LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

February 11, 2019

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

RE: Closure Request
JRU 55 Battery
Remediation Permit Number 2RP-3863
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing the excavation of impacted soil and confirmation soil sampling activities at the JRU 55 Battery (Site) in Unit F, Section 17, Township 23 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil after a failed gasket caused a release around the processing equipment on the southern end of the well pad.

On August 26, 2016, a gasket in the upper portion of a 3-phase vessel failed and was discovered to be leaking, causing a release of approximately 43 barrels (bbls) of crude oil. Approximately 6,700 square feet of the caliche well pad was affected by the leak, and 1,200 square feet of pasture between the location and lease road was affected by misting. A vacuum truck was dispatched to the Site and approximately 40 bbls of free-standing fluid were recovered. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on September 1, 2016, and was assigned Remediation Permit (RP) Number 2RP-3863 (Attachment 1).

This 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 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. This release is categorized as a Tier II site in the Compliance Agreement, meaning remediation of the release began prior to August 14, 2018, the effective date of 19.15.29 NMAC. Based on the results of the confirmation soil sampling conducted after impacted soil was removed, XTO is submitting this closure report and requesting no further action for this release event.

BACKGROUND

According to Section 12 of 19.15.29 NMAC, LTE applied Table 1, *Closure Criteria for Soils Impacted by a Release*. 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 and known aquifer properties. The nearest permitted water well is C 02492 POD2, located approximately 1,794 feet southwest of the Site, with a depth to groundwater of 150 feet bgs and a total depth of 300 feet bgs. The elevation of the water well is 10 feet below the elevation of the Site. The Site is greater than 1,000 feet from a water source and greater than 200 feet from a private domestic water source. The closest significant watercourse to the Site is a dry wash located approximately 1.52 miles northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. Based on these criteria, the following remediation action levels apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride.

SOIL SAMPLING

On February 5, 2018, an LTE scientist collected six preliminary soil samples (SS1 through SS6) to assess the lateral extent of impacted soil in the release area. The soil sample locations were selected based on information provided on the initial Form C-141 and field observations (Figure 2). To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected at approximately 0.5 feet bgs.

The soil samples were screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp. The soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis, and immediately placed on ice. The samples were shipped to Xenco Laboratories (Xenco) in Midland, Texas, at 4 degrees Celsius (°C) under strict chain-of-custody procedures for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) by EPA Method 8015 Modified, and chloride by EPA Method 300. The laboratory analytical results are depicted on Figure 2 and summarized in Table 1, and the full analytical reports are included in Attachment 2.

EXCAVATION AND SITE CHARACTERIZATION ACTIVITIES

Based on the analytical results of the initial soil samples, LTE personnel returned to the Site to excavate impacted soil in the area around initial soil sample SS1, which contained concentrations of GRO/DRO and TPH exceeding NMOCD Table 1 Closure Criteria. All other preliminary samples

were compliant with NMOCD Table 1 Closure Criteria for benzene, BTEX, GRO/DRO, TPH, and chloride concentrations. Due to the high density of subsurface lines and proximity of processing equipment, a hydro-vacuum was used. To direct excavation activities, LTE screened soil using a PID and Hach® chloride QuanTab® test strips.

The excavation measured approximately 142 square feet and was completed to a depth of 1.5 feet bgs (Figure 2). Approximately eight cubic yards of impacted soil were removed via hydro-vacuum from the excavation and properly disposed of at the R360 Landfill in Hobbs, New Mexico.

LTE collected 5-point composite samples, each representing a 200 square foot area, from the excavation floor and sidewalls on December 4, 2018. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 and SW02 were collected from the walls of the excavation at depths ranging from 0 to 1.5 feet bgs. Composite soil sample FS01 was collected from the floor of the excavation at a depth of 1.5 feet bgs.

LTE returned to the Site on February 2, 2019, to collect site characterization samples using a hand auger. Discrete soil samples BH01 through BH07, BH01A through BH07A, SS4A, and SS5A were collected between 1 foot and 4 feet bgs (Figure 2).

ANALYTICAL RESULTS

Laboratory analytical results indicated that one of the preliminary soil samples, SS1 at 0.5 feet bgs, exceeded the NMOCD Table 1 closure criteria for GRO/DRO and TPH. Impacted soil was excavated in the area of sample SS1. Following removal of the impacted soil, excavation confirmation samples (SW01, SW02, and FS01) were compliant with NMOCD for benzene, BTEX, TPH, GRO/DRO, and chloride. Laboratory analytical results for all site characterization soil samples were compliant with the NMOCD Table 1 closure criteria for benzene, BTEX, GRO/DRO, TPH, and chloride. Results are presented on Figure 2 and summarized in Table 1, and the complete analytical reports are included as Attachment 2.

Laboratory analytical results for chloride concentrations in soil samples collected from the top four feet of subsurface in the pasture south of the well pad were compared to 600 mg/kg as required by 19.15.29.13. D (1) NMAC. Soil samples SS4, SS4A, SS5, SS5A, BH07, and BH07A contained chloride concentrations less than 600 mg/kg.

CONCLUSIONS

Laboratory analytical results for final confirmation soil samples and site characterization soil samples on the well pad indicated that benzene, BTEX, GRO/DRO, TPH, and chloride concentrations are compliant with NMOCD Table 1 closure criteria. Samples collected in the pasture were compliant with NMOCD Table 1 Closure Criteria for benzene, BTEX, GRO/DRO, and

TPH concentrations. Samples collected in the pasture area affected by misting did not exceed 600 mg/kg chloride concentration. Based on results of soil sampling presented herein, XTO requests no further action for Remediation Permit Number 2RP-3863. Upon approval of this request, XTO will backfill and recontour the excavation. An updated NMOCD Form C-141 for this release is included in Attachment 1, the Photographic Log is included as Attachment 3, and soil sample logs are included as Attachment 4.

If you have any questions or comments, please do not hesitate to contact Adrian Baker at (432) 887-1255 or abaker@ltenv.com.

Sincerely,
LT ENVIRONMENTAL, INC.

Adrian Baker
Project Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Deborah McKinney, BLM
Jim Amos, BLM

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-3863)
Attachment 2	Laboratory Analytical Reports
Attachment 3	Photographic Log
Attachment 4	Soil Sample Log

FIGURES

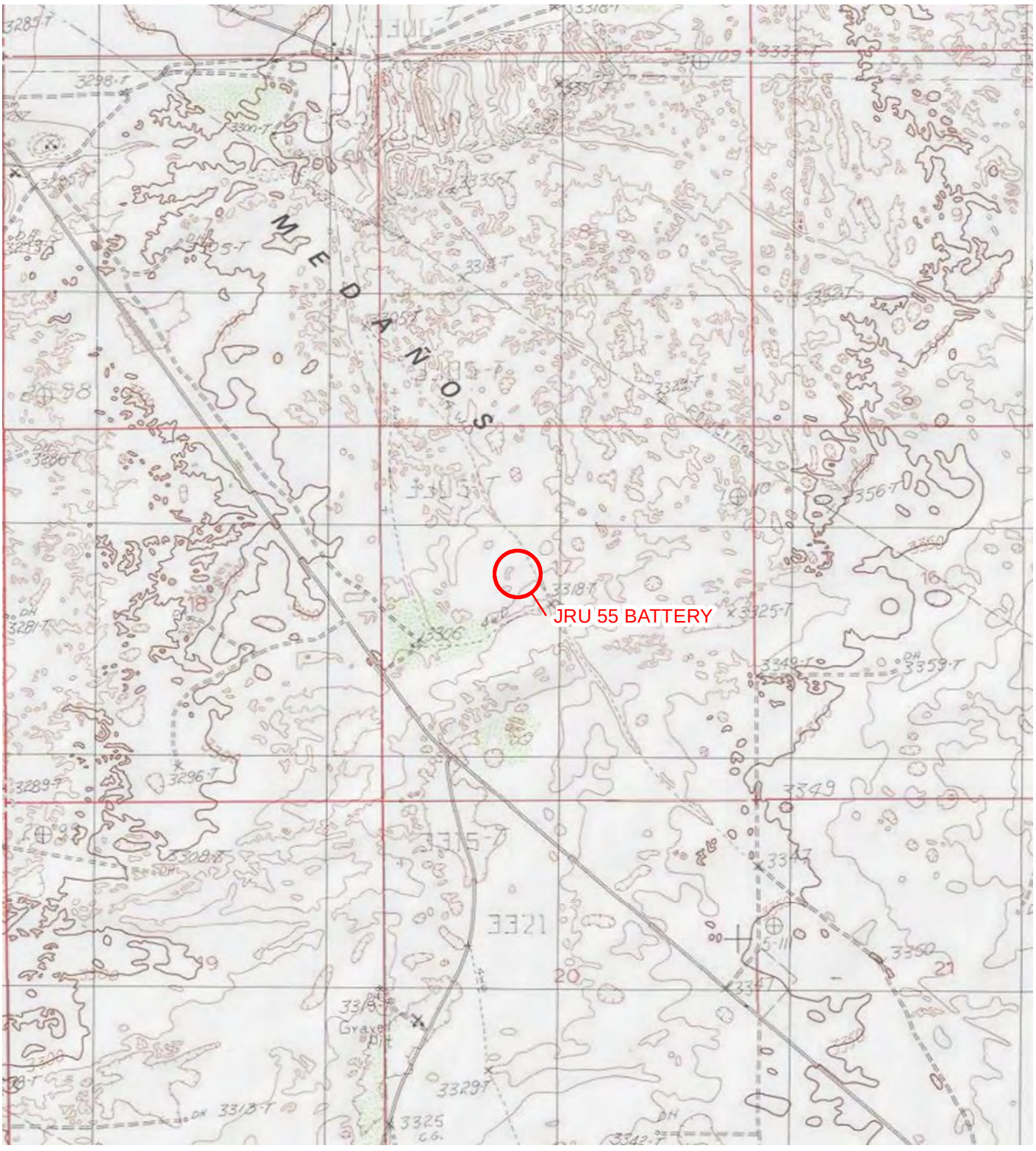

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-3863

FIGURE 1
SITE LOCATION MAP
JRU 55 BATTERY
UNIT F SEC 17 T23S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918027_JRU 55 TANK BATTERY\012918027_FIG01_SL_2018.mxd

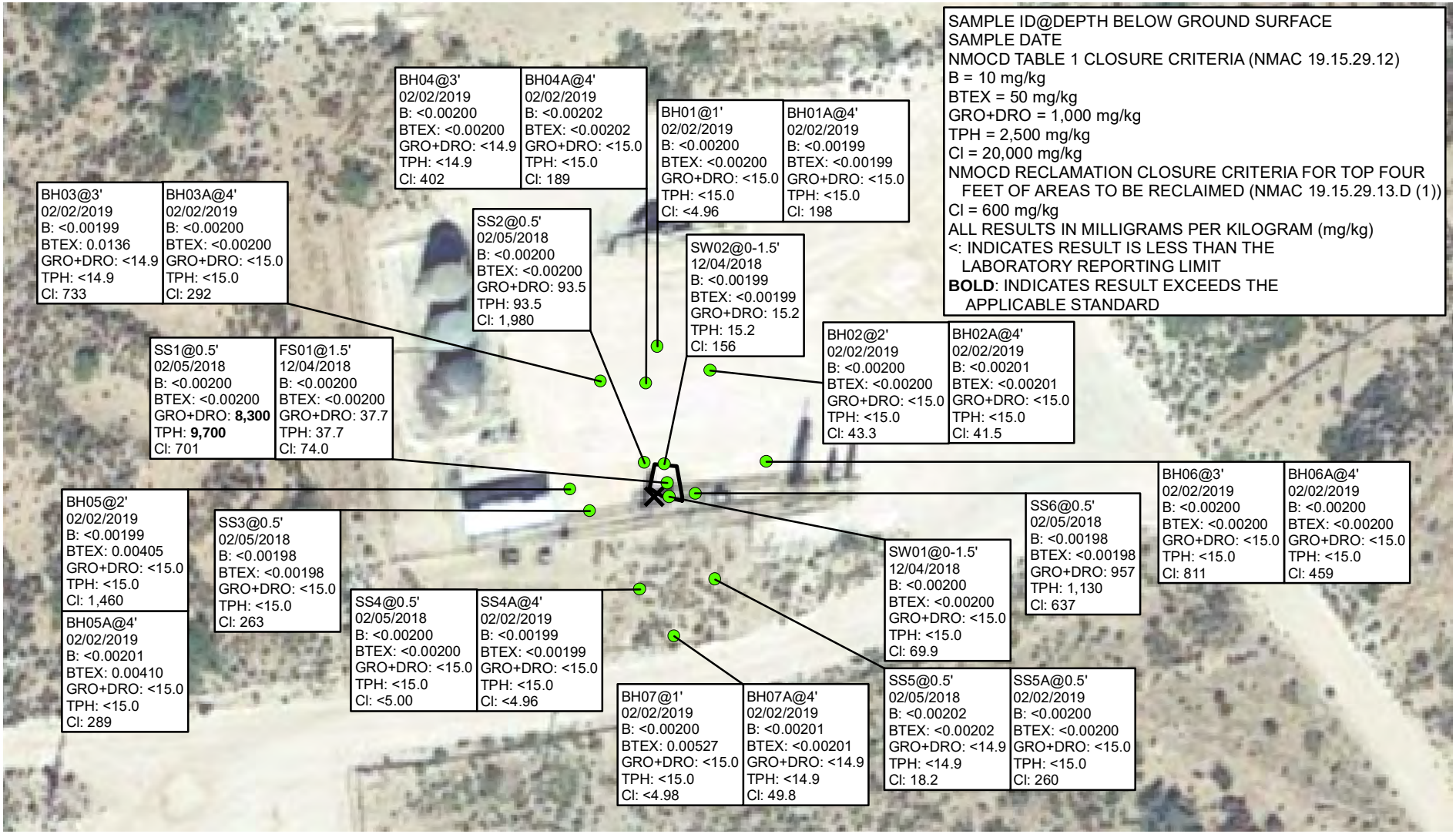

IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

✕ RELEASE LOCATION

● SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS

▭ EXCAVATION EXTENT

0 60 120

Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO – GASOLINE RANGE ORGANICS
DRO – DIESEL RANGE ORGANICS
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-3863

FIGURE 2
SOIL SAMPLE LOCATIONS
JRU 55 BATTERY
UNIT F SEC 17 T23S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918027_JRU 55 TANK BATTERY\012918027_FIG02_FINAL SS_2018_3863.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

JRU 55 BATTERY
REMEDIATION PERMIT NUMBER 2RP-3863
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)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	02/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<74.9	8,300	1,400	**8,300**	**9,700**	701
SS2	0.5	02/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	93.5	<15.0	93.5	93.5	1,980
SS3	0.5	02/05/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	263
SS4	0.5	02/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00*
SS5	0.5	02/05/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	<14.9	18.2*
SS6	0.5	02/05/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	957	176	957	1,130	637
FS01	1.5	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	37.7	<14.9	37.7	37.7	74.0
SW01	0 - 1.5	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	69.9
SW02	0 - 1.5	12/04/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	15.2	<15.0	15.2	15.2	156
BH01	1	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
BH01A	4	02/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	198
BH02	2	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	43.3
BH02A	4	02/02/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	41.5
BH03	3	02/02/2019	<0.00199	<0.00199	<0.00199	0.0136	0.0136	<14.9	<14.9	<14.9	<14.9	<14.9	733
BH03A	4	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	292
BH04	3	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	402
BH04A	4	02/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	189
BH05	2	02/02/2019	<0.00199	<0.00199	<0.00199	0.00405	0.00405	<15.0	<15.0	<15.0	<15.0	<15.0	1,460
BH05A	4	02/02/2019	<0.00201	<0.00201	<0.00201	0.00410	0.00410	<15.0	<15.0	<15.0	<15.0	<15.0	289
BH06	3	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	811
BH06A	4	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	459
BH07	1	02/02/2019	<0.00200	<0.00200	<0.00200	0.00527	0.00527	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98*
BH07A	4	02/02/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	49.8*
SS4A	4	02/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96*
SS5A	4	02/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	260*
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000

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
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
NMAC - New Mexico Administrative Code

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-3863)

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

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

ARTESIA DISTRICT
SEP 06 2016
RECEIVED

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1625130275 2100737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU 55 Battery	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-27589

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	17	23S	31E	2100	North	1900	West	Eddy

Latitude 32.305973° **Longitude** -103.802098°

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 43 bbl	Volume Recovered: 40 bbl
Source of Release: Three Phase Vessel	Date and Hour of Occurrence: 8/26/2016 time unknown	Date and Hour of Discovery: 8/26/2016 10:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher/Heather Patterson (NMOCD), Shelly Tucker (BLM)	
By Whom? Amy Ruth	Date and Hour: 8/26/2016 at 3:08 pm by email	
Was a Watercourse Reached? ☐ Yes ☒ 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.*
A gasket in the upper portion of the three phase vessel failed. The failed gasket material was replaced.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 6,700 square feet of the caliche pad and misted 1,200 square feet of pasture area between the location and lease road to the south. Vacuum trucks recovered 40 bbl of standing fluid.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:

Printed Name: Amy C. Ruth

Title: EHS Remediation Specialist

E-mail Address: ACRuth@basspet.com

Date: 9/1/2016 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 9/6/16 Expiration Date: N/A

Conditions of Approval:
Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 10/6/16

Attached ☐

2RP-3863

* 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-3863
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy, Inc.	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 Suite 704 Carlsbad, NM 8820	

Location of Release Source

Latitude 32.305973 Longitude -103.802098
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU 55 Battery	Site Type Exploration and Production
Date Release Discovered 8/26/2016	API# *(if applicable)* 30-015-27589

Unit Letter	Section	Township	Range	County
F	17	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)

☒ Crude Oil	Volume Released (bbls) 43	Volume Recovered (bbls) 40
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A gasket in the upper portion of the three phase vessel failed. The failed gasket material was replaced. The leak affected 6,700 square feet of the caliche pad and misted 1,200 square feet of pasture area between the location and lease road to the south. Vacuum trucks recovered 40 barrels of standing fluid.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3863
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Amy Ruth notified Mike Batcher/ Heather Patterson (NMOCD) and Shelly Tucker (BLM) on 8/26/16 at 3:08 via email.

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 2/11/2019

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3863
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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3863
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 Coordinator

Signature: Date: 2/11/2019

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3863
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.***

[X] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[X] 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)

[X] Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

[X] 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 Coordinator

Signature: Date: 2/11/2019

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:

Printed Name: Title:

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 575578

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 55 Battery/ 30-015-27589

14-FEB-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

14-FEB-18

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

Reference: XENCO Report No(s): **575578**
JRU 55 Battery/ 30-015-27589
Project Address: NM

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) 575578. 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. 575578 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Odessa Laboratory Director

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 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	02-05-18 16:59	6"	575578-001
SS2	S	02-05-18 17:01	6"	575578-002
SS3	S	02-05-18 17:04	6"	575578-003
SS4	S	02-05-18 17:07	6"	575578-004
SS5	S	02-05-18 17:10	6"	575578-005
SS6	S	02-05-18 17:13	6"	575578-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 55 Battery/ 30-015-27589

Project ID:
Work Order Number(s): *575578*

Report Date: *14-FEB-18*
Date Received: *02/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040738 BTEX by EPA 8021B

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

Lab Sample ID 575578-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 575578-001, -002, -003, -004, -005, -006.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 575578

LT Environmental, Inc., Arvada, CO

Project Name: JRU 55 Battery/ 30-015-27589

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Feb-07-18 08:00 am
Report Date: 14-FEB-18
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	575578-001		575578-002		575578-003		575578-004		575578-005		575578-006	
		Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
		Depth:	6"-		6"-		6"-		6"-		6"-		6"-	
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Feb-05-18 16:59		Feb-05-18 17:01		Feb-05-18 17:04		Feb-05-18 17:07		Feb-05-18 17:10		Feb-05-18 17:13	
BTEX by EPA 8021B		Extracted:	Feb-08-18 08:45		Feb-08-18 08:45		Feb-08-18 08:45		Feb-08-18 08:45		Feb-08-18 08:45		Feb-08-18 08:45	
		Analyzed:	Feb-12-18 12:11		Feb-12-18 12:11		Feb-12-18 12:11		Feb-12-18 12:11		Feb-12-18 12:11		Feb-12-18 12:11	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
Toluene			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
Ethylbenzene			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
m,p-Xylenes			<0.00401	0.00401	<0.00400	0.00400	<0.00396	0.00396	<0.00400	0.00400	<0.00404	0.00404	<0.00396	0.00396
o-Xylene			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
Total Xylenes			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
Total BTEX			<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198
Inorganic Anions by EPA 300		Extracted:	Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00		Feb-13-18 15:00	
		Analyzed:	Feb-13-18 20:49		Feb-13-18 21:10		Feb-13-18 21:17		Feb-13-18 21:38		Feb-13-18 21:45		Feb-13-18 21:52	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride			701	4.98	1980	25.0	263	4.91	<5.00	5.00	18.2	4.96	637	4.97
TPH by SW8015 Mod		Extracted:	Feb-08-18 14:00		Feb-08-18 14:00		Feb-08-18 14:00		Feb-08-18 14:00		Feb-08-18 14:00		Feb-08-18 14:00	
		Analyzed:	Feb-08-18 22:11		Feb-08-18 22:31		Feb-08-18 22:51		Feb-08-18 23:12		Feb-08-18 23:34		Feb-09-18 06:53	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)			<74.9	74.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)			8300	74.9	93.5	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	957	15.0
Oil Range Hydrocarbons (ORO)			1400	74.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	176	15.0
Total TPH			9700	74.9	93.5	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	1130	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Odessa Laboratory Director

Final 1.000

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-001	Date Collected:	02.05.18 16.59	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**701**	4.98	mg/kg	02.13.18 20.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<74.9	74.9	mg/kg	02.08.18 22.11	U	5
Diesel Range Organics (DRO)	C10C28DRO	**8300**	74.9	mg/kg	02.08.18 22.11		5
Oil Range Hydrocarbons (ORO)	PHCG2835	**1400**	74.9	mg/kg	02.08.18 22.11		5
Total TPH	PHC635	**9700**	74.9	mg/kg	02.08.18 22.11		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.08.18 22.11	
o-Terphenyl	84-15-1	81	%	70-135	02.08.18 22.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-001	Date Collected:	02.05.18 16.59	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	80-120	02.12.18 12.11	
4-Bromofluorobenzene	460-00-4	99	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-002	Date Collected:	02.05.18 17.01	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1980**	25.0	mg/kg	02.13.18 21.10		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.08.18 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	**93.5**	15.0	mg/kg	02.08.18 22.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.08.18 22.31	U	1
Total TPH	PHC635	**93.5**	15.0	mg/kg	02.08.18 22.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.08.18 22.31	
o-Terphenyl	84-15-1	91	%	70-135	02.08.18 22.31	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-002	Date Collected:	02.05.18 17.01	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	80-120	02.12.18 12.11	
4-Bromofluorobenzene	460-00-4	98	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-003	Date Collected:	02.05.18 17.04	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**263**	4.91	mg/kg	02.13.18 21.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.08.18 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.08.18 22.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.08.18 22.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.08.18 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.08.18 22.51	
o-Terphenyl	84-15-1	90	%	70-135	02.08.18 22.51	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-003	Date Collected:	02.05.18 17.04	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	80-120	02.12.18 12.11	
4-Bromofluorobenzene	460-00-4	100	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-004	Date Collected:	02.05.18 17.07	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.13.18 21.38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.08.18 23.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.08.18 23.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.08.18 23.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.08.18 23.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.08.18 23.12	
o-Terphenyl	84-15-1	87	%	70-135	02.08.18 23.12	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-004	Date Collected:	02.05.18 17.07	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	80-120	02.12.18 12.11	
4-Bromofluorobenzene	460-00-4	108	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-005	Date Collected:	02.05.18 17.10	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.2**	4.96	mg/kg	02.13.18 21.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.08.18 23.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.08.18 23.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.08.18 23.34	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.08.18 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	02.08.18 23.34	
o-Terphenyl	84-15-1	87	%	70-135	02.08.18 23.34	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-005	Date Collected:	02.05.18 17.10	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	80-120	02.12.18 12.11	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-006	Date Collected:	02.05.18 17.13	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	02.13.18 15.00	Basis:	Wet Weight
Seq Number:	3040997				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**637**	4.97	mg/kg	02.13.18 21.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.08.18 14.00	Basis:	Wet Weight
Seq Number:	3040649				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.09.18 06.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**957**	15.0	mg/kg	02.09.18 06.53		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**176**	15.0	mg/kg	02.09.18 06.53		1
Total TPH	PHC635	**1130**	15.0	mg/kg	02.09.18 06.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.09.18 06.53	
o-Terphenyl	84-15-1	87	%	70-135	02.09.18 06.53	

Certificate of Analytical Results 575578

LT Environmental, Inc., Arvada, CO

JRU 55 Battery/ 30-015-27589

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575578-006	Date Collected:	02.05.18 17.13	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	80-120	02.12.18 12.11	
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.12.18 12.11	

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

+ NELAC certification not offered for this compound.

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

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

QC Summary 575578

LT Environmental, Inc.

JRU 55 Battery/ 30-015-27589

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Solid — Date Prep: 02.13.18
MB Sample Id: 7639086-1-BLK — LCS Sample Id: 7639086-1-BKS — LCSD Sample Id: 7639086-1-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	271	108	90-110	1	20	mg/kg	02.13.18 18:57	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 575576-004 — MS Sample Id: 575576-004 S — MSD Sample Id: 575576-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.6	250	296	109	310	115	90-110	5	20	mg/kg	02.13.18 19:18	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040997 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 575578-001 — MS Sample Id: 575578-001 S — MSD Sample Id: 575578-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	701	249	940	96	960	104	90-110	2	20	mg/kg	02.13.18 20:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040649 — Matrix: Solid — Date Prep: 02.08.18
MB Sample Id: 7638811-1-BLK — LCS Sample Id: 7638811-1-BKS — LCSD Sample Id: 7638811-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	900	90	899	90	70-135	0	35	mg/kg	02.08.18 19:04	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1030	103	70-135	0	35	mg/kg	02.08.18 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		103		103		70-135	%	02.08.18 19:04
o-Terphenyl	104		111		101		70-135	%	02.08.18 19:04

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
E = MSD/LCSD Result

QC Summary 575578

LT Environmental, Inc.

JRU 55 Battery/ 30-015-27589

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3040649 | Matrix: Soil | Date Prep: 02.08.18
Parent Sample Id: 575576-001 | MS Sample Id: 575576-001 S | MSD Sample Id: 575576-001 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)	44.5	999	916	87	978	93	70-135	7	35	mg/kg	02.08.18 20:07	
Diesel Range Organics (DRO)	113	999	1050	94	1130	102	70-135	7	35	mg/kg	02.08.18 20:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		104		70-135	%	02.08.18 20:07
o-Terphenyl	88		99		70-135	%	02.08.18 20:07

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3040738 | Matrix: Solid | Date Prep: 02.08.18
MB Sample Id: 7638875-1-BLK | LCS Sample Id: 7638875-1-BKS | LCSD Sample Id: 7638875-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0821	83	0.0760	76	70-130	8	35	mg/kg	02.12.18 12:11	
Toluene	<0.00199	0.0994	0.0844	85	0.0813	81	70-130	4	35	mg/kg	02.12.18 12:11	
Ethylbenzene	<0.00199	0.0994	0.0895	90	0.0861	86	71-129	4	35	mg/kg	02.12.18 12:11	
m,p-Xylenes	<0.00398	0.199	0.174	87	0.167	84	70-135	4	35	mg/kg	02.12.18 12:11	
o-Xylene	<0.00199	0.0994	0.0884	89	0.0855	86	71-133	3	35	mg/kg	02.12.18 12:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		93		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	98		102		99		80-120	%	02.12.18 12:11

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3040738 | Matrix: Soil | Date Prep: 02.08.18
Parent Sample Id: 575578-002 | MS Sample Id: 575578-002 S | MSD Sample Id: 575578-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.103	102	0.125	125	70-130	19	35	mg/kg	02.12.18 12:11	
Toluene	<0.00202	0.101	0.0648	64	0.0677	68	70-130	4	35	mg/kg	02.12.18 12:11	X
Ethylbenzene	<0.00202	0.101	0.0603	60	0.0673	67	71-129	11	35	mg/kg	02.12.18 12:11	X
m,p-Xylenes	<0.00404	0.202	0.117	58	0.131	65	70-135	11	35	mg/kg	02.12.18 12:11	X
o-Xylene	<0.00202	0.101	0.0605	60	0.0674	67	71-133	11	35	mg/kg	02.12.18 12:11	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		96		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	106		100		80-120	%	02.12.18 12:11

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

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

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

Final 1.000

XENCO LABORATORIES
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CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

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Xenco Quote #:
Xenco Job #: 575578

Client / Reporting Information

Company Name / Branch: LTE / Permian
Company Address: 3300 N. A Street Bldg 1 Suite 103
Email: Abaker@LTEnv.com
Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: JRU 55 Battery / 30-015-27589
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 30015 27589

Analytical Information: Btex M. 8021; TPH M. 8015; Chloride M 300.1

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Btex M. 8021	TPH M. 8015	Chloride M 300.1	Field Comments
1	SS1	6"	2/5/18	16:59	S	1									/	/	/	
2	SS2	↓	↓	17:01	S	1									/	/	/	
3	SS3	↓	↓	17:04	S	1									/	/	/	
4	SS4	↓	↓	17:07	S	1									/	/	/	
5	SS5	↓	↓	17:10	S	1									/	/	/	
6	SS6	↓	↓	17:13	S	1									/	/	/	
7																		
8																		
9																		
10	NFE ARW																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

Standard tat

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes: Heavier Tremor

Temp: 4
IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.8

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Relinquished by Sampler: [signature]	2/6/18 17:45	1 [signature]	2 [signature]	2/7/18 Am	2 [signature]
3 Relinquished by:	Date Time:	3 Received By:	4 Relinquished By:	Date Time:	4 Received By:
5 Relinquished by:	Date Time:	5 Received By:	Custody Seal #	Preserved where applicable	On Ice ☒ / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/07/2018 08:00:00 AM

Work Order #: 575578

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)?	3.8
#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: Connie Hernandez Date: 02/07/2018

Checklist reviewed by: Jessica Kramer Date: 02/07/2018

Jessica Kramer

Analytical Report 607742

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 55

11-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)

11-DEC-18

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

Reference: XENCO Report No(s): **607742**
JRU 55
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) 607742. 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. 607742 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 607742

LT Environmental, Inc., Arvada, CO

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Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	12-04-18 13:00	1.5 ft	607742-001
SW01	S	12-04-18 13:10	0 - 1.5 ft	607742-002
SW02	S	12-04-18 13:20	0 - 1.5 ft	607742-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 55

Project ID:
Work Order Number(s): *607742*

Report Date: *11-DEC-18*
Date Received: *12/06/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3072006 Inorganic Anions by EPA 300
Lab Sample ID 607742-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 607742-001, -002, -003.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3072349 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 607742

LT Environmental, Inc., Arvada, CO

Project Name: JRU 55

Project Id:
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Thu Dec-06-18 11:15 am
Report Date: 11-DEC-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	607742-001		607742-002		607742-003					
	Field Id:	FS01		SW01		SW02					
	Depth:	1.5- ft		0-1.5 ft		0-1.5 ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Dec-04-18 13:00		Dec-04-18 13:10		Dec-04-18 13:20					
BTEX by EPA 8021B	***Extracted:***	Dec-10-18 09:30		Dec-10-18 09:30		Dec-10-18 09:30					
	Analyzed:	Dec-10-18 14:51		Dec-10-18 15:10		Dec-10-18 15:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Dec-06-18 14:00		Dec-06-18 14:00		Dec-06-18 14:00					
	Analyzed:	Dec-07-18 05:13		Dec-07-18 02:44		Dec-07-18 05:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		74.0	4.99	69.9	4.97	156	4.97				
TPH by SW8015 Mod	***Extracted:***	Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00					
	Analyzed:	Dec-08-18 17:53		Dec-08-18 18:13		Dec-08-18 18:33					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		37.7	14.9	<15.0	15.0	15.2	15.0				
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0				
Total TPH		37.7	14.9	<15.0	15.0	15.2	15.0				

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 607742

LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-001	Date Collected:	12.04.18 13.00	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.06.18 14.00	Basis:	Wet Weight
Seq Number:	3072006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**74.0**	4.99	mg/kg	12.07.18 05.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.08.18 17.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**37.7**	14.9	mg/kg	12.08.18 17.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.08.18 17.53	U	1
Total TPH	PHC635	**37.7**	14.9	mg/kg	12.08.18 17.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.08.18 17.53	
o-Terphenyl	84-15-1	108	%	70-135	12.08.18 17.53	

Certificate of Analytical Results 607742

LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-001	Date Collected:	12.04.18 13.00	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.10.18 14.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.18 14.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	70-130	12.10.18 14.51	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.10.18 14.51	

Certificate of Analytical Results 607742

LT Environmental, Inc., Arvada, CO

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Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-002	Date Collected:	12.04.18 13.10	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.06.18 14.00	Basis:	Wet Weight
Seq Number:	3072006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.9**	4.97	mg/kg	12.07.18 02.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 18.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.08.18 18.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 18.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.08.18 18.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.08.18 18.13	
o-Terphenyl	84-15-1	101	%	70-135	12.08.18 18.13	

Certificate of Analytical Results 607742

LT Environmental, Inc., Arvada, CO

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Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-002	Date Collected:	12.04.18 13.10	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.10.18 15.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.18 15.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.10.18 15.10	
4-Bromofluorobenzene	460-00-4	81	%	70-130	12.10.18 15.10	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-003	Date Collected:	12.04.18 13.20	Sample Depth:	0 - 1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.06.18 14.00	Basis:	Wet Weight
Seq Number:	3072006				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**156**	4.97	mg/kg	12.07.18 05.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 18.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.2**	15.0	mg/kg	12.08.18 18.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 18.33	U	1
Total TPH	PHC635	**15.2**	15.0	mg/kg	12.08.18 18.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.08.18 18.33	
o-Terphenyl	84-15-1	96	%	70-135	12.08.18 18.33	

Certificate of Analytical Results 607742

LT Environmental, Inc., Arvada, CO

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Sample Id:	**SW02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607742-003	Date Collected:	12.04.18 13.20	Sample Depth:	0 - 1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.10.18 15.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.10.18 15.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.10.18 15.29	
4-Bromofluorobenzene	460-00-4	84	%	70-130	12.10.18 15.29	

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

QC Summary 607742

LT Environmental, Inc.

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Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3072006 — Matrix: Solid — Date Prep: 12.06.18
MB Sample Id: 7667549-1-BLK — LCS Sample Id: 7667549-1-BKS — LCSD Sample Id: 7667549-1-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	261	104	252	101	90-110	4	20	mg/kg	12.07.18 02:32	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3072006 — Matrix: Soil — Date Prep: 12.06.18
Parent Sample Id: 607588-001 — MS Sample Id: 607588-001 S — MSD Sample Id: 607588-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.46	250	260	102	248	97	90-110	5	20	mg/kg	12.07.18 04:17	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3072006 — Matrix: Soil — Date Prep: 12.06.18
Parent Sample Id: 607742-002 — MS Sample Id: 607742-002 S — MSD Sample Id: 607742-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	69.9	249	283	86	266	79	90-110	6	20	mg/kg	12.07.18 02:51	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3072258 — Matrix: Solid — Date Prep: 12.07.18
MB Sample Id: 7667653-1-BLK — LCS Sample Id: 7667653-1-BKS — LCSD Sample Id: 7667653-1-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	997	100	964	96	70-135	3	20	mg/kg	12.08.18 12:18	
Diesel Range Organics (DRO)	<8.13	1000	994	99	954	95	70-135	4	20	mg/kg	12.08.18 12:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		120		114		70-135	%	12.08.18 12:18
o-Terphenyl	97		107		99		70-135	%	12.08.18 12:18

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 607742

LT Environmental, Inc.

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Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3072258 | Matrix: Soil | Date Prep: 12.07.18
Parent Sample Id: 607739-001 | MS Sample Id: 607739-001 S | MSD Sample Id: 607739-001 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	1010	101	901	90	70-135	11	20	mg/kg	12.08.18 13:16	
Diesel Range Organics (DRO)	27.9	997	1030	101	920	89	70-135	11	20	mg/kg	12.08.18 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		105		70-135	%	12.08.18 13:16
o-Terphenyl	105		92		70-135	%	12.08.18 13:16

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3072349 | Matrix: Solid | Date Prep: 12.10.18
MB Sample Id: 7667763-1-BLK | LCS Sample Id: 7667763-1-BKS | LCSD Sample Id: 7667763-1-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	0.0994	0.111	112	0.105	105	70-130	6	35	mg/kg	12.10.18 12:58	
Toluene	<0.000453	0.0994	0.100	101	0.0955	96	70-130	5	35	mg/kg	12.10.18 12:58	
Ethylbenzene	<0.000561	0.0994	0.108	109	0.103	103	70-130	5	35	mg/kg	12.10.18 12:58	
m,p-Xylenes	<0.00101	0.199	0.199	100	0.190	95	70-130	5	35	mg/kg	12.10.18 12:58	
o-Xylene	<0.000342	0.0994	0.0971	98	0.0931	93	70-130	4	35	mg/kg	12.10.18 12:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		102		70-130	%	12.10.18 12:58
4-Bromofluorobenzene	79		73		75		70-130	%	12.10.18 12:58

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3072349 | Matrix: Soil | Date Prep: 12.10.18
Parent Sample Id: 607687-001 | MS Sample Id: 607687-001 S | MSD Sample Id: 607687-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000770	0.200	0.132	66	0.140	70	70-130	6	35	mg/kg	12.10.18 13:36	X
Toluene	<0.000911	0.200	0.102	51	0.0983	49	70-130	4	35	mg/kg	12.10.18 13:36	X
Ethylbenzene	<0.00113	0.200	0.0939	47	0.0722	36	70-130	26	35	mg/kg	12.10.18 13:36	X
m,p-Xylenes	<0.00203	0.400	0.173	43	0.130	33	70-130	28	35	mg/kg	12.10.18 13:36	X
o-Xylene	<0.000689	0.200	0.0841	42	0.0646	32	70-130	26	35	mg/kg	12.10.18 13:36	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	12.10.18 13:36
4-Bromofluorobenzene	77		78		70-130	%	12.10.18 13:36

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

Final 1.000

XENCO LABORATORIES

Chain of Custody

Work Order No: 607742

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

www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	Company Name:	XTO Energy
Address:	3300 N. A St.	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-704-5178	Email:	a.baker@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU 55	Turn Around	
Project Number:		Routine	☒
P.O. Number:		Rush:	—
Sampler's Name:	Lynda Lowrance	Due Date:	12/12

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.4/3.1	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)
FS01	S	12/4	13:00	1.5'	1	X	X	X
SW01	S	12/4	13:10	0-1.5'	1	X	X	X
SW02	S	12/4	13:20	0-1.5'	1	X	X	X

Work Order Notes

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

Sample Comments

2RP-3863

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			12/04/2018 17:10	2	12/5/18 11:10	12/5/18-11:05
3		12/6 1115		4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2018 11:15:00 AM

Work Order #: 607742

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)?	3.1
#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: 12/06/2018

Checklist reviewed by: Jessica Kramer Date: 12/06/2018

Analytical Report 613477

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU 55

012918027 2RP3863

07-FEB-19

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)

07-FEB-19

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

Reference: XENCO Report No(s): **613477**
JRU 55
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) 613477. 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. 613477 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica 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 613477

LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	02-02-19 07:55	1 ft	613477-001
BH01A	S	02-02-19 08:10	4 ft	613477-002
BH02	S	02-02-19 08:25	2 ft	613477-003
BH02A	S	02-02-19 08:55	4 ft	613477-004
BH03	S	02-02-19 09:15	3 ft	613477-005
BH03A	S	02-02-19 09:20	4 ft	613477-006
BH04	S	02-02-19 09:30	3 ft	613477-007
BH04A	S	02-02-19 10:05	4 ft	613477-008
BH05	S	02-02-19 10:15	2 ft	613477-009
BH05A	S	02-02-19 10:25	4 ft	613477-010
SS4A	S	02-02-19 11:45	4 ft	613477-011
SS5A	S	02-02-19 11:45	4 ft	613477-012
BH06	S	02-02-19 12:35	3 ft	613477-013
BH06A	S	02-02-19 12:45	4 ft	613477-014
BH07	S	02-02-19 13:20	1 ft	613477-015
BH07A	S	02-02-19 13:50	4 ft	613477-016

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 55

Project ID: *012918027 2RP3863*
Work Order Number(s): *613477*

Report Date: *07-FEB-19*
Date Received: *02/05/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3078196 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 613477-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). o-Xylene recovered below QC limits in the Matrix Spike. Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 613477-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016.
The Laboratory Control Sample for Toluene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 613477

LT Environmental, Inc., Arvada, CO

Project Name: JRU 55

Project Id: 012918027 2RP3863
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Feb-05-19 12:39 pm
Report Date: 07-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	613477-001		613477-002		613477-003		613477-004		613477-005		613477-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	1- ft		4- ft		2- ft		4- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-02-19 07:55		Feb-02-19 08:10		Feb-02-19 08:25		Feb-02-19 08:55		Feb-02-19 09:15		Feb-02-19 09:20	
BTEX by EPA 8021B	***Extracted:***	Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30	
	Analyzed:	Feb-05-19 18:56		Feb-05-19 19:18		Feb-05-19 19:39		Feb-05-19 20:01		Feb-05-19 20:22		Feb-05-19 20:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402	0.0100	0.00398	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	0.00357	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	0.0136	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	0.0136	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00	
	Analyzed:	Feb-05-19 21:37		Feb-05-19 21:55		Feb-05-19 22:01		Feb-05-19 22:08		Feb-05-19 22:14		Feb-06-19 10:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.96	4.96	198	4.98	43.3	4.99	41.5	5.00	733	5.00	292	4.96
TPH by SW8015 Mod	***Extracted:***	Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00	
	Analyzed:	Feb-05-19 23:15		Feb-06-19 00:13		Feb-06-19 00:33		Feb-06-19 00:53		Feb-06-19 01:12		Feb-06-19 01:31	
	Units/RL:	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	<15.0	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	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 613477

LT Environmental, Inc., Arvada, CO

Project Name: JRU 55

Project Id: 012918027 2RP3863
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Feb-05-19 12:39 pm
Report Date: 07-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	613477-007		613477-008		613477-009		613477-010		613477-011		613477-012	
	Field Id:	BH04		BH04A		BH05		BH05A		SS4A		SS5A	
	Depth:	3- ft		4- ft		2- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-02-19 09:30		Feb-02-19 10:05		Feb-02-19 10:15		Feb-02-19 10:25		Feb-02-19 11:45		Feb-02-19 11:45	
BTEX by EPA 8021B	*Extracted:*	Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30	
	Analyzed:	Feb-05-19 21:04		Feb-05-19 21:26		Feb-05-19 21:47		Feb-05-19 22:09		Feb-05-19 23:34		Feb-05-19 23:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00403	0.00403	0.00405	0.00398	0.00410	0.00402	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	0.00405	0.00199	0.00410	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	0.00405	0.00199	0.00410	0.00201	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	*Extracted:*	Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00	
	Analyzed:	Feb-05-19 22:42		Feb-05-19 22:48		Feb-05-19 22:54		Feb-05-19 23:00		Feb-05-19 23:06		Feb-05-19 23:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		402	4.96	189	4.96	1460	4.98	289	5.00	<4.96	4.96	260	4.96
TPH by SW8015 Mod	*Extracted:*	Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00	
	Analyzed:	Feb-06-19 01:51		Feb-06-19 02:11		Feb-06-19 02:30		Feb-06-19 02:50		Feb-06-19 03:49		Feb-06-19 04:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 613477

LT Environmental, Inc., Arvada, CO

Project Name: JRU 55

Project Id: 012918027 2RP3863
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Feb-05-19 12:39 pm
Report Date: 07-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	613477-013		613477-014		613477-015		613477-016					
	Field Id:	BH06		BH06A		BH07		BH07A					
	Depth:	3- ft		4- ft		1- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Feb-02-19 12:35		Feb-02-19 12:45		Feb-02-19 13:20		Feb-02-19 13:50					
BTEX by EPA 8021B	***Extracted:***	Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30		Feb-05-19 14:30					
	Analyzed:	Feb-06-19 00:16		Feb-06-19 00:37		Feb-06-19 00:58		Feb-06-19 01:19					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	0.00527	0.00399	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	0.00527	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	0.00527	0.00200	<0.00201	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00		Feb-05-19 13:00					
	Analyzed:	Feb-05-19 23:31		Feb-05-19 23:53		Feb-05-19 23:59		Feb-06-19 00:05					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		811	4.97	459	5.01	<4.98	4.98	49.8	4.98				
TPH by SW8015 Mod	***Extracted:***	Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00		Feb-05-19 17:00					
	Analyzed:	Feb-06-19 04:28		Feb-06-19 04:47		Feb-06-19 05:07		Feb-06-19 05:27					
	Units/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	<14.9	14.9				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 613477

LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-001	Date Collected:	02.02.19 07.55	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	02.05.19 21.37	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.05.19 23.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.05.19 23.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.05.19 23.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.05.19 23.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	02.05.19 23.15	
o-Terphenyl	84-15-1	81	%	70-135	02.05.19 23.15	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-001	Date Collected:	02.02.19 07.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.05.19 18.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.05.19 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	02.05.19 18.56	
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.05.19 18.56	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-002	Date Collected:	02.02.19 08.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**198**	4.98	mg/kg	02.05.19 21.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 00.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 00.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 00.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.06.19 00.13	
o-Terphenyl	84-15-1	95	%	70-135	02.06.19 00.13	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-002	Date Collected:	02.02.19 08.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.05.19 19.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.05.19 19.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	02.05.19 19.18	
1,4-Difluorobenzene	540-36-3	82	%	70-130	02.05.19 19.18	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-003	Date Collected:	02.02.19 08.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.3**	4.99	mg/kg	02.05.19 22.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 00.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 00.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 00.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 00.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.06.19 00.33	
o-Terphenyl	84-15-1	105	%	70-135	02.06.19 00.33	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-003	Date Collected:	02.02.19 08.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.05.19 19.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.05.19 19.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.05.19 19.39	
4-Bromofluorobenzene	460-00-4	88	%	70-130	02.05.19 19.39	

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Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-004	Date Collected:	02.02.19 08.55	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.5**	5.00	mg/kg	02.05.19 22.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 00.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 00.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 00.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	02.06.19 00.53	
o-Terphenyl	84-15-1	87	%	70-135	02.06.19 00.53	

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JRU 55

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-004	Date Collected:	02.02.19 08.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.05.19 20.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.05.19 20.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	83	%	70-130	02.05.19 20.01	
4-Bromofluorobenzene	460-00-4	86	%	70-130	02.05.19 20.01	

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Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-005	Date Collected:	02.02.19 09.15	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**733**	5.00	mg/kg	02.05.19 22.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.06.19 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.06.19 01.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.06.19 01.12	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.06.19 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.06.19 01.12	
o-Terphenyl	84-15-1	91	%	70-135	02.06.19 01.12	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-005	Date Collected:	02.02.19 09.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.05.19 20.22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.05.19 20.22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.05.19 20.22	U	1
m,p-Xylenes	179601-23-1	**0.0100**	0.00398	mg/kg	02.05.19 20.22		1
o-Xylene	95-47-6	**0.00357**	0.00199	mg/kg	02.05.19 20.22		1
Total Xylenes	1330-20-7	**0.0136**	0.00199	mg/kg	02.05.19 20.22		1
Total BTEX		**0.0136**	0.00199	mg/kg	02.05.19 20.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.05.19 20.22	
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.05.19 20.22	

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JRU 55

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-006	Date Collected:	02.02.19 09.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**292**	4.96	mg/kg	02.06.19 10.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 01.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 01.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 01.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.06.19 01.31	
o-Terphenyl	84-15-1	90	%	70-135	02.06.19 01.31	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-006	Date Collected:	02.02.19 09.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.05.19 20.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.05.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.05.19 20.43	
1,4-Difluorobenzene	540-36-3	90	%	70-130	02.05.19 20.43	

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Sample Id:	**BH04**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-007	Date Collected:	02.02.19 09.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**402**	4.96	mg/kg	02.05.19 22.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.06.19 01.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.06.19 01.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.06.19 01.51	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.06.19 01.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.06.19 01.51	
o-Terphenyl	84-15-1	91	%	70-135	02.06.19 01.51	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-007	Date Collected:	02.02.19 09.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.05.19 21.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.05.19 21.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.05.19 21.04	
4-Bromofluorobenzene	460-00-4	91	%	70-130	02.05.19 21.04	

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Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-008	Date Collected:	02.02.19 10.05	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**189**	4.96	mg/kg	02.05.19 22.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 02.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 02.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 02.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.06.19 02.11	
o-Terphenyl	84-15-1	88	%	70-135	02.06.19 02.11	

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Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-008	Date Collected:	02.02.19 10.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.05.19 21.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.05.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	02.05.19 21.26	
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.05.19 21.26	

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Sample Id:	**BH05**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-009	Date Collected:	02.02.19 10.15	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1460**	4.98	mg/kg	02.05.19 22.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 02.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 02.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 02.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 02.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.06.19 02.30	
o-Terphenyl	84-15-1	94	%	70-135	02.06.19 02.30	

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Sample Id:	**BH05**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-009	Date Collected:	02.02.19 10.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.05.19 21.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.05.19 21.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.05.19 21.47	U	1
m,p-Xylenes	179601-23-1	**0.00405**	0.00398	mg/kg	02.05.19 21.47		1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.05.19 21.47	U	1
Total Xylenes	1330-20-7	**0.00405**	0.00199	mg/kg	02.05.19 21.47		1
Total BTEX		**0.00405**	0.00199	mg/kg	02.05.19 21.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.05.19 21.47	
4-Bromofluorobenzene	460-00-4	87	%	70-130	02.05.19 21.47	

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Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-010	Date Collected:	02.02.19 10.25	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**289**	5.00	mg/kg	02.05.19 23.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 02.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 02.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 02.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 02.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.06.19 02.50	
o-Terphenyl	84-15-1	98	%	70-135	02.06.19 02.50	

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Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-010	Date Collected:	02.02.19 10.25	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.05.19 22.09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.05.19 22.09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.05.19 22.09	U	1
m,p-Xylenes	179601-23-1	**0.00410**	0.00402	mg/kg	02.05.19 22.09		1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.05.19 22.09	U	1
Total Xylenes	1330-20-7	**0.00410**	0.00201	mg/kg	02.05.19 22.09		1
Total BTEX		**0.00410**	0.00201	mg/kg	02.05.19 22.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	02.05.19 22.09	
1,4-Difluorobenzene	540-36-3	94	%	70-130	02.05.19 22.09	

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Sample Id:	**SS4A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-011	Date Collected:	02.02.19 11.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	02.05.19 23.06	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 03.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 03.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 03.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 03.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.06.19 03.49	
o-Terphenyl	84-15-1	98	%	70-135	02.06.19 03.49	

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Sample Id:	**SS4A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-011	Date Collected:	02.02.19 11.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.05.19 23.34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.05.19 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	02.05.19 23.34	
4-Bromofluorobenzene	460-00-4	90	%	70-130	02.05.19 23.34	

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Sample Id:	**SS5A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-012	Date Collected:	02.02.19 11.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**260**	4.96	mg/kg	02.05.19 23.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 04.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 04.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 04.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 04.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.06.19 04.08	
o-Terphenyl	84-15-1	90	%	70-135	02.06.19 04.08	

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Sample Id:	**SS5A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-012	Date Collected:	02.02.19 11.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.05.19 23.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.05.19 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.05.19 23.55	
1,4-Difluorobenzene	540-36-3	88	%	70-130	02.05.19 23.55	

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Sample Id:	**BH06**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-013	Date Collected:	02.02.19 12.35	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**811**	4.97	mg/kg	02.05.19 23.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 04.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 04.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 04.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 04.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.06.19 04.28	
o-Terphenyl	84-15-1	97	%	70-135	02.06.19 04.28	

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Sample Id:	**BH06**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-013	Date Collected:	02.02.19 12.35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.06.19 00.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.19 00.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	02.06.19 00.16	
4-Bromofluorobenzene	460-00-4	92	%	70-130	02.06.19 00.16	

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Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-014	Date Collected:	02.02.19 12.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**459**	5.01	mg/kg	02.05.19 23.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 04.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 04.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 04.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 04.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.06.19 04.47	
o-Terphenyl	84-15-1	91	%	70-135	02.06.19 04.47	

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Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-014	Date Collected:	02.02.19 12.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.06.19 00.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.19 00.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	02.06.19 00.37	
4-Bromofluorobenzene	460-00-4	86	%	70-130	02.06.19 00.37	

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Sample Id:	**BH07**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-015	Date Collected:	02.02.19 13.20	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	02.05.19 23.59	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.06.19 05.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.06.19 05.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.06.19 05.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.06.19 05.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.06.19 05.07	
o-Terphenyl	84-15-1	99	%	70-135	02.06.19 05.07	

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LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-015	Date Collected:	02.02.19 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.19 00.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.19 00.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.19 00.58	U	1
m,p-Xylenes	179601-23-1	**0.00527**	0.00399	mg/kg	02.06.19 00.58		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.19 00.58	U	1
Total Xylenes	1330-20-7	**0.00527**	0.00200	mg/kg	02.06.19 00.58		1
Total BTEX		**0.00527**	0.00200	mg/kg	02.06.19 00.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	02.06.19 00.58	
4-Bromofluorobenzene	460-00-4	85	%	70-130	02.06.19 00.58	

Certificate of Analytical Results 613477

LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-016	Date Collected:	02.02.19 13.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.05.19 13.00	Basis:	Wet Weight
Seq Number:	3078192				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.8**	4.98	mg/kg	02.06.19 00.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.05.19 17.00	Basis:	Wet Weight
Seq Number:	3078223				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.06.19 05.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.06.19 05.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.06.19 05.27	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.06.19 05.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.06.19 05.27	
o-Terphenyl	84-15-1	100	%	70-135	02.06.19 05.27	

Certificate of Analytical Results 613477

LT Environmental, Inc., Arvada, CO

JRU 55

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	02.05.19 12.39
Lab Sample Id:	613477-016	Date Collected:	02.02.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.05.19 14.30	Basis:	Wet Weight
Seq Number:	3078196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.06.19 01.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.06.19 01.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	02.06.19 01.19	
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.06.19 01.19	

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

QC Summary 613477

LT Environmental, Inc.

JRU 55

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3078192 Matrix: Solid Date Prep: 02.05.19
MB Sample Id: 7671127-1-BLK LCS Sample Id: 7671127-1-BKS LCSD Sample Id: 7671127-1-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	250	100	239	96	90-110	4	20	mg/kg	02.05.19 21:24	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3078192 Matrix: Soil Date Prep: 02.05.19
Parent Sample Id: 613477-001 MS Sample Id: 613477-001 S MSD Sample Id: 613477-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.852	248	240	97	249	100	90-110	4	20	mg/kg	02.05.19 21:43	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3078192 Matrix: Soil Date Prep: 02.05.19
Parent Sample Id: 613477-011 MS Sample Id: 613477-011 S MSD Sample Id: 613477-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.26	250	230	91	239	95	90-110	4	20	mg/kg	02.05.19 23:13	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3078223 Matrix: Solid Date Prep: 02.05.19
MB Sample Id: 7671161-1-BLK LCS Sample Id: 7671161-1-BKS LCSD Sample Id: 7671161-1-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	895	90	908	91	70-135	1	20	mg/kg	02.05.19 22:36	
Diesel Range Organics (DRO)	<8.13	1000	1010	101	1020	102	70-135	1	20	mg/kg	02.05.19 22:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		125		126		70-135	%	02.05.19 22:36
o-Terphenyl	95		105		127		70-135	%	02.05.19 22:36

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 613477

LT Environmental, Inc.

JRU 55

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3078223 | Matrix: Soil | Date Prep: 02.05.19
Parent Sample Id: 613477-001 | MS Sample Id: 613477-001 S | MSD Sample Id: 613477-001 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)	<7.99	998	813	81	789	79	70-135	3	20	mg/kg	02.05.19 23:34	
Diesel Range Organics (DRO)	<8.11	998	907	91	879	88	70-135	3	20	mg/kg	02.05.19 23:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		116		70-135	%	02.05.19 23:34
o-Terphenyl	111		104		70-135	%	02.05.19 23:34

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3078196 | Matrix: Solid | Date Prep: 02.05.19
MB Sample Id: 7671157-1-BLK | LCS Sample Id: 7671157-1-BKS | LCSD Sample Id: 7671157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.111	110	0.118	118	70-130	6	35	mg/kg	02.05.19 16:45	
Toluene	<0.00201	0.101	0.0873	86	0.0950	95	70-130	8	35	mg/kg	02.05.19 16:45	
Ethylbenzene	<0.00201	0.101	0.106	105	0.106	106	70-130	0	35	mg/kg	02.05.19 16:45	
m,p-Xylenes	<0.00402	0.201	0.228	113	0.221	111	70-130	3	35	mg/kg	02.05.19 16:45	
o-Xylene	<0.00201	0.101	0.102	101	0.0997	100	70-130	2	35	mg/kg	02.05.19 16:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		88		99		70-130	%	02.05.19 16:45
4-Bromofluorobenzene	86		103		87		70-130	%	02.05.19 16:45

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3078196 | Matrix: Soil | Date Prep: 02.05.19
Parent Sample Id: 613477-001 | MS Sample Id: 613477-001 S | MSD Sample Id: 613477-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0737	74	0.0791	78	70-130	7	35	mg/kg	02.05.19 17:28	
Toluene	<0.00200	0.100	0.0626	63	0.0645	64	70-130	3	35	mg/kg	02.05.19 17:28	X
Ethylbenzene	<0.00200	0.100	0.0749	75	0.0820	81	70-130	9	35	mg/kg	02.05.19 17:28	
m,p-Xylenes	0.00169	0.200	0.141	70	0.159	78	70-130	12	35	mg/kg	02.05.19 17:28	
o-Xylene	<0.00200	0.100	0.0676	68	0.0734	73	70-130	8	35	mg/kg	02.05.19 17:28	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		109		70-130	%	02.05.19 17:28
4-Bromofluorobenzene	102		100		70-130	%	02.05.19 17:28

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: 613477

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
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:	Carlsbad NM 88220
Phone:	432.704.5178 Email:		abaker@ltenv.com

Work Order Comments

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

Project Name:	JRU 55	Turn Around	
Project Number:	01291802 7 2RP 3863	Routine ☐	
P.O. Number:		Rush: /	
Sampler's Name:	L. Laumbach, G. Green	Due Date: 2/6	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3/0.2	Thermometer ID:	IR6
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH01	S	02/02/19	7:55	1'	1	X	X	X
BH01A	S		8:10	4'	1	X	X	X
BH02	S		8:25	2'	1	X	X	X
BH02A	S		8:55	4'	1	X	X	X
BH03	S		9:15	3'	1	X	X	X
BH03A	S		9:20	4'	1	X	X	X
BH04	S		9:50	3'	1	X	X	X
BH04A	S		10:05	4'	1	X	X	X
BH05	S		10:15	2'	1	X	X	X
BH05A	S		10:25	4'	1	X	X	X

Work Order Notes

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

Sample Comments

deviate

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		02/04/19 7:00	2		2/4/19 1050
3		2/5/19 1239	4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 613477

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
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:	Carlsbad, NM 88220
Phone:	432.704.5178	Email:	Abaker@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ ST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU 55	Turn Around	
Project Number:	012918027 2RP3863	Routine	☐
P.O. Number:		Rush:	1
Sampler's Name:	L. Lambert, G. Green	Due Date:	02/06

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3 | 0.2	Thermometer ID	IR
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS4A	S	02/02/19	11:45	4'	1	X	X	X
SS5A	S		11:45	4'	1	X	X	X
BH06	S		12:35	3'	1	X	X	X
BH06A	S		12:45	4'	1	X	X	X
BH07	S		13:20	1'	1	X	X	X
BH07A	S		13:50	4'	1	X	X	X
	S							
	S							
	S							
	S							

Work Order Notes

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

Sample Comments

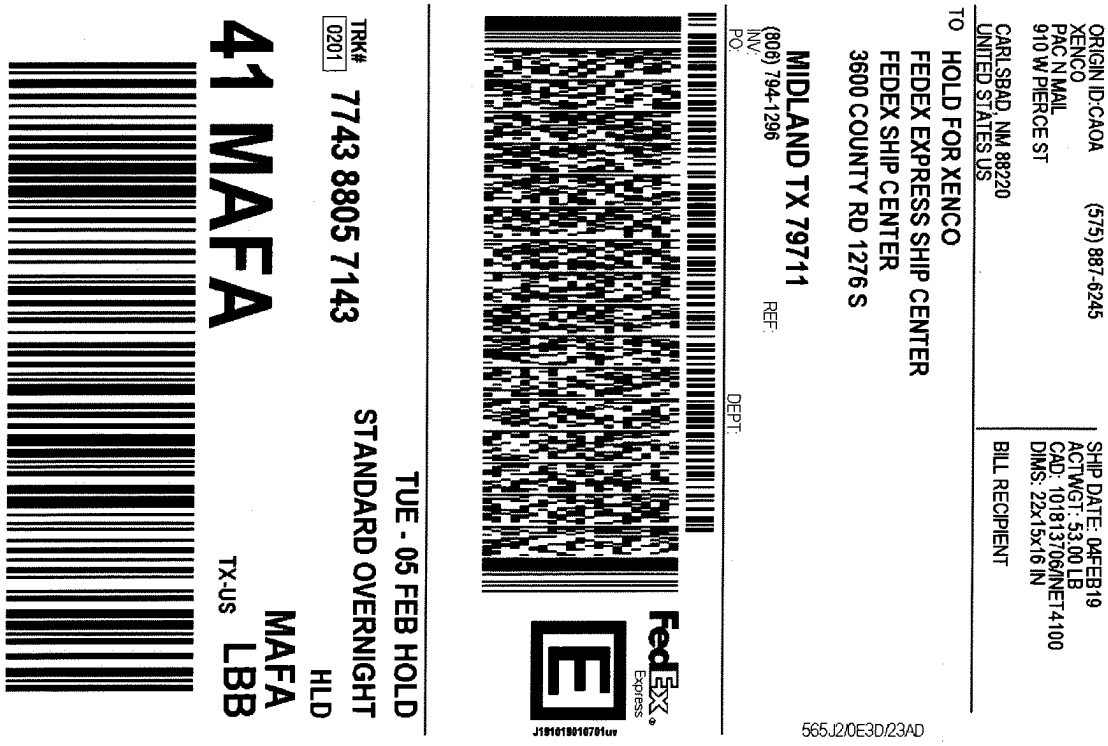
LL diesel
GG

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		02/04/19 7:00	2		02/04/19 @ 1050
3		2/5/19 1739	4		
5			6		

Revised Date 051418 Rev. 2018.1



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.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.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/05/2019 12:39:00 PM

Work Order #: 613477

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)?	.2
#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)?	**N/A**
#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: Brianna Teel Date: 02/05/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/05/2019

Jessica Kramer

ATTACHMENT 3: PHOTOGRAPHIC LOG

View south of processing equipment.

Project: 012918027	XTO Energy, Inc. JRU 55 Battery	LTE Advancing Opportunity
February 2, 2018	Photographic Log	

Fenced excavation near processing equipment.

Project: 012918027	XTO Energy, Inc. JRU 55 Battery	LTE Advancing Opportunity
June 20, 2018	Photographic Log	

ATTACHMENT 4: SOIL SAMPLE LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: ~~12~~ SS12 BH01	Date: 2/2/2019
Project Name: JRU-55	RP Number: 2RP-3863
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: LL / Method: Hand Auger
Lat/Long:	Field Screening: PID, chloride (Hach) / Hole Diameter: 3" / Total Depth: 4'
Comments:	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
	<162	8.9		~~SS12~~ BH01	1	1'		8:55 Sandy silty fines, dry brown Nodules
	<162	7.0			2	2'		9:00 Silty sand fines dry (5) brown Nodules
	<162	13			3	3'		9:05 light brown clay chunks, packed with Nodules 50/50
	<162	5.2		~~SS14~~ BH01A	4	4'		9:10 light brown Nodules silty sand dry nodules 50/50
					5			
					6			
					7			
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					9			
					10			
					11			
					12			

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Identifier:	Date:
~~SS13~~ BH02	2/2/2019
Project Name: JRU-55	**RP Number:** 2RP3863
LITHOLOGIC / SOIL SAMPLING LOG	**Logged By:** GG / **Method:** Hand Auger
Lat/Long: / **Field Screening:** PID/chlorides	**Hole Diameter:** 3" / **Total Depth:** 4

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	~~0~~				~~SS13~~	0			
0815	D	0.4	0.8	N	~~SS13~~	1			no odor silty clay
0825 ★	D	0.8	0.0		~~SS13~~ BH02	2			no odor silty clay
0840	M	0.4	0.0		~~SS13~~	3			no odor sandy clay
855 ★	M	1.0	0.0		~~SS13~~ BH02A	4			no odor sandy clay
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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Identifier: ~~SS11~~ BH03	Date: 2/2/2019
Project Name: JRU-55	RP Number: 2RP-3823
Logged By: LL	Method: Hand Auger
Lat/Long:	Field Screening: PID chlorides (Hach)
Hole Diameter: 3"	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	~	~	~		0			~
9:05 D	<112	11.3	N		1	1'		Sandy loam, silts, dry, brown 70/30
9:10 D	2.1 168	18.4	N		2	2'		clumps slightly, low plasticity, brown Sandy loam, 60/40
9:15 M	2.6 292	13.0	N	BH03	3	3'		well formed ribbon red brown clay (80) 20
9:26 M	2.6 292	10.3	N	BH03A	4	4'		20/80 clay poor plasticity, clumps easily red brown
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
~~SS10~~ BH04	2/2/2019
Project Name: JRU-55	**RP Number:** 2RP-3863
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: Hand Auger
Lat/Long:	Field Screening: PID / Chloride / Hole Diameter: 3" / Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	<180 ~~0.8~~				0			
0915 D		0.0	N	SS10	1			Sandy loam, dry, low plasticity
0930 m	<180	0.0		SS10A	2			sandy loam moist, low plasticity
0950 m	568	0.0		SS10B	3			Sandy loam moist, low plasticity
1005 m	313	0.0		SS10C	4			Sandy loam moist, low plasticity
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
~~SS#~~ BH05	2/2/2019
Project Name: JRU-55	**RP Number:** 2RP-3863
Logged By: LL	**Method:** Hand Auger
Hole Diameter: 3"	**Total Depth:** 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID & Chlorides

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
	1.0							
10:10	112	11.9	N		1	1'		Silty gravel, fine sand,
	4.8			★				40/60
10:15	80	22.0	N	BH05	2	2'		partial ribbon, clumps, sticky when packed red brown
	4.6							30/30
10:20	740	20.2	N		3	3'		partial ribbon, poor plasticity, clumps - easily broken
	2.6			★				sand
10:25	292	12.5	N	BH05A	4	4'		70/30 - poor plasticity, no ribbon, clumps easily broken red brown, No odor, Sandy
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
~~SS01~~ BH06	2/2/2019
Project Name: JRU-55	**RP Number:** 2RP-3863
LITHOLOGIC / SOIL SAMPLING LOG	**Logged By:** GG / **Method:** Hand Auger
Lat/Long: / **Field Screening:** PID/Chloride	**Hole Diameter:** 3" / **Total Depth:** 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1205 D	224	1.0		~~SS01~~	0–1			silty loam, low plasticity,
1220 M	1280	4.6		~~SS02~~	1–2			clay loam, med plasticity
1235 D	1376	9.3		~~SS03~~ BH06	2–3			low plasticity, clay loam
1245 D	588	4.0		~~SS04~~ BH06A	3–4			silty loam, low plasticity/l

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Identifier: BH07 07	Date: 2/2/2019	
Project Name: JRU-55	RP Number: 2RP 3863	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: LL	Method: Hand Auger
Lat/Long:	Field Screening: PID, chloride (Hach	Hole Diameter: 3" / Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
13:20 D		185	N	BH0	1			brown sand N odor
13:30 M		12.8	N		2			brown/red, low plasticity, sticky
13:40 M		128	N		3			brown/tan, N odor low plasticity, sticky
13:50 D		130	N	BH0	4			light tan sand N odor
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier: SS-4	Date: 2/2/2019
Project Name: JRU-55	RP Number: 2RP-3863
Logged By: LL	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID, chlorides (Hach)

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						0			
11:20	D	<112	14.8	N		1	1'		brown Sand, Nodor, gritty
11:30	D	<112	10.3	N		2	2'		red brown, hard pack, flimsy Nodor, sticky
11:40	D	<112	18.5	N		3	3'		light tan/brown Sand, course, Nodor 90/10
11:45	D	<112	23.1	N	SS4A	4	4'		light tan Sand, course, Nodor 90/10
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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Identifier:	Date:
SS05	2/2/2019
Project Name: JRU-55	**RP Number:** 2RP-3863
Logged By: GG	**Method:** Hand Auger
Hole Diameter: 3"	**Total Depth:** 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID/chloride

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	<180	0.0		~~SS05~~	1			sandy loam, low plasticity, Dry
m	416	0.2		~~SS05~~	2			clay loam, med plasticity, moist
D	588	2.7		~~SS05~~	3			clay/sandy, low plasticity Dry
1145 D	364	0.9		~~SS05~~ SS05A	4			silty loam, low plasticity, dry
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

CONDITIONS

Action 194022

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 194022
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	3/7/2023