

Seq Number: 3073515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	215	5.00	mg/kg	12.19.18 19.23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 03.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 03.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 03.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 03.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.23.18 03.30	
o-Terphenyl	84-15-1	97	%	70-135	12.23.18 03.30	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: SW01

Matrix: Soil

Date Received: 12.15.18 09.30

Lab Sample Id: 608834-009

Date Collected: 12.13.18 10.10

Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.30

Basis: Wet Weight

Seq Number: 3073331

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 11.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 11.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 11.53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.18 11.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 11.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 11.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 11.53	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	96	%	70-130	12.19.18 11.53		
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.19.18 11.53		



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW02**  
Lab Sample Id: 608834-010

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 0 - 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3073515

Date Prep: 12.19.18 11.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.2	4.96	mg/kg	12.19.18 18.22		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3073909

Date Prep: 12.21.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 03.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 03.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 03.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 03.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.23.18 03.51	
o-Terphenyl	84-15-1	116	%	70-135	12.23.18 03.51	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW02**  
Lab Sample Id: 608834-010

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: SCM

Analyst: SCM

Seq Number: 3073325

Date Prep: 12.18.18 16.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.18 02.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.18 02.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.18 02.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.18 02.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.18 02.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.18 02.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.18 02.28	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	94	%	70-130	12.19.18 02.28		
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.18 02.28		



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW03**  
Lab Sample Id: 608834-011

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 0 - 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3073515

Date Prep: 12.19.18 11.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	534	4.95	mg/kg	12.19.18 19.29		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3073909

Date Prep: 12.21.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.23.18 04.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.23.18 04.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.23.18 04.53	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.23.18 04.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.23.18 04.53	
o-Terphenyl	84-15-1	90	%	70-135	12.23.18 04.53	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW03**  
 Lab Sample Id: 608834-011

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.00

Basis: Wet Weight

Seq Number: 3073325

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 02.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 02.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 02.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.18 02.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 02.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 02.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 02.47	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	92	%	70-130	12.19.18 02.47		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.19.18 02.47		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW04**  
 Lab Sample Id: 608834-012

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 0 - 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3073515

Date Prep: 12.19.18 11.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	234	5.00	mg/kg	12.19.18 19.35		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3073909

Date Prep: 12.21.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 05.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	17.1	15.0	mg/kg	12.23.18 05.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 05.13	U	1
Total TPH	PHC635	17.1	15.0	mg/kg	12.23.18 05.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.23.18 05.13	
o-Terphenyl	84-15-1	101	%	70-135	12.23.18 05.13	



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **SW04**  
 Lab Sample Id: 608834-012

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.18.18 16.00

Basis: Wet Weight

Seq Number: 3073325

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 03.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 03.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 03.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.18 03.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 03.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 03.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 03.06	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>	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.19.18 03.06		
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.19.18 03.06		



## Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS05**  
 Lab Sample Id: 608834-013

Matrix: Soil  
 Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
 Sample Depth: 0 - 1.5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.19.18 11.30

Basis: Wet Weight

Seq Number: 3073515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	526	5.00	mg/kg	12.19.18 19.41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 12.21.18 17.00

Basis: Wet Weight

Seq Number: 3073909

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.23.18 05.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.23.18 05.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.23.18 05.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.23.18 05.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.23.18 05.34	
o-Terphenyl	84-15-1	91	%	70-135	12.23.18 05.34	



# Certificate of Analytical Results 608834



## LT Environmental, Inc., Arvada, CO

JRU 65

Sample Id: **FS05**  
Lab Sample Id: 608834-013

Matrix: Soil  
Date Collected: 12.13.18 10.10

Date Received: 12.15.18 09.30  
Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 12.19.18 12.00

Basis: Wet Weight

Seq Number: 3073531

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.18 16.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.18 16.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.18 16.08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.18 16.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.18 16.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.18 16.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.18 16.08	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	87	%	70-130	12.19.18 16.08		
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.19.18 16.08		



## 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.

JRU 65

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073190

Matrix: Solid

Prep Method: E300P

MB Sample Id: 7668220-1-BLK

LCS Sample Id: 7668220-1-BKS

Date Prep: 12.17.18

LCSD Sample Id: 7668220-1-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	274	110	274	110	90-110	0	20	mg/kg	12.18.18 01:30	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073513

Matrix: Solid

Prep Method: E300P

MB Sample Id: 7668353-1-BLK

LCS Sample Id: 7668353-1-BKS

Date Prep: 12.19.18

LCSD Sample Id: 7668353-1-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	265	106	257	103	90-110	3	20	mg/kg	12.19.18 14:16	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073515

Matrix: Solid

Prep Method: E300P

MB Sample Id: 7668394-1-BLK

LCS Sample Id: 7668394-1-BKS

Date Prep: 12.19.18

LCSD Sample Id: 7668394-1-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	256	102	260	104	90-110	2	20	mg/kg	12.19.18 18:10	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073190

Matrix: Soil

Prep Method: E300P

Parent Sample Id: 608832-003

MS Sample Id: 608832-003 S

Date Prep: 12.17.18

MSD Sample Id: 608832-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	53.1	250	289	94	291	95	90-110	1	20	mg/kg	12.18.18 03:20	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073190

Matrix: Soil

Prep Method: E300P

Parent Sample Id: 608888-004

MS Sample Id: 608888-004 S

Date Prep: 12.17.18

MSD Sample Id: 608888-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	248	100	254	102	90-110	2	20	mg/kg	12.18.18 01:48	

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

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

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

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



## LT Environmental, Inc.

JRU 65

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073513

Parent Sample Id: 609017-006

Matrix: Soil

MS Sample Id: 609017-006 S

Prep Method: E300P

Date Prep: 12.19.18

MSD Sample Id: 609017-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.8	250	269	103	274	105	90-110	2	20	mg/kg	12.19.18 14:35	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073513

Parent Sample Id: 609018-006

Matrix: Soil

MS Sample Id: 609018-006 S

Prep Method: E300P

Date Prep: 12.19.18

MSD Sample Id: 609018-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	263	105	256	102	90-110	3	20	mg/kg	12.19.18 16:06	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073515

Parent Sample Id: 608834-010

Matrix: Soil

MS Sample Id: 608834-010 S

Prep Method: E300P

Date Prep: 12.19.18

MSD Sample Id: 608834-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	25.2	248	276	101	281	103	90-110	2	20	mg/kg	12.19.18 18:28	

## Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3073515

Parent Sample Id: 608839-012

Matrix: Soil

MS Sample Id: 608839-012 S

Prep Method: E300P

Date Prep: 12.19.18

MSD Sample Id: 608839-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	268	250	525	103	524	102	90-110	0	20	mg/kg	12.19.18 20:00	

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3073909

MB Sample Id: 7668684-1-BLK

Matrix: Solid

LCS Sample Id: 7668684-1-BKS

Prep Method: TX1005P

Date Prep: 12.21.18

LCSD Sample Id: 7668684-1-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)	<8.00	1000	932	93	970	97	70-135	4	20	mg/kg	12.22.18 23:16	
Diesel Range Organics (DRO)	<8.13	1000	926	93	972	97	70-135	5	20	mg/kg	12.22.18 23:16	

## Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		118		122		70-135	%	12.22.18 23:16
o-Terphenyl	105		105		111		70-135	%	12.22.18 23:16

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.

JRU 65

## Analytical Method: TPH by SW8015 Mod

Seq Number: 3073909

Parent Sample Id: 608834-001

Matrix: Soil

MS Sample Id: 608834-001 S

Prep Method: TX1005P

Date Prep: 12.21.18

MSD Sample Id: 608834-001 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)	<7.98	997	952	95	932	93	70-135	2	20	mg/kg	12.23.18 09:39	
Diesel Range Organics (DRO)	<8.10	997	935	94	925	93	70-135	1	20	mg/kg	12.23.18 09:39	

## Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		113		70-135	%	12.23.18 09:39
o-Terphenyl	100		98		70-135	%	12.23.18 09:39

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3073325

MB Sample Id: 7668314-1-BLK

Matrix: Solid

LCS Sample Id: 7668314-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.18

LCSD Sample Id: 7668314-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.104	104	0.0983	98	70-130	6	35	mg/kg	12.18.18 18:17	
Toluene	<0.000457	0.100	0.0939	94	0.0896	90	70-130	5	35	mg/kg	12.18.18 18:17	
Ethylbenzene	<0.000566	0.100	0.102	102	0.0979	98	70-130	4	35	mg/kg	12.18.18 18:17	
m,p-Xylenes	<0.00102	0.200	0.186	93	0.178	89	70-130	4	35	mg/kg	12.18.18 18:17	
o-Xylene	<0.000345	0.100	0.0905	91	0.0865	87	70-130	5	35	mg/kg	12.18.18 18:17	

## Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		104		70-130	%	12.18.18 18:17
4-Bromofluorobenzene	82		88		88		70-130	%	12.18.18 18:17

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3073331

MB Sample Id: 7668320-1-BLK

Matrix: Solid

LCS Sample Id: 7668320-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.18

LCSD Sample Id: 7668320-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0887	89	0.0848	85	70-130	4	35	mg/kg	12.19.18 04:02	
Toluene	<0.000455	0.0998	0.0839	84	0.0803	80	70-130	4	35	mg/kg	12.19.18 04:02	
Ethylbenzene	<0.000564	0.0998	0.0897	90	0.0857	86	70-130	5	35	mg/kg	12.19.18 04:02	
m,p-Xylenes	<0.00101	0.200	0.162	81	0.155	78	70-130	4	35	mg/kg	12.19.18 04:02	
o-Xylene	<0.00200	0.0998	0.0811	81	0.0775	78	70-130	5	35	mg/kg	12.19.18 04:02	

## Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		101		101		70-130	%	12.19.18 04:02
4-Bromofluorobenzene	81		86		86		70-130	%	12.19.18 04:02

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.

JRU 65

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3073531

MB Sample Id: 7668412-1-BLK

Matrix: Solid

LCS Sample Id: 7668412-1-BKS

Prep Method: SW5030B

Date Prep: 12.19.18

LCSD Sample Id: 7668412-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0912	92	0.0956	96	70-130	5	35	mg/kg	12.19.18 14:16	
Toluene	<0.000454	0.0996	0.0867	87	0.0902	90	70-130	4	35	mg/kg	12.19.18 14:16	
Ethylbenzene	<0.000563	0.0996	0.0927	93	0.0966	97	70-130	4	35	mg/kg	12.19.18 14:16	
m,p-Xylenes	<0.00101	0.199	0.169	85	0.175	88	70-130	3	35	mg/kg	12.19.18 14:16	
o-Xylene	<0.000343	0.0996	0.0816	82	0.0854	85	70-130	5	35	mg/kg	12.19.18 14:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		102		70-130	%	12.19.18 14:16
4-Bromofluorobenzene	76		84		86		70-130	%	12.19.18 14:16

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3073325

Parent Sample Id: 608779-001

Matrix: Soil

MS Sample Id: 608779-001 S

Prep Method: SW5030B

Date Prep: 12.18.18

MSD Sample Id: 608779-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.0904	90	0.0798	80	70-130	12	35	mg/kg	12.18.18 18:55	
Toluene	<0.000459	0.101	0.0781	77	0.0668	67	70-130	16	35	mg/kg	12.18.18 18:55	X
Ethylbenzene	<0.000569	0.101	0.0816	81	0.0672	67	70-130	19	35	mg/kg	12.18.18 18:55	X
m,p-Xylenes	<0.00102	0.202	0.150	74	0.125	63	70-130	18	35	mg/kg	12.18.18 18:55	X
o-Xylene	<0.000347	0.101	0.0748	74	0.0637	64	70-130	16	35	mg/kg	12.18.18 18:55	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		70-130	%	12.18.18 18:55
4-Bromofluorobenzene	89		89		70-130	%	12.18.18 18:55

## Analytical Method: BTEX by EPA 8021B

Seq Number: 3073331

Parent Sample Id: 608832-003

Matrix: Soil

MS Sample Id: 608832-003 S

Prep Method: SW5030B

Date Prep: 12.18.18

MSD Sample Id: 608832-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0523	52	0.0615	61	70-130	16	35	mg/kg	12.19.18 04:40	X
Toluene	<0.000456	0.100	0.0541	54	0.0634	63	70-130	16	35	mg/kg	12.19.18 04:40	X
Ethylbenzene	<0.000565	0.100	0.0620	62	0.0708	70	70-130	13	35	mg/kg	12.19.18 04:40	X
m,p-Xylenes	<0.00101	0.200	0.123	62	0.137	68	70-130	11	35	mg/kg	12.19.18 04:40	X
o-Xylene	<0.000344	0.100	0.0626	63	0.0700	69	70-130	11	35	mg/kg	12.19.18 04:40	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	12.19.18 04:40
4-Bromofluorobenzene	85		87		70-130	%	12.19.18 04:40

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

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

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

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



## LT Environmental, Inc.

JRU 65

Analytical Method: BTEX by EPA 8021B

Seq Number: 3073531

Parent Sample Id: 609022-001

Matrix: Soil

MS Sample Id: 609022-001 S

Prep Method: SW5030B

Date Prep: 12.19.18

MSD Sample Id: 609022-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0624	63	0.0734	73	70-130	16	35	mg/kg	12.19.18 14:54	X
Toluene	<0.000455	0.0998	0.0518	52	0.0600	59	70-130	15	35	mg/kg	12.19.18 14:54	X
Ethylbenzene	<0.000564	0.0998	0.0456	46	0.0527	52	70-130	14	35	mg/kg	12.19.18 14:54	X
m,p-Xylenes	<0.00101	0.200	0.0809	40	0.0926	46	70-130	13	35	mg/kg	12.19.18 14:54	X
o-Xylene	<0.000344	0.0998	0.0407	41	0.0466	46	70-130	14	35	mg/kg	12.19.18 14:54	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	12.19.18 14:54
4-Bromofluorobenzene	91		91		70-130	%	12.19.18 14:54

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:

608834

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) 794-1236

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

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Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Little
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:	432.704.5178	Email:	abaker@ltenv.com, klittle@ltenv.com

Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Rowfields <input type="checkbox"/> C <input type="checkbox"/> Inertund <input type="checkbox"/> State of Project:	
Reporting Level II <input type="checkbox"/>	Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Project Name:	JRU 65	Turn Around	<input checked="" type="checkbox"/>	ANALYSIS REQUEST																Work Order Notes				
Project Number:	279-4893	Routine	<input checked="" type="checkbox"/>																					
P.O. Number:		Rush:	<input type="checkbox"/>																					
Sampler's Name:	Lynda Lemback	Due Date:	12/21																					
<b>SAMPLE RECEIPT</b>				Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
Temperature (°C):	39.3.7	Thermometer ID																						
Received intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:		P8																				
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Total Containers:		~0.1																				
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A																							
<b>Sample Identification</b>				Matrix	Date Sampled	Time Sampled	Depth	Number of Containers																Sample Comments
								TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)														
SS01				S	12/18/18	10:10	1'	1	X	X	X													
SS01				S		10:15	2'	1	X	X	X													
SS02				S		11:20	1'	1	X	X	X													
SS02				S		11:30	2'	1	X	X	X													
SS01				S		13:00	1.5'	1	X	X	X													
SS02				S		13:10	1.5'	1	X	X	X													
FS03				S		13:15	1.5'	1	X	X	X													
FS04				S		13:30	1.5'	1	X	X	X													
SV01				S		14:00	0-1.5'	1	X	X	X													
SV02				S		14:10	0-1.5'	1	X	X	X													

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

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<i>[Signature]</i>	<i>[Signature]</i>	18:00 12/17/2018	<i>[Signature]</i>	<i>[Signature]</i>	12/14 14:00

Revised Date 05/14/18 Rev. 2018.1



## Chain of Custody

Work Order No:

608834

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

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Page 2 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Little
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:	432.704.5178	Email:	skubek@lthea.com, llaanbade@xenco.com

Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> rowfields	<input type="checkbox"/> C	<input type="checkbox"/> pfund
State of Project:				
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> BT/UST	<input type="checkbox"/> RP	<input type="checkbox"/> Level IV
Deliverables: EDD	<input type="checkbox"/> ADAPT	<input type="checkbox"/> Other:		

Project Name:	JRU 65	Turn Around		ANALYSIS REQUEST	Work Order Notes																																										
Project Number:	22P-4893	Route:	<input checked="" type="checkbox"/>																																												
P.O. Number:		Rush:																																													
Sampler's Name:	Lynda Lumbard	Due Date:	12/21																																												
<table border="1"> <tr> <th colspan="4">SAMPLE RECEIPT</th> <th colspan="3">Number of Containers</th> </tr> <tr> <td>Temp Blank:</td> <td>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>Wet Ice:</td> <td>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>TPH (EPA 8015)</td> <td></td> <td></td> </tr> <tr> <td>Temperature (°C):</td> <td>3.8/3.7</td> <td>Thermometer ID:</td> <td>18</td> <td>BTEX (EPA 8021)</td> <td></td> <td></td> </tr> <tr> <td>Received Intact:</td> <td>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>Correction Factor:</td> <td>-0.1</td> <td>Chloride (EPA 300.0)</td> <td></td> <td></td> </tr> <tr> <td>Cooler Custody Seals:</td> <td>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td>Total Containers:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sample Custody Seals:</td> <td>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						SAMPLE RECEIPT				Number of Containers			Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	TPH (EPA 8015)			Temperature (°C):	3.8/3.7	Thermometer ID:	18	BTEX (EPA 8021)			Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.1	Chloride (EPA 300.0)			Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:					Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
SAMPLE RECEIPT				Number of Containers																																											
Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	TPH (EPA 8015)																																											
Temperature (°C):	3.8/3.7	Thermometer ID:	18	BTEX (EPA 8021)																																											
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	-0.1	Chloride (EPA 300.0)																																											
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:																																													
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																														
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	TAT starts the day received by the lab, if received by 4:30pm																																										
SW03	S	12/13/12	14:40	0-1.5'																																											
SW04	S	12/13/12	14:50	0-1.5'																																											
FG05	S	1	1420	0-1.5'																																											
[REDACTED]																																															

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

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
 TCLP / SPL P 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[Signature]	[Signature]	12/13/12 18:00	[Signature]	[Signature]	12/14/12 14:00
		12/13/12 930			

ORIGIN ID: CAA0 (575) 887-6245 XENCO SATURDAY PAC N MAIL 910 W PIERCE ST CARLSBAD, NM 88220 UNITED STATES US		SHIP DATE: 14DEC18 ACTWTG: 35.00 LB CAD: 101813706IN/NET4040 DIMS: 19x13x16 IN BILL RECIPIENT	
TO HOLD FOR XENCO FEDEX OFFICE PRINT & SHIP CENTER FEDEX OFFICE PRINT & SHIP CENTER 200 W INTERSTATE 20 MIDLAND TX 79701 (806) 874-0639 REF: XENCO INV: DEPT:			
 			
TRK# 7739 8211 8173 0201		SATURDAY HOLD PRIORITY OVERNIGHT HLD MAFKI TX-US LBB	
			

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Client: LT Environmental, Inc.

Date/ Time Received: 12/15/2018 09:30:00 AM

Work Order #: 608834

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	3.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 12/17/2018

Checklist reviewed by:

Jessica Kramer

Date: 12/18/2018

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 190375

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 190375
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	2/24/2023