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

April 2, 2019

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

RE: Closure Request
James Ranch Unit #3 Battery
Remediation Permit Number 2RP-4991
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following letter report detailing the excavation of impacted soil and confirmation soil sampling activities at the James Ranch Unit #3 Battery (JRU) #3 Battery (API 30-015-20232) (Site) in Unit Letter J, Section 1, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The original C-141 form reported the Unit Letter as G; however, the latitude and longitude of the release plot in Unit J. The purpose of the soil sampling and excavation activities was to address impacts to soil after a release of produced water occurred within the bermed area of the well pad.

On September 18, 2018, a corroded 2-inch ball valve on the produced water tank drain line failed. Produced water was released into the earthen containment. The leak caused a release of approximately 60 barrels (bbls) of produced water inside the earthen containment around the process equipment and storage tanks. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on October 1, 2018 and was assigned Remediation Permit (RP) Number 2RP-4991 (Attachment 1).

BACKGROUND

The release occurred after August 14, 2018; therefore, LTE applied Table 1: The Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be 119 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is C 02492, located approximately 1.17 miles east-southeast of the Site. Ground surface elevation at the well location is 3,299 feet, which is 6 feet higher in elevation than the Site. The water well has a depth to groundwater of 125 feet and a total depth of 400 feet. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 2,720 feet south-southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than

1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a high karst area. 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); 100 mg/kg total petroleum hydrocarbons (TPH); and 600 mg/kg chloride.

SOIL SAMPLING

On September 28, 2018, an LTE scientist collected two preliminary soil samples (SS01 and SS02) to assess the lateral extent of impacted soil inside the berm. The soil sample locations were selected based on information provided on the initial Form C-141 and field observations. 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. Locations of the soil samples are depicted on Figure 2.

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-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by EPA Method 8015 Modified, and chloride by EPA Method 300.0.

Laboratory analytical results for the preliminary soil samples indicated both soil samples (SS01 and SS02) exceeded the NMOCD site-specific remediation action level for BTEX, TPH, and chloride. The laboratory analytical results are depicted on Figure 2 and summarized in Table 1.

EXCAVATION ACTIVITIES

On October 15, 2018, LTE personnel returned to the Site to oversee excavation of impacted soil as indicated by visual staining, field screening, and laboratory analytical results exceeding the NMOCD remediation action levels for BTEX, TPH, and chloride in the initial soil samples SS01 and SS02. To delineate hydrocarbon and potential chloride impacts to soil and direct excavation activities, LTE screened soil samples using a PID and Hach® chloride QuanTab® test strips. The excavation was completed to depths ranging from 4 feet bgs to 8 feet bgs, with the western (FS03) and the northeastern (FS06) excavation areas being the deepest.

Not including the area around the tanks, the excavation measured approximately 4,000 square feet with depths between 4 and 8 feet. Approximately 632 cubic yards of impacted soil were removed from the excavation and transported and properly disposed of at the Lea Land Landfill and the R360 Landfill located in Eunice, New Mexico, and Hobbs, New Mexico. An estimated 200

cubic yards of impacted soil remained in place to a maximum depth 8 feet based on sample results from FS03 and FS06 that are compliant with NMOCD remediation action levels at 8 feet.

Upon completion of excavation activities, LTE collected confirmation soil samples FS01 through FS11, SW01 through SW10, SW12, SW13, and SW20, from the final lateral and vertical extents of the excavation. The final excavation extent and soil sample locations are illustrated on Figure 2. The confirmation soil samples were collected and handled as previously described and submitted to Xenco Laboratories in Midland, Texas.

ANALYTICAL RESULTS

Laboratory analytical results indicated preliminary soil samples SS01 and SS02 exceeded the NMOCD remediation action levels for BTEX, TPH, and chloride. As much as possible, impacted soil was excavated from the release area (bermed area). However, LTE did not excavate soil within 2 feet of the tanks inside the bermed area, per XTO's safety policy.

Additionally, laboratory analytical results indicated that sidewall soil samples SW11 and SW14 through SW19, exceeded the NMOCD remediation action level for TPH and chloride. Laboratory analytical results indicated that floor soil sample FS01, FS02, FS05, and FS11 exceeded the NMOCD remediation action levels for TPH and/or chloride.

Additional soil was removed outside the bermed area represented by soil samples SW11, SW14, SW15, and SW16 and NMOCD-compliant samples around the excavation perimeter, confirmed removal of impacted soil in these locations.

Impacted soil within the berm, as represented by soil samples SS01, SS02, SW17, SW18, and SW19 remained in-place per XTO's safety policy, which restricts soil disturbing activities within a 2-foot radius of any onsite storage tanks or process equipment and ten feet from the wellhead (blue outline in Figure 2). This safety policy is established to protect workers and to reduce the likelihood of compromising the foundation of the process equipment and storage tanks. This policy had to be enforced around the tank battery since the release was contained within the bermed area between the berm and the tanks. The excavation was advanced to within two feet of the tanks and process equipment by mechanical and hand digging methods to remove as much impacted soil as possible. Twenty-four confirmation soil samples around the release area outside the berm were compliant with the NMOCD remediation action levels for BTEX, TPH, and chloride (Figure 2).

CONCLUSIONS

Laboratory analytical results for twenty-four final confirmation surface soil samples indicate that BTEX, TPH, and chloride concentrations are compliant with NMOCD site-specific remediation action levels outside the bermed release area. Impacted soil was left in-place within the bermed

area, 2 feet from the tanks per XTO's safety policy as described above. Based on XTO removing 632 cubic yards of impacted soil within the berm, only an estimated 200 cubic yards of impacted soil remaining in place, assuming an 8-foot depth. LTE removed impacted soil as much as possible during excavation activities as confirmed by the sidewall (SW) and floor (FS) samples collected outside of the release area (Figure 2).

Since sampling locations within the berm contain TPH and/or chloride concentrations exceeding the NMOCD Table 1 closure criteria, XTO requests deferral of final site remediation until major construction or final reclamation occur, whichever is first. An updated NMOCD Form C-141 for each release is included in Attachment 1.

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
Maria Pruett, NMOCD
Ryan Mann, State Land Office

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-4991)
Attachment 2	Laboratory Analytical Reports
Attachment 3	Photo Log

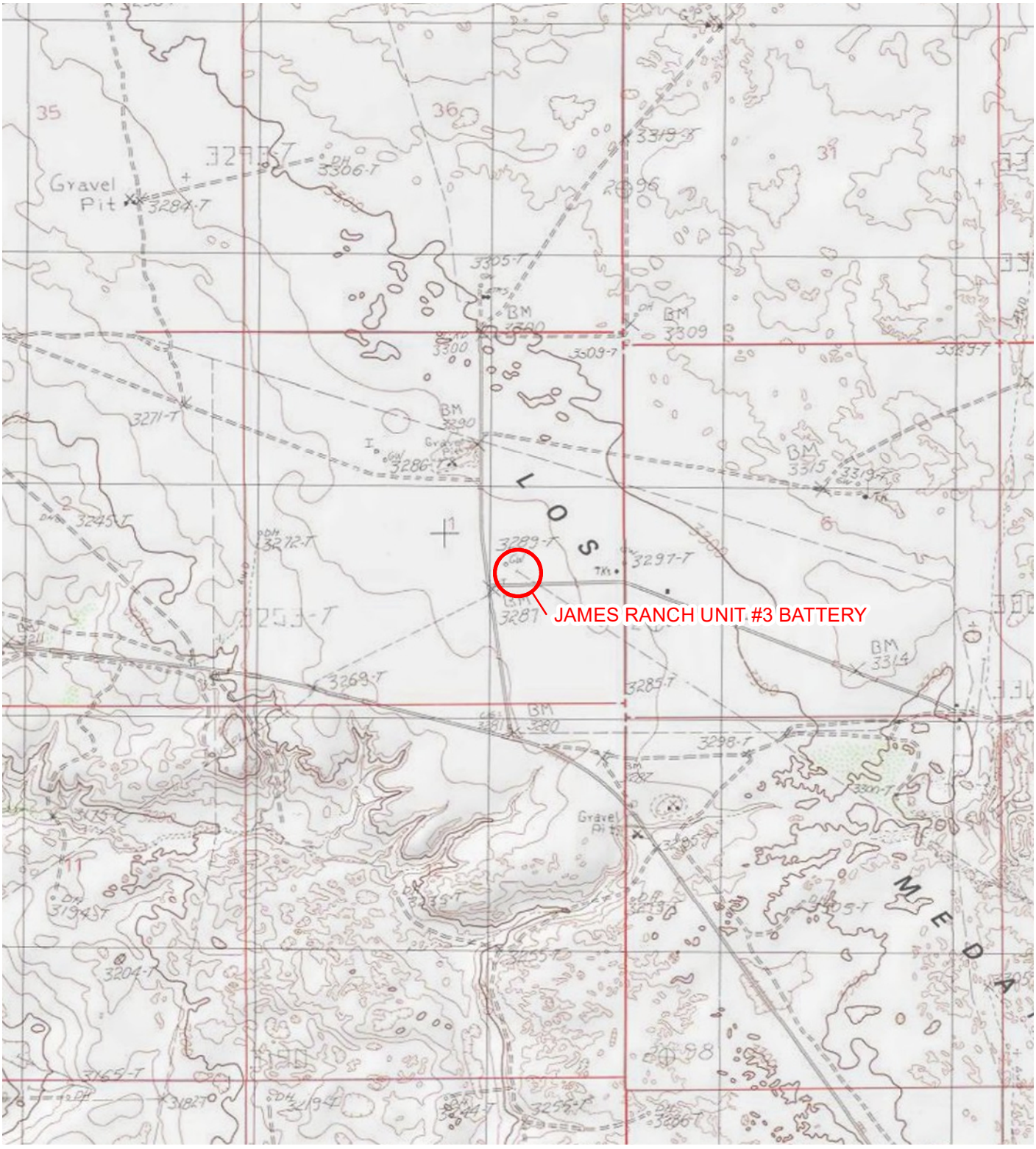


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

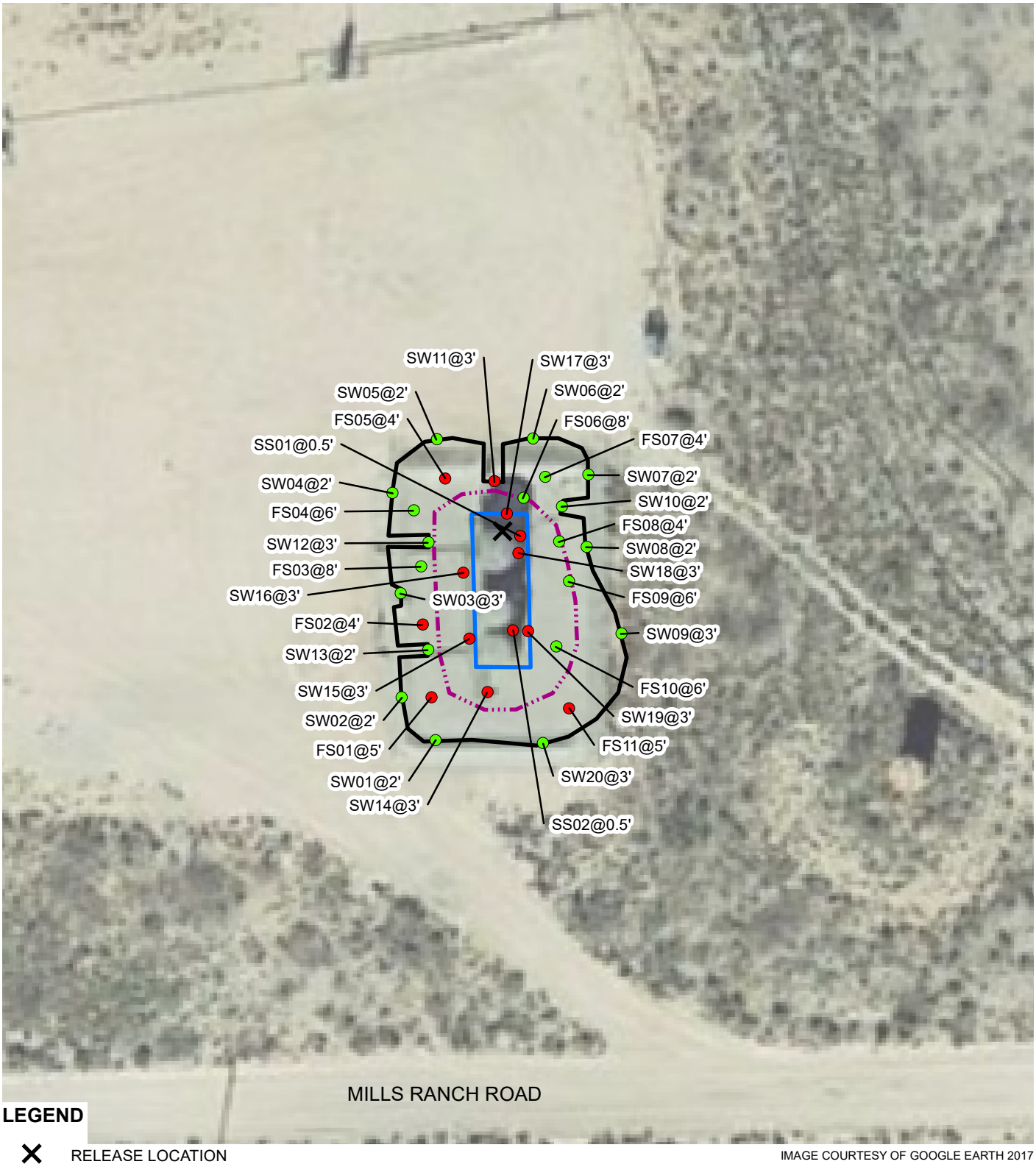
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-4991

FIGURE 1
SITE LOCATION MAP
JAMES RANCH UNIT #3 BATTERY
UNIT J SEC 1 T23S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918151_JAMES RANCH UNIT #3 BATTERY_4991\012918151_FIG01_SL_2018_4991.mxd



LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE
- FINAL CONFIRMATION SOIL SAMPLE
- EXCAVATION EXTENT
- RELEASE EXTENT
- TANK BATTERY (NOT INCLUDED IN EXCAVATION AREA CALCULATION)

NOTE: REMEDIATION PERMIT NUMBER 2RP-4991

IMAGE COURTESY OF GOOGLE EARTH 2017

0 40 80
Feet

N

FIGURE 2
SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT #3 BATTERY
UNIT J SEC 1 T23S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918151_JAMES RANCH UNIT #3 BATTERY_4991\012918151_FIG02_SITE_2018_4991_NO DATA.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #3 BATTERY
REMEDIATION PERMIT NUMBER 2RP-4991
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)
SS01	0.5	09/28/2018	<0.998	96.4	65.2	199	**361**	14,000	8,160	142	22,160	**22,300**	**2,560**
SS02	0.5	09/28/2018	1.76	40.7	27.6	236	**306**	6,110	2,290	<74.9	8,400	**8,400**	**727**
FS01	5	10/15/2018	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<15.0	27.2	<15.0	27.2	27.2	**801**
FS02	4	10/15/2018	<0.0199	<0.0199	0.349	0.102	0.451	22.8	259	<15.0	282	**282**	341
FS05	4	10/15/2018	<0.0196	<0.0196	0.0372	0.110	0.147	<15.0	214	<15.0	214	**214**	357
FS07	4	10/15/2018	<0.0197	<0.0197	<0.0197	<0.0197	<0.0197	<15.0	17.8	<15.0	17.8	17.8	63.0
SW01	2	10/15/2018	<0.0197	<0.0197	<0.0197	<0.0197	<0.0197	<15.0	36.2	<15.0	36.2	36.2	68.7
SW02	2	10/15/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<15.0	53.5	<15.0	53.5	53.5	373
SW04	2	10/15/2018	<0.0189	<0.0189	<0.0189	<0.0189	<0.0189	<15.0	52.6	<15.0	52.6	52.6	102
SW05	2	10/15/2018	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<14.9	<14.9	<14.9	<14.9	<14.9	46.9
SW06	2	10/15/2018	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<15.0	<15.0	<15.0	<15.0	<15.0	421
SW07	2	10/15/2018	<0.0172	<0.0172	<0.0172	<0.0172	<0.0172	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
FS03	8	10/16/2018	<0.0199	<0.0199	<0.0199	<0.0199	<0.0199	<15.0	31.3	<15.0	31.3	31.3	314
FS04	6	10/16/2018	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<15.0	55.5	<15.0	55.5	55.5	567
FS06	8	10/16/2018	<0.0174	<0.0174	<0.0174	<0.0174	<0.0174	<15.0	37.1	<15.0	37.1	37.1	487
SW03	3	10/16/2018	<0.0182	<0.0182	<0.0182	<0.0182	<0.0182	<15.0	40.2	<15.0	40.2	40.2	152
FS08	4	10/17/2018	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<15.0	44.5	<15.0	44.5	44.5	380
SW08	2	10/17/2018	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
SW10	2	10/17/2018	<0.0183	<0.0183	<0.0183	<0.0183	<0.0183	<15.0	<15.0	<15.0	<15.0	<15.0	68.6
SW11	3	10/17/2018	<0.0175	0.230	<0.0175	17.9	18.1	678	1,010	<15.0	1,690	**1,690**	**821**
SW12	3	10/17/2018	<0.0195	0.0312	<0.0195	0.199	0.230	<15.0	97.4	<15.0	97.4	97.4	265
SW13	2	10/17/2018	<0.0178	<0.0178	<0.0178	<0.0178	<0.0178	<14.9	96.4	<14.9	96.4	96.4	297
SW14	3	10/17/2018	<0.0199	<0.0199	<0.0199	3.29	3.29	294	2,320	<15.0	2,610	**2,610**	**709**
SW15	3	10/17/2018	<0.0176	<0.0176	<0.0176	8.23	8.23	1,060	2,390	<14.9	3,450	**3,450**	**937**
SW16	3	10/17/2018	<0.0197	<0.0197	<0.0197	14.9	14.9	1,340	3,440	<15.0	4,780	**4,780**	**1,080**
SW17	3	10/17/2018	0.0366	<0.0193	<0.0193	12.6	12.7	1,370	2,850	<15.0	4,220	**4,220**	**1,170**
SW18	3	10/17/2018	<0.0199	<0.0199	0.129	0.163	0.292	261	1,740	<15.0	2,000	**2,000**	**1,120**

TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT #3 BATTERY
REMEDIATION PERMIT NUMBER 2RP-4991
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)
SW19	3	10/17/2018	<0.0196	0.0472	<0.0196	0.173	0.220	168	941	<15.0	1,110	**1,110**	**908**
FS09	6	10/18/2018	<0.0191	<0.0191	<0.0191	<0.0191	<0.0191	<15.0	<15.0	<15.0	<15.0	<15.0	259
FS10	6	10/18/2018	<0.0188	<0.0188	<0.0188	<0.0188	<0.0188	<15.0	41.4	<15.0	41.4	41.4	464
FS11	5	10/18/2018	<0.0195	<0.0195	<0.0195	<0.0195	<0.0195	<15.0	90.0	<15.0	90.0	90.0	**1,090**
SW09	3	10/18/2018	<0.0187	<0.0187	<0.0187	<0.0187	<0.0187	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
SW20	3	10/18/2018	<0.0173	<0.0173	<0.0173	<0.0173	<0.0173	<15.0	<15.0	<15.0	<15.0	<15.0	<25.0
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	NE	100	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard.

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-4991)

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	NMAP1827469186
District RP	2RP-4991
Facility ID	N/A
Application ID	pMAP1827468957

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NMAP1827469186
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.331885 Longitude -103.83046
(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit #3 Battery	Site Type Production Bulk Storage Facility
Date Release Discovered 9/18/2018	API# *(if applicable)* 30-015-20232

Unit Letter	Section	Township	Range	County
G	1	23S	30E	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 60	Volume Recovered (bbls) 0
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A 2 inch ball valve on the produced wdater tank drain lined failed due to corrosion. Produced water was released to earthen containment. An environmental contractor has been retained to assist with remediation efforts.

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1827469186
District RP	2 RP-4991
Facility ID	N/A
Application ID	pMAP1827468957

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? An unauthorized release of a volume of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided to Maria Pruett/Mike Bratcher (NMOCD) and Shelly Tucker/Jim Amos (BLM), by email on 9/18/2018

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: [signature] Date: 10-1-18

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

OCD Only

Received by: [signature] Date: 10/01/18

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1827469186
District RP	2RP-4991
Facility ID	N/A
Application ID	pMAP1827468957

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	NMAP1827469186
District RP	2RP-4991
Facility ID	N/A
Application ID	pMAP1827468957

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: April 2, 2019

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1827469186
District RP	2RP-4991
Facility ID	N/A
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Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: EH&S Coordinator

Signature: Date: April 2, 2019

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

OCD Only

Received by: Date:

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Date:

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 600983

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

09-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), 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 (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
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)

09-OCT-18

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

Reference: XENCO Report No(s): **600983**
JRU #3 Battery
Project Address: Carlsbad. 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) 600983. 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. 600983 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

Sample Cross Reference 600983

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09-28-18 14:20	6 In	600983-001
SS02	S	09-28-18 14:25	6 In	600983-002

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3065182 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 600983-001.

Batch: LBA-3065828 BTEX by EPA 8021B
Surrogate 1,4-Difluorobenzene, Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 600983-001.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 600983

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad. NM

Date Received in Lab: Tue Oct-02-18 10:17 am
Report Date: 09-OCT-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	600983-001		600983-002					
	Field Id:	SS01		SS02					
	Depth:	6- In		6- In					
	Matrix:	SOIL		SOIL					
	Sampled:	Sep-28-18 14:20		Sep-28-18 14:25					
BTEX by EPA 8021B	***Extracted:***	Oct-08-18 08:30		Oct-08-18 08:30					
	Analyzed:	Oct-08-18 15:26		Oct-08-18 15:06					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.998	0.998	1.76	0.497				
Toluene		96.4	0.998	40.7	0.497				
Ethylbenzene		65.2	0.998	27.6	0.497				
m,p-Xylenes		72.2 D	20.0	197	0.994				
o-Xylene		127	0.998	39.2	0.497				
Total Xylenes		199	0.998	236	0.497				
Total BTEX		361	0.998	306	0.497				
Inorganic Anions by EPA 300	***Extracted:***	Oct-03-18 17:00		Oct-03-18 17:00					
	Analyzed:	Oct-03-18 21:50		Oct-03-18 21:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		2560	49.5	727	5.00				
TPH by SW8015 Mod	***Extracted:***	Oct-02-18 17:00		Oct-02-18 17:00					
	Analyzed:	Oct-03-18 08:57		Oct-03-18 09:15					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		14000	74.9	6110	74.9				
Diesel Range Organics (DRO)		8160	74.9	2290	74.9				
Motor Oil Range Hydrocarbons (MRO)		142	74.9	<74.9	74.9				
Total TPH		22300	74.9	8400	74.9				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 600983

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.02.18 10.17
Lab Sample Id:	600983-001	Date Collected:	09.28.18 14.20	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 17.00	Basis:	Wet Weight
Seq Number:	3065351				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2560**	49.5	mg/kg	10.03.18 21.50		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**14000**	74.9	mg/kg	10.03.18 08.57		5
Diesel Range Organics (DRO)	C10C28DRO	**8160**	74.9	mg/kg	10.03.18 08.57		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**142**	74.9	mg/kg	10.03.18 08.57		5
Total TPH	PHC635	**22300**	74.9	mg/kg	10.03.18 08.57		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.03.18 08.57	
o-Terphenyl	84-15-1	156	%	70-135	10.03.18 08.57	**

Certificate of Analytical Results 600983

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.02.18 10.17
Lab Sample Id:	600983-001	Date Collected:	09.28.18 14.20	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.08.18 08.30	Basis:	Wet Weight
Seq Number:	3065828				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.998	0.998	mg/kg	10.08.18 15.26	U	500
Toluene	108-88-3	**96.4**	0.998	mg/kg	10.08.18 15.26		500
Ethylbenzene	100-41-4	**65.2**	0.998	mg/kg	10.08.18 15.26		500
m,p-Xylenes	179601-23-1	**72.2**	20.0	mg/kg	10.08.18 19.46	D	5000
o-Xylene	95-47-6	**127**	0.998	mg/kg	10.08.18 15.26		500
Total Xylenes	1330-20-7	**199**	0.998	mg/kg	10.08.18 19.46		5000
Total BTEX		**361**	0.998	mg/kg	10.08.18 19.46		5000

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	72	%	70-130	10.08.18 15.26	
4-Bromofluorobenzene	460-00-4	72	%	70-130	10.08.18 15.26	

Certificate of Analytical Results 600983

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.02.18 10.17
Lab Sample Id:	600983-002	Date Collected:	09.28.18 14.25	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	10.03.18 17.00	Basis:	Wet Weight
Seq Number:	3065351				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**727**	5.00	mg/kg	10.03.18 21.56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.02.18 17.00	Basis:	Wet Weight
Seq Number:	3065182				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**6110**	74.9	mg/kg	10.03.18 09.15		5
Diesel Range Organics (DRO)	C10C28DRO	**2290**	74.9	mg/kg	10.03.18 09.15		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<74.9	74.9	mg/kg	10.03.18 09.15	U	5
Total TPH	PHC635	**8400**	74.9	mg/kg	10.03.18 09.15		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	10.03.18 09.15	
o-Terphenyl	84-15-1	115	%	70-135	10.03.18 09.15	

Certificate of Analytical Results 600983

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.02.18 10.17
Lab Sample Id:	600983-002	Date Collected:	09.28.18 14.25	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.08.18 08.30	Basis:	Wet Weight
Seq Number:	3065828				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.76**	0.497	mg/kg	10.08.18 15.06		250
Toluene	108-88-3	**40.7**	0.497	mg/kg	10.08.18 15.06		250
Ethylbenzene	100-41-4	**27.6**	0.497	mg/kg	10.08.18 15.06		250
m,p-Xylenes	179601-23-1	**197**	0.994	mg/kg	10.08.18 15.06		250
o-Xylene	95-47-6	**39.2**	0.497	mg/kg	10.08.18 15.06		250
Total Xylenes	1330-20-7	**236**	0.497	mg/kg	10.08.18 15.06		250
Total BTEX		**306**	0.497	mg/kg	10.08.18 15.06		250

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	10.08.18 15.06	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.08.18 15.06	

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 600983

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065351 Matrix: Solid Date Prep: 10.03.18
MB Sample Id: 7663484-1-BLK LCS Sample Id: 7663484-1-BKS LCSD Sample Id: 7663484-1-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	248	99	247	99	90-110	0	20	mg/kg	10.03.18 19:28	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065351 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600982-001 MS Sample Id: 600982-001 S MSD Sample Id: 600982-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	362	249	599	95	596	94	90-110	1	20	mg/kg	10.03.18 19:45	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3065351 Matrix: Soil Date Prep: 10.03.18
Parent Sample Id: 600982-005 MS Sample Id: 600982-005 S MSD Sample Id: 600982-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	285	248	527	98	527	98	90-110	0	20	mg/kg	10.03.18 21:05	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3065182 Matrix: Solid Date Prep: 10.02.18
MB Sample Id: 7663405-1-BLK LCS Sample Id: 7663405-1-BKS LCSD Sample Id: 7663405-1-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	989	99	1000	100	70-135	1	20	mg/kg	10.03.18 02:07	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1020	102	70-135	0	20	mg/kg	10.03.18 02:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		111		115		70-135	%	10.03.18 02:07
o-Terphenyl	106		110		107		70-135	%	10.03.18 02:07

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 600983

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3065182 Matrix: Soil Date Prep: 10.02.18
Parent Sample Id: 600977-001 MS Sample Id: 600977-001 S MSD Sample Id: 600977-001 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)	9.15	999	960	95	1070	106	70-135	11	20	mg/kg	10.03.18 03:03	
Diesel Range Organics (DRO)	108	999	1100	99	1250	115	70-135	13	20	mg/kg	10.03.18 03:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		129		70-135	%	10.03.18 03:03
o-Terphenyl	107		123		70-135	%	10.03.18 03:03

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3065828 Matrix: Solid Date Prep: 10.08.18
MB Sample Id: 7663817-1-BLK LCS Sample Id: 7663817-1-BKS LCSD Sample Id: 7663817-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0958	96	0.0995	99	70-130	4	35	mg/kg	10.08.18 10:25	
Toluene	<0.00200	0.100	0.0985	99	0.102	101	70-130	3	35	mg/kg	10.08.18 10:25	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.101	100	70-130	4	35	mg/kg	10.08.18 10:25	
m,p-Xylenes	<0.00401	0.200	0.187	94	0.194	96	70-130	4	35	mg/kg	10.08.18 10:25	
o-Xylene	<0.00200	0.100	0.0892	89	0.0930	92	70-130	4	35	mg/kg	10.08.18 10:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		92		93		70-130	%	10.08.18 10:25
4-Bromofluorobenzene	89		79		81		70-130	%	10.08.18 10:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3065828 Matrix: Soil Date Prep: 10.08.18
Parent Sample Id: 600814-015 MS Sample Id: 600814-015 S MSD Sample Id: 600814-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0879	88	0.0746	75	70-130	16	35	mg/kg	10.08.18 11:06	
Toluene	<0.00200	0.0998	0.0810	81	0.0663	66	70-130	20	35	mg/kg	10.08.18 11:06	X
Ethylbenzene	<0.00200	0.0998	0.0714	72	0.0563	56	70-130	24	35	mg/kg	10.08.18 11:06	X
m,p-Xylenes	<0.00399	0.200	0.138	69	0.108	54	70-130	24	35	mg/kg	10.08.18 11:06	X
o-Xylene	<0.00200	0.0998	0.0655	66	0.0508	51	70-130	25	35	mg/kg	10.08.18 11:06	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		95		70-130	%	10.08.18 11:06
4-Bromofluorobenzene	86		83		70-130	%	10.08.18 11:06

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote #: | Xenco Job #: 660983

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com | Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belin

Project Information

Project Name/Number: JRU #3 Battery
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number:

Analytical Information

BTEX EPA 8020 | TPH EPA 8015 | Chlorides 300

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	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS01	6"	9/28/18	1420	S	1								X	
2	SS02	6"	9/28/18	1425	S	1								X	
3															
4															
5															
6															
7															
8															
9															
10															

9/28/18

Turnaround Time (Business days)

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

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

Data Deliverable Information

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

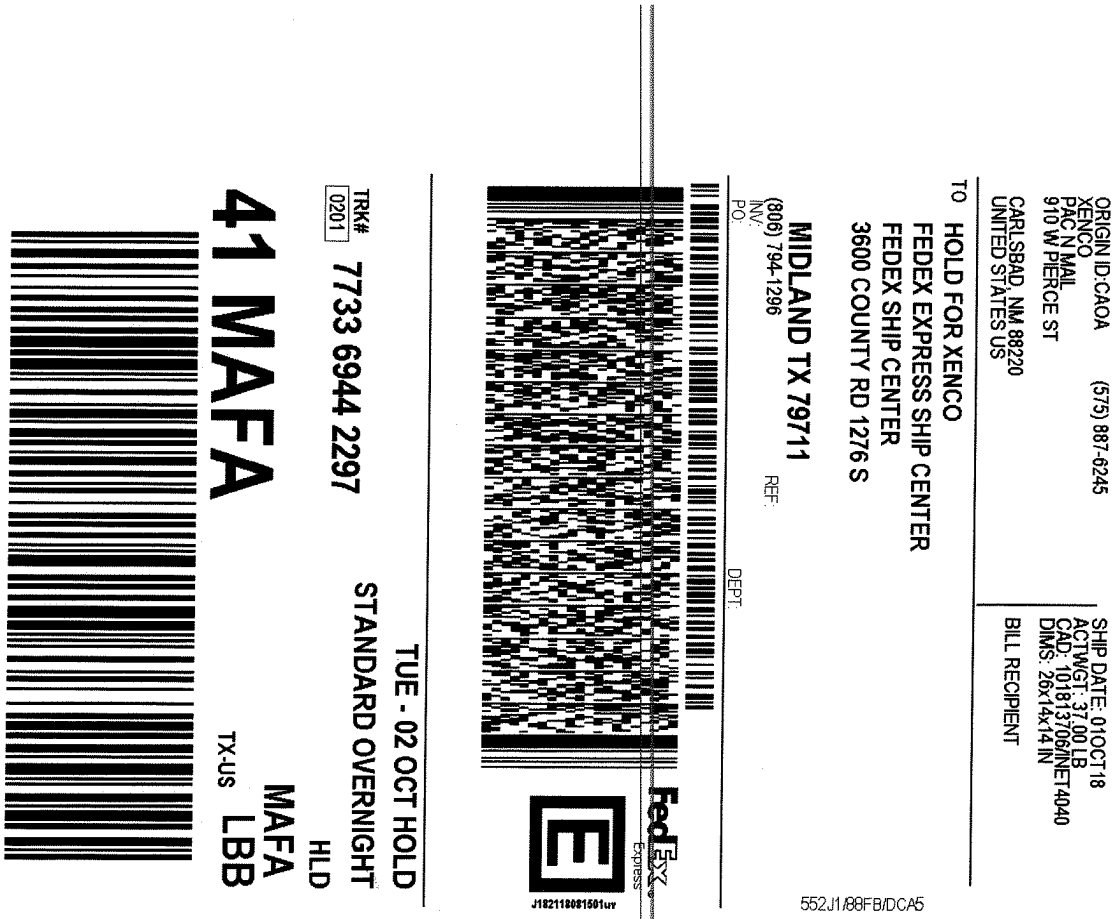
Notes:

FED-EX / UPS: Tracking # 773596442797

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

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9:30 10-1-18				
2			Brian Thomas	Brian Thomas	10:50 10-1-18	
3	Relinquished by:	Date Time: 10/1 15:30	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By: 10/2 1017	Custody Seal #	Preserved where applicable	On Ice: N / Cooler Temp: 0.2 1UE	Thermo. Corr. Factor: 0.0

Notice: 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 loses 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.



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: 10/02/2018 10:17:00 AM

Work Order #: 600983

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: 10/02/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/02/2018
Jessica Kramer

Analytical Report 602977

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

25-OCT-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)

25-OCT-18

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

Reference: XENCO Report No(s): **602977**
JRU #3 Battery
Project Address: Carlsbad, 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) 602977. 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. 602977 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

Sample Cross Reference 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	10-15-18 09:10	2 ft	602977-001
FS01	S	10-15-18 09:15	5 ft	602977-002
SW02	S	10-15-18 09:55	2 ft	602977-003
FS02	S	10-15-18 11:00	4 ft	602977-004
FS05	S	10-15-18 11:20	4 ft	602977-005
SW04	S	10-15-18 11:30	2 ft	602977-006
SW05	S	10-15-18 11:35	2 ft	602977-007
FS07	S	10-15-18 13:30	4 ft	602977-008
SW06	S	10-15-18 13:40	2 ft	602977-009
SW07	S	10-15-18 13:50	2 ft	602977-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU #3 Battery

Project ID:
Work Order Number(s): *602977*

Report Date: *25-OCT-18*
Date Received: *10/20/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067339 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 602977-004.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3067429 Inorganic Anions by EPA 300
Lab Sample ID 602978-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602977-002, -003, -004, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 602977

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	602977-001		602977-002		602977-003		602977-004		602977-005		602977-006	
	Field Id:	SW01		FS01		SW02		FS02		FS05		SW04	
	Depth:	2- ft		5- ft		2- ft		4- ft		4- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-15-18 09:10		Oct-15-18 09:15		Oct-15-18 09:55		Oct-15-18 11:00		Oct-15-18 11:20		Oct-15-18 11:30	
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30	
	Analyzed:	Oct-23-18 19:55		Oct-23-18 21:32		Oct-23-18 21:56		Oct-23-18 22:21		Oct-23-18 22:45		Oct-23-18 23:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	<0.0199	0.0199	<0.0196	0.0196	<0.0189	0.0189
Toluene		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	<0.0199	0.0199	<0.0196	0.0196	<0.0189	0.0189
Ethylbenzene		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	0.349	0.0199	0.0372	0.0196	<0.0189	0.0189
m,p-Xylenes		<0.0394	0.0394	<0.0386	0.0386	<0.0379	0.0379	0.0737	0.0398	0.110	0.0391	<0.0378	0.0378
o-Xylene		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	0.0279	0.0199	<0.0196	0.0196	<0.0189	0.0189
Total Xylenes		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	0.102	0.0199	0.110	0.0196	<0.0189	0.0189
Total BTEX		<0.0197	0.0197	<0.0193	0.0193	<0.0189	0.0189	0.451	0.0199	0.147	0.0196	<0.0189	0.0189
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-23-18 14:00		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40	
	Analyzed:	Oct-24-18 00:13		Oct-24-18 08:58		Oct-24-18 09:48		Oct-24-18 10:00		Oct-24-18 10:13		Oct-24-18 10:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		68.7	25.0	801 D	125	373	50.0	341	50.0	357	125	102	50.0
TPH by SW8015 Mod	***Extracted:***	Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00	
	Analyzed:	Oct-22-18 21:58		Oct-22-18 23:00		Oct-22-18 23:21		Oct-22-18 23:41		Oct-23-18 00:02		Oct-23-18 00:23	
	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	22.8	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		36.2	15.0	27.2	15.0	53.5	15.0	259	15.0	214	15.0	52.6	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		36.2	15.0	27.2	15.0	53.5	15.0	282	15.0	214	15.0	52.6	15.0

Certificate of Analysis Summary 602977

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	602977-007		602977-008		602977-009		602977-010					
	Field Id:	SW05		FS07		SW06		SW07					
	Depth:	2- ft		4- ft		2- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-15-18 11:35		Oct-15-18 13:30		Oct-15-18 13:40		Oct-15-18 13:50					
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30					
	Analyzed:	Oct-23-18 23:34		Oct-23-18 23:58		Oct-24-18 00:23		Oct-24-18 00:47					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
Toluene		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
Ethylbenzene		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
m,p-Xylenes		<0.0362	0.0362	<0.0394	0.0394	<0.0395	0.0395	<0.0344	0.0344				
o-Xylene		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
Total Xylenes		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
Total BTEX		<0.0181	0.0181	<0.0197	0.0197	<0.0198	0.0198	<0.0172	0.0172				
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40					
	Analyzed:	Oct-24-18 10:38		Oct-24-18 10:50		Oct-24-18 11:02		Oct-24-18 11:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		46.9	25.0	63.0	25.0	421	50.0	<25.0	25.0				
TPH by SW8015 Mod	***Extracted:***	Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00					
	Analyzed:	Oct-23-18 00:43		Oct-23-18 01:04		Oct-23-18 01:25		Oct-23-18 01:45					
	Units/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				
Diesel Range Organics (DRO)		<14.9	14.9	17.8	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				
Total TPH		<14.9	14.9	17.8	15.0	<15.0	15.0	<15.0	15.0				

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-001	Date Collected:	10.15.18 09.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.23.18 14.00	Basis:	Wet Weight
Seq Number:	3067340			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**68.7**	25.0	mg/kg	10.24.18 00.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.22.18 21.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**36.2**	15.0	mg/kg	10.22.18 21.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 21.58	U	1
Total TPH	PHC635	**36.2**	15.0	mg/kg	10.22.18 21.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.22.18 21.58	
o-Terphenyl	84-15-1	93	%	70-135	10.22.18 21.58	

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-001	Date Collected:	10.15.18 09.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1
Toluene	108-88-3	<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1
Ethylbenzene	100-41-4	<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1
m,p-Xylenes	179601-23-1	<0.0394	0.0394	mg/kg	10.23.18 19.55	U	1
o-Xylene	95-47-6	<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1
Total Xylenes	1330-20-7	<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1
Total BTEX		<0.0197	0.0197	mg/kg	10.23.18 19.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	68-120	10.23.18 19.55	
a,a,a-Trifluorotoluene	98-08-8	109	%	71-121	10.23.18 19.55	

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-002	Date Collected:	10.15.18 09.15	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**801**	125	mg/kg	10.24.18 09.11	D	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.22.18 23.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.2**	15.0	mg/kg	10.22.18 23.00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 23.00	U	1
Total TPH	PHC635	**27.2**	15.0	mg/kg	10.22.18 23.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.22.18 23.00	
o-Terphenyl	84-15-1	93	%	70-135	10.22.18 23.00	

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-002	Date Collected:	10.15.18 09.15	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1
Toluene	108-88-3	<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1
Ethylbenzene	100-41-4	<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1
m,p-Xylenes	179601-23-1	<0.0386	0.0386	mg/kg	10.23.18 21.32	U	1
o-Xylene	95-47-6	<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1
Total Xylenes	1330-20-7	<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1
Total BTEX		<0.0193	0.0193	mg/kg	10.23.18 21.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	68-120	10.23.18 21.32	
a,a,a-Trifluorotoluene	98-08-8	108	%	71-121	10.23.18 21.32	

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-003	Date Collected:	10.15.18 09.55	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**373**	50.0	mg/kg	10.24.18 09.48		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.22.18 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**53.5**	15.0	mg/kg	10.22.18 23.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 23.21	U	1
Total TPH	PHC635	**53.5**	15.0	mg/kg	10.22.18 23.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.22.18 23.21	
o-Terphenyl	84-15-1	91	%	70-135	10.22.18 23.21	

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LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-003	Date Collected:	10.15.18 09.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1
m,p-Xylenes	179601-23-1	<0.0379	0.0379	mg/kg	10.23.18 21.56	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1
Total BTEX		<0.0189	0.0189	mg/kg	10.23.18 21.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	73	%	68-120	10.23.18 21.56	
a,a,a-Trifluorotoluene	98-08-8	81	%	71-121	10.23.18 21.56	

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JRU #3 Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-004	Date Collected:	10.15.18 11.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**341**	50.0	mg/kg	10.24.18 10.00		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**22.8**	15.0	mg/kg	10.22.18 23.41		1
Diesel Range Organics (DRO)	C10C28DRO	**259**	15.0	mg/kg	10.22.18 23.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 23.41	U	1
Total TPH	PHC635	**282**	15.0	mg/kg	10.22.18 23.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.22.18 23.41	
o-Terphenyl	84-15-1	105	%	70-135	10.22.18 23.41	

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LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-004	Date Collected:	10.15.18 11.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	10.23.18 22.21	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	10.23.18 22.21	U	1
Ethylbenzene	100-41-4	**0.349**	0.0199	mg/kg	10.23.18 22.21		1
m,p-Xylenes	179601-23-1	**0.0737**	0.0398	mg/kg	10.23.18 22.21		1
o-Xylene	95-47-6	**0.0279**	0.0199	mg/kg	10.23.18 22.21		1
Total Xylenes	1330-20-7	**0.102**	0.0199	mg/kg	10.23.18 22.21		1
Total BTEX		**0.451**	0.0199	mg/kg	10.23.18 22.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	158	%	68-120	10.23.18 22.21	**
a,a,a-Trifluorotoluene	98-08-8	106	%	71-121	10.23.18 22.21	

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LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-005	Date Collected:	10.15.18 11.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**357**	125	mg/kg	10.24.18 10.13		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 00.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	**214**	15.0	mg/kg	10.23.18 00.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 00.02	U	1
Total TPH	PHC635	**214**	15.0	mg/kg	10.23.18 00.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.23.18 00.02	
o-Terphenyl	84-15-1	93	%	70-135	10.23.18 00.02	

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JRU #3 Battery

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-005	Date Collected:	10.15.18 11.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	10.23.18 22.45	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	10.23.18 22.45	U	1
Ethylbenzene	100-41-4	**0.0372**	0.0196	mg/kg	10.23.18 22.45		1
m,p-Xylenes	179601-23-1	**0.110**	0.0391	mg/kg	10.23.18 22.45		1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	10.23.18 22.45	U	1
Total Xylenes	1330-20-7	**0.110**	0.0196	mg/kg	10.23.18 22.45		1
Total BTEX		**0.147**	0.0196	mg/kg	10.23.18 22.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	68-120	10.23.18 22.45	
a,a,a-Trifluorotoluene	98-08-8	103	%	71-121	10.23.18 22.45	

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JRU #3 Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-006	Date Collected:	10.15.18 11.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**102**	50.0	mg/kg	10.24.18 10.25		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 00.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.6**	15.0	mg/kg	10.23.18 00.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 00.23	U	1
Total TPH	PHC635	**52.6**	15.0	mg/kg	10.23.18 00.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.23.18 00.23	
o-Terphenyl	84-15-1	93	%	70-135	10.23.18 00.23	

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JRU #3 Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-006	Date Collected:	10.15.18 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1
Toluene	108-88-3	<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1
Ethylbenzene	100-41-4	<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1
m,p-Xylenes	179601-23-1	<0.0378	0.0378	mg/kg	10.23.18 23.09	U	1
o-Xylene	95-47-6	<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1
Total Xylenes	1330-20-7	<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1
Total BTEX		<0.0189	0.0189	mg/kg	10.23.18 23.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	68-120	10.23.18 23.09	
a,a,a-Trifluorotoluene	98-08-8	110	%	71-121	10.23.18 23.09	

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JRU #3 Battery

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-007	Date Collected:	10.15.18 11.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**46.9**	25.0	mg/kg	10.24.18 10.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.23.18 00.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	10.23.18 00.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.23.18 00.43	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	10.23.18 00.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.23.18 00.43	
o-Terphenyl	84-15-1	93	%	70-135	10.23.18 00.43	

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JRU #3 Battery

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-007	Date Collected:	10.15.18 11.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1
Toluene	108-88-3	<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1
Ethylbenzene	100-41-4	<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1
m,p-Xylenes	179601-23-1	<0.0362	0.0362	mg/kg	10.23.18 23.34	U	1
o-Xylene	95-47-6	<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1
Total Xylenes	1330-20-7	<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1
Total BTEX		<0.0181	0.0181	mg/kg	10.23.18 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	68-120	10.23.18 23.34	
a,a,a-Trifluorotoluene	98-08-8	81	%	71-121	10.23.18 23.34	

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LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-008	Date Collected:	10.15.18 13.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**63.0**	25.0	mg/kg	10.24.18 10.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 01.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.8**	15.0	mg/kg	10.23.18 01.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 01.04	U	1
Total TPH	PHC635	**17.8**	15.0	mg/kg	10.23.18 01.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.23.18 01.04	
o-Terphenyl	84-15-1	92	%	70-135	10.23.18 01.04	

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JRU #3 Battery

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-008	Date Collected:	10.15.18 13.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1
Toluene	108-88-3	<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1
Ethylbenzene	100-41-4	<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1
m,p-Xylenes	179601-23-1	<0.0394	0.0394	mg/kg	10.23.18 23.58	U	1
o-Xylene	95-47-6	<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1
Total Xylenes	1330-20-7	<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1
Total BTEX		<0.0197	0.0197	mg/kg	10.23.18 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	68-120	10.23.18 23.58	
a,a,a-Trifluorotoluene	98-08-8	91	%	71-121	10.23.18 23.58	

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JRU #3 Battery

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-009	Date Collected:	10.15.18 13.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**421**	50.0	mg/kg	10.24.18 11.02		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 01.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.23.18 01.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 01.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.23.18 01.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.23.18 01.25	
o-Terphenyl	84-15-1	92	%	70-135	10.23.18 01.25	

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JRU #3 Battery

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-009	Date Collected:	10.15.18 13.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1
Toluene	108-88-3	<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1
Ethylbenzene	100-41-4	<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1
m,p-Xylenes	179601-23-1	<0.0395	0.0395	mg/kg	10.24.18 00.23	U	1
o-Xylene	95-47-6	<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1
Total Xylenes	1330-20-7	<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1
Total BTEX		<0.0198	0.0198	mg/kg	10.24.18 00.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	68-120	10.24.18 00.23	
a,a,a-Trifluorotoluene	98-08-8	109	%	71-121	10.24.18 00.23	

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JRU #3 Battery

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-010	Date Collected:	10.15.18 13.50	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.24.18 11.15	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 01.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.23.18 01.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 01.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.23.18 01.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.23.18 01.45	
o-Terphenyl	84-15-1	94	%	70-135	10.23.18 01.45	

Certificate of Analytical Results 602977

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602977-010	Date Collected:	10.15.18 13.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1
Toluene	108-88-3	<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1
Ethylbenzene	100-41-4	<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1
m,p-Xylenes	179601-23-1	<0.0344	0.0344	mg/kg	10.24.18 00.47	U	1
o-Xylene	95-47-6	<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1
Total Xylenes	1330-20-7	<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1
Total BTEX		<0.0172	0.0172	mg/kg	10.24.18 00.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	10.24.18 00.47	
a,a,a-Trifluorotoluene	98-08-8	109	%	71-121	10.24.18 00.47	

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 602977

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067340 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664736-1-BLK LCS Sample Id: 7664736-1-BKS LCSD Sample Id: 7664736-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.572	250	235	94	241	96	90-110	3	20	mg/kg	10.23.18 21:32	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664780-1-BLK LCS Sample Id: 7664780-1-BKS LCSD Sample Id: 7664780-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.985	250	237	95	242	97	90-110	2	20	mg/kg	10.24.18 08:33	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067340 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 603006-003 MS Sample Id: 603006-003 S MSD Sample Id: 603006-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.82	250	241	96	241	96	80-120	0	20	mg/kg	10.23.18 22:09	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602977-002 MS Sample Id: 602977-002 S MSD Sample Id: 602977-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	763	250	1070	123	1090	131	80-120	2	20	mg/kg	10.24.18 09:23	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602978-001 MS Sample Id: 602978-001 S MSD Sample Id: 602978-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	259	250	560	120	580	128	80-120	4	20	mg/kg	10.24.18 12:05	X

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

QC Summary 602977

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067249 Matrix: Solid Date Prep: 10.22.18
MB Sample Id: 7664679-1-BLK LCS Sample Id: 7664679-1-BKS LCSD Sample Id: 7664679-1-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	974	97	950	95	70-135	2	20	mg/kg	10.22.18 21:16	
Diesel Range Organics (DRO)	<8.13	1000	960	96	929	93	70-135	3	20	mg/kg	10.22.18 21:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		130		128		70-135	%	10.22.18 21:16
o-Terphenyl	101		114		108		70-135	%	10.22.18 21:16

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067249 Matrix: Soil Date Prep: 10.22.18
Parent Sample Id: 602977-001 MS Sample Id: 602977-001 S MSD Sample Id: 602977-001 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	949	95	969	97	70-135	2	20	mg/kg	10.22.18 22:18	
Diesel Range Organics (DRO)	36.2	998	969	93	993	96	70-135	2	20	mg/kg	10.22.18 22:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		127		70-135	%	10.22.18 22:18
o-Terphenyl	98		101		70-135	%	10.22.18 22:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067339 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664683-1-BLK LCS Sample Id: 7664683-1-BKS LCSD Sample Id: 7664683-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.81	91	1.78	89	55-120	2	20	mg/kg	10.23.18 17:53	
Toluene	<0.0200	2.00	1.78	89	1.87	94	77-120	5	20	mg/kg	10.23.18 17:53	
Ethylbenzene	<0.0200	2.00	1.89	95	2.00	100	77-120	6	20	mg/kg	10.23.18 17:53	
m,p-Xylenes	<0.0400	4.00	3.74	94	4.04	101	78-120	8	20	mg/kg	10.23.18 17:53	
o-Xylene	<0.0200	2.00	1.86	93	1.97	99	78-120	6	20	mg/kg	10.23.18 17:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	77		106		97		68-120	%	10.23.18 17:53
a,a,a-Trifluorotoluene	77		107		92		71-121	%	10.23.18 17:53

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

QC Summary 602977

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3067339 Matrix: Soil Date Prep: 10.23.18

Parent Sample Id: 602977-001 MS Sample Id: 602977-001 S MSD Sample Id: 602977-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0192	1.92	1.65	86	1.60	84	54-120	3	25	mg/kg	10.23.18 20:19	
Toluene	<0.0192	1.92	1.68	88	1.63	86	57-120	3	25	mg/kg	10.23.18 20:19	
Ethylbenzene	0.0138	1.92	1.77	91	1.73	90	58-131	2	25	mg/kg	10.23.18 20:19	
m,p-Xylenes	0.00986	3.85	3.54	92	3.42	90	62-124	3	25	mg/kg	10.23.18 20:19	
o-Xylene	<0.0192	1.92	1.80	94	1.71	90	62-124	5	25	mg/kg	10.23.18 20:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		99		68-120	%	10.23.18 20:19
a,a,a-Trifluorotoluene	107		105		71-121	%	10.23.18 20:19

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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www.xenco.com
Phoenix, Arizona (480-355-0900)

Xenco Quote # | Xenco Job # 602977

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com | Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belill

Project Information

Project Name/Number: JRU #3 Battery
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-4991

Analytical Information

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA 8020	TPH EPA 8015	Chloride 300.1
1	SW01	2'	10/15/18	0910	S	1								X	X	X	X
2	FS01	5'		0915										X	X	X	X
3	SW02	2'		0955										X	X	X	X
4	FS02	4'		1100										X	X	X	X
5	FS05	4'		1120										X	X	X	X
6	SW04	2'		1130										X	X	X	X
7	SW05	2'		1135										X	X	X	X
8	FS07	4'		1330										X	X	X	X
9	SW06	2'		1340										X	X	X	X
10	SW07	2'		1350										X	X	X	X

Collection | Number of preserved bottles

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

Field Comments: Composite Type

Turnaround Time (Business days)

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

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

Data Deliverable Information

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

Notes:

FED-EX / UPS: Tracking #

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

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	B.T. Belill	10/19/18@1455	Patrice			
2				Patrice	10/19/18 15:30	Rennell 10/20/18 0900
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp / Thermo. Corr. Factor
						On Ice ☒ 3.0 Ice 0.0

Notice: 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 loses 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.

ORIGIN ID:CAOA (575) 887-6245
XENCO SATURDAY
PAC N MAIL
910 W PIERCE ST
CARLSBAD, NM 88220
UNITED STATES US

SHIP DATE: 19OCT18
ACTWGT: 68.00 LB
CAD: 101813706/INET4040
DIMS: 26x14x15 IN
BILL RECIPIENT

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41 MAFA

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Inter-Office Shipment

IOS Number **115870**

Date/Time: 10/22/18 09:33
Created by: Brianna Teel
Please send report to: Jessica Kramer

Lab# From: **Midland**
Delivery Priority:
Address: 1211 W. Florida Ave, Midland TX 79701

Lab# To: **Lubbock**
Air Bill No.: fedex
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602977-001	S	SW01	10/15/18 09:10	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-001	S	SW01	10/15/18 09:10	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-002	S	FS01	10/15/18 09:15	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-002	S	FS01	10/15/18 09:15	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-003	S	SW02	10/15/18 09:55	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-003	S	SW02	10/15/18 09:55	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-004	S	FS02	10/15/18 11:00	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-004	S	FS02	10/15/18 11:00	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-005	S	FS05	10/15/18 11:20	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-005	S	FS05	10/15/18 11:20	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-006	S	SW04	10/15/18 11:30	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-006	S	SW04	10/15/18 11:30	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-007	S	SW05	10/15/18 11:35	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-007	S	SW05	10/15/18 11:35	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-008	S	FS07	10/15/18 13:30	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-008	S	FS07	10/15/18 13:30	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-009	S	SW06	10/15/18 13:40	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	
602977-009	S	SW06	10/15/18 13:40	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-010	S	SW07	10/15/18 13:50	SW8021B	BTEX by EPA 8021B	10/26/18	10/29/18	JKR	BR4FBZ BZ BZME EBZ X	
602977-010	S	SW07	10/15/18 13:50	E300	Inorganic Anions by EPA 300	10/26/18	11/12/18	JKR	CL	

Inter-Office Shipment

IOS Number **115870**

Date/Time: 10/22/18 09:33
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/22/2018

Received By:
Ashley Derstine

Date Received: 10/23/2018 09:00

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115870

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 10/22/2018 09:33 AM

Received By: Ashley Derstine **Date Received:** 10/23/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10/23/2018

Ashley Derstine

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/20/2018 09:00:00 AM

Work Order #: 602977

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	
#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)?	**Yes**	Lubbock-BTEX & Chlorides
#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: 10/22/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/22/2018
Jessica Kramer

Analytical Report 602978

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

25-OCT-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)

25-OCT-18

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

Reference: XENCO Report No(s): **602978**
JRU #3 Battery
Project Address: Carlsbad, 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) 602978. 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. 602978 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

Sample Cross Reference 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS09	S	10-18-18 11:30	6 ft	602978-001
SW09	S	10-18-18 13:45	3 ft	602978-002
SW20	S	10-18-18 15:40	3 ft	602978-003
FS10	S	10-18-18 15:45	6 ft	602978-004
FS11	S	10-18-18 15:55	5 ft	602978-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU #3 Battery

Project ID:
Work Order Number(s): *602978*

Report Date: *25-OCT-18*
Date Received: *10/20/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067339 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3067429 Inorganic Anions by EPA 300
Lab Sample ID 602978-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602978-001, -002, -003, -004, -005.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 602978

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	602978-001		602978-002		602978-003		602978-004		602978-005	
	Field Id:	FS09		SW09		SW20		FS10		FS11	
	Depth:	6- ft		3- ft		3- ft		6- ft		5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-18-18 11:30		Oct-18-18 13:45		Oct-18-18 15:40		Oct-18-18 15:45		Oct-18-18 15:55	
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30	
	Analyzed:	Oct-24-18 01:59		Oct-24-18 02:23		Oct-24-18 02:47		Oct-24-18 03:11		Oct-24-18 03:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
Toluene		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
Ethylbenzene		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
m,p-Xylenes		<0.0382	0.0382	<0.0373	0.0373	<0.0347	0.0347	<0.0377	0.0377	<0.0390	0.0390
o-Xylene		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
Total Xylenes		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
Total BTEX		<0.0191	0.0191	<0.0187	0.0187	<0.0173	0.0173	<0.0188	0.0188	<0.0195	0.0195
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40	
	Analyzed:	Oct-24-18 11:40		Oct-24-18 12:29		Oct-24-18 12:42		Oct-24-18 12:54		Oct-24-18 13:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		259	25.0	<25.0	25.0	<25.0	25.0	464	250	1090	250
TPH by SW8015 Mod	***Extracted:***	Oct-23-18 17:00		Oct-23-18 17:00		Oct-23-18 17:00		Oct-23-18 17:00		Oct-23-18 17:00	
	Analyzed:	Oct-24-18 02:00		Oct-24-18 02:21		Oct-24-18 02:41		Oct-24-18 03:01		Oct-24-18 03:21	
	Units/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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	41.4	15.0	90.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	41.4	15.0	90.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-001	Date Collected:	10.18.18 11.30	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**259**	25.0	mg/kg	10.24.18 11.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 17.00	Basis:	Wet Weight
Seq Number:	3067316				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.24.18 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.24.18 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.24.18 02.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.24.18 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.24.18 02.00	
o-Terphenyl	84-15-1	92	%	70-135	10.24.18 02.00	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-001	Date Collected:	10.18.18 11.30	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1
Toluene	108-88-3	<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1
Ethylbenzene	100-41-4	<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1
m,p-Xylenes	179601-23-1	<0.0382	0.0382	mg/kg	10.24.18 01.59	U	1
o-Xylene	95-47-6	<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1
Total Xylenes	1330-20-7	<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1
Total BTEX		<0.0191	0.0191	mg/kg	10.24.18 01.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	68-120	10.24.18 01.59	
a,a,a-Trifluorotoluene	98-08-8	109	%	71-121	10.24.18 01.59	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-002	Date Collected:	10.18.18 13.45	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.24.18 12.29	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 17.00	Basis:	Wet Weight
Seq Number:	3067316				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.24.18 02.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.24.18 02.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.24.18 02.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.24.18 02.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.24.18 02.21	
o-Terphenyl	84-15-1	92	%	70-135	10.24.18 02.21	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-002	Date Collected:	10.18.18 13.45	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1
Toluene	108-88-3	<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1
Ethylbenzene	100-41-4	<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1
m,p-Xylenes	179601-23-1	<0.0373	0.0373	mg/kg	10.24.18 02.23	U	1
o-Xylene	95-47-6	<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1
Total Xylenes	1330-20-7	<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1
Total BTEX		<0.0187	0.0187	mg/kg	10.24.18 02.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	68-120	10.24.18 02.23	
a,a,a-Trifluorotoluene	98-08-8	88	%	71-121	10.24.18 02.23	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-003	Date Collected:	10.18.18 15.40	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.24.18 12.42	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 17.00	Basis:	Wet Weight
Seq Number:	3067316				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.24.18 02.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.24.18 02.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.24.18 02.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.24.18 02.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.24.18 02.41	
o-Terphenyl	84-15-1	91	%	70-135	10.24.18 02.41	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-003	Date Collected:	10.18.18 15.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1
Toluene	108-88-3	<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1
Ethylbenzene	100-41-4	<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1
m,p-Xylenes	179601-23-1	<0.0347	0.0347	mg/kg	10.24.18 02.47	U	1
o-Xylene	95-47-6	<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1
Total Xylenes	1330-20-7	<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1
Total BTEX		<0.0173	0.0173	mg/kg	10.24.18 02.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	10.24.18 02.47	
a,a,a-Trifluorotoluene	98-08-8	90	%	71-121	10.24.18 02.47	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-004	Date Collected:	10.18.18 15.45	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**464**	250	mg/kg	10.24.18 12.54		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 17.00	Basis:	Wet Weight
Seq Number:	3067316				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.24.18 03.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**41.4**	15.0	mg/kg	10.24.18 03.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.24.18 03.01	U	1
Total TPH	PHC635	**41.4**	15.0	mg/kg	10.24.18 03.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	10.24.18 03.01	
o-Terphenyl	84-15-1	90	%	70-135	10.24.18 03.01	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-004	Date Collected:	10.18.18 15.45	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1
Toluene	108-88-3	<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1
Ethylbenzene	100-41-4	<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1
m,p-Xylenes	179601-23-1	<0.0377	0.0377	mg/kg	10.24.18 03.11	U	1
o-Xylene	95-47-6	<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1
Total Xylenes	1330-20-7	<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1
Total BTEX		<0.0188	0.0188	mg/kg	10.24.18 03.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	68-120	10.24.18 03.11	
a,a,a-Trifluorotoluene	98-08-8	81	%	71-121	10.24.18 03.11	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-005	Date Collected:	10.18.18 15.55	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	250	mg/kg	10.24.18 13.07		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 17.00	Basis:	Wet Weight
Seq Number:	3067316				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.24.18 03.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**90.0**	15.0	mg/kg	10.24.18 03.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.24.18 03.21	U	1
Total TPH	PHC635	**90.0**	15.0	mg/kg	10.24.18 03.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.24.18 03.21	
o-Terphenyl	84-15-1	90	%	70-135	10.24.18 03.21	

Certificate of Analytical Results 602978

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602978-005	Date Collected:	10.18.18 15.55	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1
Toluene	108-88-3	<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1
Ethylbenzene	100-41-4	<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1
m,p-Xylenes	179601-23-1	<0.0390	0.0390	mg/kg	10.24.18 03.35	U	1
o-Xylene	95-47-6	<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1
Total Xylenes	1330-20-7	<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1
Total BTEX		<0.0195	0.0195	mg/kg	10.24.18 03.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	75	%	68-120	10.24.18 03.35	
a,a,a-Trifluorotoluene	98-08-8	81	%	71-121	10.24.18 03.35	

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 602978

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664780-1-BLK LCS Sample Id: 7664780-1-BKS LCSD Sample Id: 7664780-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.985	250	237	95	242	97	90-110	2	20	mg/kg	10.24.18 08:33	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602977-002 MS Sample Id: 602977-002 S MSD Sample Id: 602977-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	763	250	1070	123	1090	131	80-120	2	20	mg/kg	10.24.18 09:23	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602978-001 MS Sample Id: 602978-001 S MSD Sample Id: 602978-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	259	250	560	120	580	128	80-120	4	20	mg/kg	10.24.18 12:05	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067316 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664708-1-BLK LCS Sample Id: 7664708-1-BKS LCSD Sample Id: 7664708-1-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	1100	110	1040	104	70-135	6	20	mg/kg	10.23.18 18:54	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1050	105	70-135	6	20	mg/kg	10.23.18 18:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		122		120		70-135	%	10.23.18 18:54
o-Terphenyl	97		113		104		70-135	%	10.23.18 18:54

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 602978

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067316 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 603124-001 MS Sample Id: 603124-001 S MSD Sample Id: 603124-001 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	999	971	97	986	99	70-135	2	20	mg/kg	10.23.18 19:55	
Diesel Range Organics (DRO)	<8.12	999	980	98	992	99	70-135	1	20	mg/kg	10.23.18 19:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		111		70-135	%	10.23.18 19:55
o-Terphenyl	104		98		70-135	%	10.23.18 19:55

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067339 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664683-1-BLK LCS Sample Id: 7664683-1-BKS LCSD Sample Id: 7664683-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.81	91	1.78	89	55-120	2	20	mg/kg	10.23.18 17:53	
Toluene	<0.0200	2.00	1.78	89	1.87	94	77-120	5	20	mg/kg	10.23.18 17:53	
Ethylbenzene	<0.0200	2.00	1.89	95	2.00	100	77-120	6	20	mg/kg	10.23.18 17:53	
m,p-Xylenes	<0.0400	4.00	3.74	94	4.04	101	78-120	8	20	mg/kg	10.23.18 17:53	
o-Xylene	<0.0200	2.00	1.86	93	1.97	99	78-120	6	20	mg/kg	10.23.18 17:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	77		106		97		68-120	%	10.23.18 17:53
a,a,a-Trifluorotoluene	77		107		92		71-121	%	10.23.18 17:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067339 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 602977-001 MS Sample Id: 602977-001 S MSD Sample Id: 602977-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0192	1.92	1.65	86	1.60	84	54-120	3	25	mg/kg	10.23.18 20:19	
Toluene	<0.0192	1.92	1.68	88	1.63	86	57-120	3	25	mg/kg	10.23.18 20:19	
Ethylbenzene	0.0138	1.92	1.77	91	1.73	90	58-131	2	25	mg/kg	10.23.18 20:19	
m,p-Xylenes	0.00986	3.85	3.54	92	3.42	90	62-124	3	25	mg/kg	10.23.18 20:19	
o-Xylene	<0.0192	1.92	1.80	94	1.71	90	62-124	5	25	mg/kg	10.23.18 20:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		99		68-120	%	10.23.18 20:19
a,a,a-Trifluorotoluene	107		105		71-121	%	10.23.18 20:19

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

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | San Antonio, Texas (210-509-3334) | Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300) | Midland, Texas (432-704-5251)

www.xenco.com

Xenco Quote # | Xenco Job # 602978

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office

Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705

Email: Abaker@ltenv.com | Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Ben Belill

Project Information

Project Name/Number: JRU #3 Battery

Project Location: Carlsbad, Nm

Invoice To: XTO Energy - Kyle Littrell

PO Number: 2RP-4991

Analytical Information

BTEX EPA 8021

TPH EPA 8015

Chloride 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	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	FS09	6'	10/18/18	1130	S	1								X	Composite Type
2	SW09	3'		1345										X	
3	SW20	3'		1540										X	
4	FS10	6'		1545										X	
5	FS11	5'		1555										X	
6															
7															
8															
9															
10															

10/18/18 BSB

Turnaround Time (Business days)

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

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
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

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	Sampler:	10/19/18 @ 1455				
2					10/19/18 15:30	10/20/18 0900
3						
4						
5				Custody Seal #	Preserved where applicable	On Ice: Cooler Temp. 3.0 Thermo. Corr. Factor 0.0

Notice: 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 loses 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.

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.

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Inter-Office Shipment

IOS Number **115869**

Date/Time: 10/22/18 09:14
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602978-001	S	FS09	10/18/18 11:30	E300	Inorganic Anions by EPA 300	10/26/18	11/15/18	JKR	CL	
602978-001	S	FS09	10/18/18 11:30	SW8021B	BTEX by EPA 8021B	10/26/18	11/01/18	JKR	BR4FBZ BZ BZME EBZ X	
602978-002	S	SW09	10/18/18 13:45	E300	Inorganic Anions by EPA 300	10/26/18	11/15/18	JKR	CL	
602978-002	S	SW09	10/18/18 13:45	SW8021B	BTEX by EPA 8021B	10/26/18	11/01/18	JKR	BR4FBZ BZ BZME EBZ X	
602978-003	S	SW20	10/18/18 15:40	E300	Inorganic Anions by EPA 300	10/26/18	11/15/18	JKR	CL	
602978-003	S	SW20	10/18/18 15:40	SW8021B	BTEX by EPA 8021B	10/26/18	11/01/18	JKR	BR4FBZ BZ BZME EBZ X	
602978-004	S	FS10	10/18/18 15:45	SW8021B	BTEX by EPA 8021B	10/26/18	11/01/18	JKR	BR4FBZ BZ BZME EBZ X	
602978-004	S	FS10	10/18/18 15:45	E300	Inorganic Anions by EPA 300	10/26/18	11/15/18	JKR	CL	
602978-005	S	FS11	10/18/18 15:55	SW8021B	BTEX by EPA 8021B	10/26/18	11/01/18	JKR	BR4FBZ BZ BZME EBZ X	
602978-005	S	FS11	10/18/18 15:55	E300	Inorganic Anions by EPA 300	10/26/18	11/15/18	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/22/2018

Received By:
Ashley Derstine

Date Received: 10/23/2018 09:00

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115869

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 10/22/2018 09:14 AM

Received By: Ashley Derstine **Date Received:** 10/23/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10/23/2018

Ashley Derstine

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/20/2018 09:00:00 AM

Work Order #: 602978

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	
#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)?	**Yes**	Lubbock-BTEX & Chlorides
#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: 10/22/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/22/2018
Jessica Kramer

Analytical Report 602979

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

25-OCT-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)

25-OCT-18

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

Reference: XENCO Report No(s): **602979**
JRU #3 Battery
Project Address: Carlsbad, 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) 602979. 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. 602979 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

Sample Cross Reference 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS06	S	10-16-18 10:20	8 ft	602979-001
FS04	S	10-16-18 13:00	6 ft	602979-002
FS03	S	10-16-18 14:15	8 ft	602979-003
SW03	S	10-16-18 15:15	3 ft	602979-004

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067339 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 602979-003.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 602979

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	602979-001		602979-002		602979-003		602979-004					
	Field Id:	FS06		FS04		FS03		SW03					
	Depth:	8- ft		6- ft		8- ft		3- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-16-18 10:20		Oct-16-18 13:00		Oct-16-18 14:15		Oct-16-18 15:15					
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30					
	Analyzed:	Oct-24-18 03:59		Oct-24-18 04:23		Oct-24-18 04:47		Oct-24-18 05:11					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
Toluene		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
Ethylbenzene		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
m,p-Xylenes		<0.0348	0.0348	<0.0387	0.0387	<0.0398	0.0398	<0.0364	0.0364				
o-Xylene		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
Total Xylenes		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
Total BTEX		<0.0174	0.0174	<0.0193	0.0193	<0.0199	0.0199	<0.0182	0.0182				
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40		Oct-24-18 07:40					
	Analyzed:	Oct-24-18 13:19		Oct-24-18 13:31		Oct-24-18 13:44		Oct-24-18 13:56					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		487	125	567	125	314	125	152	50.0				
TPH by SW8015 Mod	***Extracted:***	Oct-23-18 10:00		Oct-23-18 10:00		Oct-23-18 10:00		Oct-23-18 10:00					
	Analyzed:	Oct-23-18 17:47		Oct-23-18 18:06		Oct-23-18 18:26		Oct-23-18 18:45					
	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	<15.0	15.0				
Diesel Range Organics (DRO)		37.1	15.0	55.5	15.0	31.3	15.0	40.2	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total TPH		37.1	15.0	55.5	15.0	31.3	15.0	40.2	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-001	Date Collected:	10.16.18 10.20	Sample Depth:	8 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**487**	125	mg/kg	10.24.18 13.19		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 10.00	Basis:	Wet Weight
Seq Number:	3067317				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 17.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**37.1**	15.0	mg/kg	10.23.18 17.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 17.47	U	1
Total TPH	PHC635	**37.1**	15.0	mg/kg	10.23.18 17.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.23.18 17.47	
o-Terphenyl	84-15-1	97	%	70-135	10.23.18 17.47	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-001	Date Collected:	10.16.18 10.20	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1
Toluene	108-88-3	<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1
Ethylbenzene	100-41-4	<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1
m,p-Xylenes	179601-23-1	<0.0348	0.0348	mg/kg	10.24.18 03.59	U	1
o-Xylene	95-47-6	<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1
Total Xylenes	1330-20-7	<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1
Total BTEX		<0.0174	0.0174	mg/kg	10.24.18 03.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	68-120	10.24.18 03.59	
a,a,a-Trifluorotoluene	98-08-8	80	%	71-121	10.24.18 03.59	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-002	Date Collected:	10.16.18 13.00	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**567**	125	mg/kg	10.24.18 13.31		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 10.00	Basis:	Wet Weight
Seq Number:	3067317				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 18.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	**55.5**	15.0	mg/kg	10.23.18 18.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 18.06	U	1
Total TPH	PHC635	**55.5**	15.0	mg/kg	10.23.18 18.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.23.18 18.06	
o-Terphenyl	84-15-1	111	%	70-135	10.23.18 18.06	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-002	Date Collected:	10.16.18 13.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1
Toluene	108-88-3	<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1
Ethylbenzene	100-41-4	<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1
m,p-Xylenes	179601-23-1	<0.0387	0.0387	mg/kg	10.24.18 04.23	U	1
o-Xylene	95-47-6	<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1
Total Xylenes	1330-20-7	<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1
Total BTEX		<0.0193	0.0193	mg/kg	10.24.18 04.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	68-120	10.24.18 04.23	
a,a,a-Trifluorotoluene	98-08-8	89	%	71-121	10.24.18 04.23	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-003	Date Collected:	10.16.18 14.15	Sample Depth:	8 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**314**	125	mg/kg	10.24.18 13.44		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 10.00	Basis:	Wet Weight
Seq Number:	3067317				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 18.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**31.3**	15.0	mg/kg	10.23.18 18.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 18.26	U	1
Total TPH	PHC635	**31.3**	15.0	mg/kg	10.23.18 18.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.23.18 18.26	
o-Terphenyl	84-15-1	96	%	70-135	10.23.18 18.26	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-003	Date Collected:	10.16.18 14.15	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1
Ethylbenzene	100-41-4	<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1
m,p-Xylenes	179601-23-1	<0.0398	0.0398	mg/kg	10.24.18 04.47	U	1
o-Xylene	95-47-6	<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1
Total Xylenes	1330-20-7	<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1
Total BTEX		<0.0199	0.0199	mg/kg	10.24.18 04.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	67	%	68-120	10.24.18 04.47	**
a,a,a-Trifluorotoluene	98-08-8	75	%	71-121	10.24.18 04.47	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-004	Date Collected:	10.16.18 15.15	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 07.40	Basis:	Wet Weight
Seq Number:	3067429			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**152**	50.0	mg/kg	10.24.18 13.56		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.23.18 10.00	Basis:	Wet Weight
Seq Number:	3067317				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 18.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	**40.2**	15.0	mg/kg	10.23.18 18.45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 18.45	U	1
Total TPH	PHC635	**40.2**	15.0	mg/kg	10.23.18 18.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.23.18 18.45	
o-Terphenyl	84-15-1	94	%	70-135	10.23.18 18.45	

Certificate of Analytical Results 602979

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602979-004	Date Collected:	10.16.18 15.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067339			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1
Toluene	108-88-3	<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1
Ethylbenzene	100-41-4	<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1
m,p-Xylenes	179601-23-1	<0.0364	0.0364	mg/kg	10.24.18 05.11	U	1
o-Xylene	95-47-6	<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1
Total Xylenes	1330-20-7	<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1
Total BTEX		<0.0182	0.0182	mg/kg	10.24.18 05.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	68-120	10.24.18 05.11	
a,a,a-Trifluorotoluene	98-08-8	89	%	71-121	10.24.18 05.11	

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

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 602979

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664780-1-BLK LCS Sample Id: 7664780-1-BKS LCSD Sample Id: 7664780-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.985	250	237	95	242	97	90-110	2	20	mg/kg	10.24.18 08:33	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602977-002 MS Sample Id: 602977-002 S MSD Sample Id: 602977-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	763	250	1070	123	1090	131	80-120	2	20	mg/kg	10.24.18 09:23	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067429 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602978-001 MS Sample Id: 602978-001 S MSD Sample Id: 602978-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	259	250	560	120	580	128	80-120	4	20	mg/kg	10.24.18 12:05	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067317 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664709-1-BLK LCS Sample Id: 7664709-1-BKS LCSD Sample Id: 7664709-1-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	1030	103	938	94	70-135	9	20	mg/kg	10.23.18 11:20	
Diesel Range Organics (DRO)	<8.13	1000	1080	108	1040	104	70-135	4	20	mg/kg	10.23.18 11:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		127		123		70-135	%	10.23.18 11:20
o-Terphenyl	96		103		97		70-135	%	10.23.18 11:20

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 602979

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067317 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 603112-003 MS Sample Id: 603112-003 S MSD Sample Id: 603112-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	998	996	100	958	96	70-135	4	20	mg/kg	10.23.18 12:55	
Diesel Range Organics (DRO)	12.0	998	1040	103	1040	103	70-135	0	20	mg/kg	10.23.18 12:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	10.23.18 12:55
o-Terphenyl	120		120		70-135	%	10.23.18 12:55

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067339 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664683-1-BLK LCS Sample Id: 7664683-1-BKS LCSD Sample Id: 7664683-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.81	91	1.78	89	55-120	2	20	mg/kg	10.23.18 17:53	
Toluene	<0.0200	2.00	1.78	89	1.87	94	77-120	5	20	mg/kg	10.23.18 17:53	
Ethylbenzene	<0.0200	2.00	1.89	95	2.00	100	77-120	6	20	mg/kg	10.23.18 17:53	
m,p-Xylenes	<0.0400	4.00	3.74	94	4.04	101	78-120	8	20	mg/kg	10.23.18 17:53	
o-Xylene	<0.0200	2.00	1.86	93	1.97	99	78-120	6	20	mg/kg	10.23.18 17:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	77		106		97		68-120	%	10.23.18 17:53
a,a,a-Trifluorotoluene	77		107		92		71-121	%	10.23.18 17:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067339 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 602977-001 MS Sample Id: 602977-001 S MSD Sample Id: 602977-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0192	1.92	1.65	86	1.60	84	54-120	3	25	mg/kg	10.23.18 20:19	
Toluene	<0.0192	1.92	1.68	88	1.63	86	57-120	3	25	mg/kg	10.23.18 20:19	
Ethylbenzene	0.0138	1.92	1.77	91	1.73	90	58-131	2	25	mg/kg	10.23.18 20:19	
m,p-Xylenes	0.00986	3.85	3.54	92	3.42	90	62-124	3	25	mg/kg	10.23.18 20:19	
o-Xylene	<0.0192	1.92	1.80	94	1.71	90	62-124	5	25	mg/kg	10.23.18 20:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	104		99		68-120	%	10.23.18 20:19
a,a,a-Trifluorotoluene	107		105		71-121	%	10.23.18 20:19

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

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | San Antonio, Texas (210-509-3334) | Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300) | Midland, Texas (432-704-5251)

www.xenco.com

Xenco Quote # | Xenco Job # 607979

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office

Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705

Email: Abaker@ltenv.com | Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Ben Belth

Project Information

Project Name/Number: JRU #3 Battery

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 2RP-4991

Analytical Information

BTEX EPA 8020 | TPH EPA 8015 | Chloride 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	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	FS06	8'	10/16/18	1020	S	1								X	Composite Type
2	FS04	6'	↓	1300	↓	↓								X	
3	FS03	8'		1415										X	
4	SW03	3'	↓	1515	↓	↓								X	
5															
6															
7															
8															
9															
10															

10/16/18 BTB

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

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

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level III Std QC+ Forms
- ☐ Level 3 (CLP Forms)
- ☐ TRRP Checklist
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ TRRP Level IV
- ☐ UST / RG -411

Notes:

FED-EX / UPS: Tracking #

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	Ben T. Belth	10/19/18@1455	Chase Pulliam			
2				Chase Pulliam	10/19/18 1530	Mercer 10/20/18 0900
3						
4						
5						

Custody Seal # | Preserved where applicable | On Ice ☒ | Cooler Temp. 3.0 | Thermo. Corr. Factor 1.000

Notice: 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 loses 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.

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.

Inter-Office Shipment

IOS Number **115868**

Date/Time: 10/22/18 09:06
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602979-001	S	FS06	10/16/18 10:20	E300	Inorganic Anions by EPA 300	10/26/18	11/13/18	JKR	CL	
602979-001	S	FS06	10/16/18 10:20	SW8021B	BTEX by EPA 8021B	10/26/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602979-002	S	FS04	10/16/18 13:00	E300	Inorganic Anions by EPA 300	10/26/18	11/13/18	JKR	CL	
602979-002	S	FS04	10/16/18 13:00	SW8021B	BTEX by EPA 8021B	10/26/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602979-003	S	FS03	10/16/18 14:15	SW8021B	BTEX by EPA 8021B	10/26/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602979-003	S	FS03	10/16/18 14:15	E300	Inorganic Anions by EPA 300	10/26/18	11/13/18	JKR	CL	
602979-004	S	SW03	10/16/18 15:15	SW8021B	BTEX by EPA 8021B	10/26/18	10/30/18	JKR	BR4FBZ BZ BZME EBZ X	
602979-004	S	SW03	10/16/18 15:15	E300	Inorganic Anions by EPA 300	10/26/18	11/13/18	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/22/2018

Received By:
Ashley Derstine

Date Received: 10/23/2018 09:00

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115868

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 10/22/2018 09:06 AM

Received By: Ashley Derstine **Date Received:** 10/23/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10/23/2018

Ashley Derstine

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/20/2018 09:00:00 AM

Work Order #: 602979

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	
#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)?	**Yes**	Lubbock-BTEX & Chlorides
#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: 10/22/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/22/2018
Jessica Kramer

Analytical Report 602980

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

25-OCT-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)

25-OCT-18

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

Reference: XENCO Report No(s): **602980**
JRU #3 Battery
Project Address: Carlsbad, 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) 602980. 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. 602980 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

Sample Cross Reference 602980

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS08	S	10-17-18 13:45	4 ft	602980-001
SW08	S	10-17-18 14:00	2 ft	602980-002

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067329 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene, Surrogate a,a,a-Trifluorotoluene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 602980-001 SD.

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 602980-001, -002

Lab Sample ID 602980-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602980-001, -002.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3067438 Inorganic Anions by EPA 300

Lab Sample ID 602981-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602980-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 602980

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	602980-001		602980-002					
	Field Id:	FS08		SW08					
	Depth:	4- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-17-18 13:45		Oct-17-18 14:00					
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30					
	Analyzed:	Oct-23-18 16:56		Oct-23-18 18:44					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0192	0.0192	<0.0177	0.0177				
Toluene		<0.0192	0.0192	<0.0177	0.0177				
Ethylbenzene		<0.0192	0.0192	<0.0177	0.0177				
m,p-Xylenes		<0.0383	0.0383	<0.0353	0.0353				
o-Xylene		<0.0192	0.0192	<0.0177	0.0177				
Total Xylenes		<0.0192	0.0192	<0.0177	0.0177				
Total BTEX		<0.0192	0.0192	<0.0177	0.0177				
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-24-18 12:00		Oct-24-18 12:00					
	Analyzed:	Oct-24-18 15:23		Oct-24-18 16:13					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		380	25.0	<25.0	25.0				
TPH by SW8015 Mod	***Extracted:***	Oct-22-18 10:00		Oct-22-18 10:00					
	Analyzed:	Oct-22-18 19:53		Oct-22-18 20:14					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		44.5	15.0	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		44.5	15.0	<15.0	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 602980

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602980-001	Date Collected:	10.17.18 13.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**380**	25.0	mg/kg	10.24.18 15.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 10.00	Basis:	Wet Weight
Seq Number:	3067248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.22.18 19.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**44.5**	15.0	mg/kg	10.22.18 19.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 19.53	U	1
Total TPH	PHC635	**44.5**	15.0	mg/kg	10.22.18 19.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.22.18 19.53	
o-Terphenyl	84-15-1	90	%	70-135	10.22.18 19.53	

Certificate of Analytical Results 602980

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602980-001	Date Collected:	10.17.18 13.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1
Toluene	108-88-3	<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1
Ethylbenzene	100-41-4	<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1
m,p-Xylenes	179601-23-1	<0.0383	0.0383	mg/kg	10.23.18 16.56	U	1
o-Xylene	95-47-6	<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1
Total Xylenes	1330-20-7	<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1
Total BTEX		<0.0192	0.0192	mg/kg	10.23.18 16.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	68-120	10.23.18 16.56	
a,a,a-Trifluorotoluene	98-08-8	78	%	71-121	10.23.18 16.56	

Certificate of Analytical Results 602980

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602980-002	Date Collected:	10.17.18 14.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<25.0	25.0	mg/kg	10.24.18 16.13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 10.00	Basis:	Wet Weight
Seq Number:	3067248				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.22.18 20.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.22.18 20.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.22.18 20.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.22.18 20.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.22.18 20.14	
o-Terphenyl	84-15-1	91	%	70-135	10.22.18 20.14	

Certificate of Analytical Results 602980

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602980-002	Date Collected:	10.17.18 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1
Toluene	108-88-3	<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1
Ethylbenzene	100-41-4	<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1
m,p-Xylenes	179601-23-1	<0.0353	0.0353	mg/kg	10.23.18 18.44	U	1
o-Xylene	95-47-6	<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1
Total Xylenes	1330-20-7	<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1
Total BTEX		<0.0177	0.0177	mg/kg	10.23.18 18.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	68-120	10.23.18 18.44	
a,a,a-Trifluorotoluene	98-08-8	84	%	71-121	10.23.18 18.44	

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 602980

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664782-1-BLK LCS Sample Id: 7664782-1-BKS LCSD Sample Id: 7664782-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.26	250	250	100	249	100	90-110	0	20	mg/kg	10.24.18 14:58	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602980-001 MS Sample Id: 602980-001 S MSD Sample Id: 602980-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	380	250	674	118	682	121	80-120	1	20	mg/kg	10.24.18 15:48	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602981-008 MS Sample Id: 602981-008 S MSD Sample Id: 602981-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1070	250	1510	176	1480	164	80-120	2	20	mg/kg	10.24.18 18:29	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067248 Matrix: Solid Date Prep: 10.22.18
MB Sample Id: 7664678-1-BLK LCS Sample Id: 7664678-1-BKS LCSD Sample Id: 7664678-1-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	946	95	977	98	70-135	3	20	mg/kg	10.22.18 11:35	
Diesel Range Organics (DRO)	<8.13	1000	957	96	1010	101	70-135	5	20	mg/kg	10.22.18 11:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		128		117		70-135	%	10.22.18 11:35
o-Terphenyl	104		105		109		70-135	%	10.22.18 11:35

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 602980

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067248 Matrix: Soil Date Prep: 10.22.18
Parent Sample Id: 602878-001 MS Sample Id: 602878-001 S MSD Sample Id: 602878-001 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	999	927	93	942	94	70-135	2	20	mg/kg	10.22.18 12:36	
Diesel Range Organics (DRO)	<8.12	999	988	99	1010	101	70-135	2	20	mg/kg	10.22.18 12:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		124		70-135	%	10.22.18 12:36
o-Terphenyl	99		94		70-135	%	10.22.18 12:36

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067329 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664682-1-BLK LCS Sample Id: 7664682-1-BKS LCSD Sample Id: 7664682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	2.06	103	1.99	100	55-120	3	20	mg/kg	10.23.18 09:43	
Toluene	<0.0200	2.00	1.89	95	1.77	89	77-120	7	20	mg/kg	10.23.18 09:43	
Ethylbenzene	<0.0200	2.00	1.81	91	1.69	85	77-120	7	20	mg/kg	10.23.18 09:43	
m,p-Xylenes	<0.00682	4.00	3.71	93	3.46	87	78-120	7	20	mg/kg	10.23.18 09:43	
o-Xylene	<0.0200	2.00	1.86	93	1.69	85	78-120	10	20	mg/kg	10.23.18 09:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	86		88		84		68-120	%	10.23.18 09:43
a,a,a-Trifluorotoluene	76		86		87		71-121	%	10.23.18 09:43

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067329 Matrix: Soil Date Prep: 10.23.18
Parent Sample Id: 602980-001 MS Sample Id: 602980-001 S MSD Sample Id: 602980-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0193	1.93	1.83	95	0.935	49	54-120	65	25	mg/kg	10.23.18 17:23	XF
Toluene	<0.00453	1.93	1.77	92	0.901	47	57-120	65	25	mg/kg	10.23.18 17:23	XF
Ethylbenzene	<0.0193	1.93	1.76	91	0.905	47	58-131	64	25	mg/kg	10.23.18 17:23	XF
m,p-Xylenes	0.0172	3.87	3.60	93	1.72	45	62-124	71	25	mg/kg	10.23.18 17:23	XF
o-Xylene	<0.00660	1.93	1.77	92	0.851	45	62-124	70	25	mg/kg	10.23.18 17:23	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	93		47	**	68-120	%	10.23.18 17:23
a,a,a-Trifluorotoluene	100		43	**	71-121	%	10.23.18 17:23

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

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San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote # | Xenco Job # 620980

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office

Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705

Email: Abaker@ltenv.com | Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Ben Belill

Project Information

Project Name/Number: JRU #3 Battery

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 2RP-4991

Analytical Information

BTEX EPA 8021 | TPH EPA 8015 | Chlorides 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	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Preserved: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chlorides	Field Comments
1	FS08	4'	10/17/18	1345	S	1									X	X	X	Composite type
2	SW08	2'	10/17/18	1400	S	1									X	X	X	Composite type
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

BSB 10/17/18

Turnaround Time (Business days)

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

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
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

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	Ben Belill	10/19/18 1455	Chris Putnam	2 Chris Putnam	10/19/18 15:30	2 Amber 10/20/18 900
3				4		4
5				Custody Seal #	Preserved where applicable	On Ice: Cooler Temp. 3.0 Thermo. Corr. Factor 0.0

Notice: 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 loses 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.

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.

Inter-Office Shipment

IOS Number **115867**

Date/Time: 10/22/18 09:00
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602980-001	S	FS08	10/17/18 13:45	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602980-001	S	FS08	10/17/18 13:45	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602980-002	S	SW08	10/17/18 14:00	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602980-002	S	SW08	10/17/18 14:00	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/22/2018

Received By:
Ashley Derstine

Date Received: 10/23/2018 09:00

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115867

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 10/22/2018 09:00 AM

Received By: Ashley Derstine **Date Received:** 10/23/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10/23/2018
Ashley Derstine

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/20/2018 09:00:00 AM

Work Order #: 602980

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	
#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)?	**Yes**	Lubbock-BTEX & Chlorides
#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: 10/22/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/22/2018
Jessica Kramer

Analytical Report 602981

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU #3 Battery

25-OCT-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)

25-OCT-18

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

Reference: XENCO Report No(s): **602981**
JRU #3 Battery
Project Address: Carlsbad, 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) 602981. 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. 602981 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

Sample Cross Reference 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW10	S	10-17-18 14:30	2 ft	602981-001
SW11	S	10-17-18 14:35	3 ft	602981-002
SW12	S	10-17-18 14:40	3 ft	602981-003
SW13	S	10-17-18 14:45	2 ft	602981-004
SW14	S	10-17-18 15:05	3 ft	602981-005
SW15	S	10-17-18 15:10	3 ft	602981-006
SW16	S	10-17-18 15:15	3 ft	602981-007
SW17	S	10-17-18 15:20	3 ft	602981-008
SW18	S	10-17-18 15:25	3 ft	602981-009
SW19	S	10-17-18 15:30	3 ft	602981-010

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3067329 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene, Surrogate a,a,a-Trifluorotoluene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 602980-001 SD.

Lab Sample ID 602980-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602980-001, -002.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3067438 Inorganic Anions by EPA 300
Lab Sample ID 602981-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 602981-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3067479 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 602981-009.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 602981

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	602981-001		602981-002		602981-003		602981-004		602981-005		602981-006	
	Field Id:	SW10		SW11		SW12		SW13		SW14		SW15	
	Depth:	2- ft		3- ft		3- ft		2- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-17-18 14:30		Oct-17-18 14:35		Oct-17-18 14:40		Oct-17-18 14:45		Oct-17-18 15:05		Oct-17-18 15:10	
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30		Oct-23-18 10:30	
	Analyzed:	Oct-24-18 01:01		Oct-24-18 01:28		Oct-24-18 01:54		Oct-24-18 02:21		Oct-24-18 02:48		Oct-24-18 03:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0183	0.0183	<0.0175	0.0175	<0.0195	0.0195	<0.0178	0.0178	<0.0199	0.0199	<0.0176	0.0176
Toluene		<0.0183	0.0183	0.230	0.0175	0.0312	0.0195	<0.0178	0.0178	<0.0199	0.0199	<0.0176	0.0176
Ethylbenzene		<0.0183	0.0183	<0.0175	0.0175	<0.0195	0.0195	<0.0178	0.0178	<0.0199	0.0199	<0.0176	0.0176
m,p-Xylenes		<0.0366	0.0366	11.1	0.0349	0.156	0.0390	<0.0355	0.0355	2.16	0.0398	1.96	0.0351
o-Xylene		<0.0183	0.0183	6.81	0.0175	0.0429	0.0195	<0.0178	0.0178	1.13	0.0199	6.27	0.0176
Total Xylenes		<0.0183	0.0183	17.9	0.0175	0.199	0.0195	<0.0178	0.0178	3.29	0.0199	8.23	0.0176
Total BTEX		<0.0183	0.0183	18.1	0.0175	0.230	0.0195	<0.0178	0.0178	3.29	0.0199	8.23	0.0176
Inorganic Anions by EPA 300 SUB: T104704219-18-18	***Extracted:***	Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00	
	Analyzed:	Oct-24-18 16:25		Oct-24-18 16:38		Oct-24-18 16:50		Oct-24-18 17:02		Oct-24-18 17:15		Oct-24-18 17:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		68.6	50.0	821	125	265	50.0	297	125	709	125	937	125
TPH by SW8015 Mod	***Extracted:***	Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00	
	Analyzed:	Oct-23-18 02:47		Oct-23-18 03:08		Oct-23-18 03:28		Oct-23-18 07:17		Oct-23-18 04:09		Oct-23-18 04:30	
	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	678	15.0	<15.0	15.0	<14.9	14.9	294	15.0	1060	14.9
Diesel Range Organics (DRO)		<15.0	15.0	1010	15.0	97.4	15.0	96.4	14.9	2320	15.0	2390	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	1690	15.0	97.4	15.0	96.4	14.9	2610	15.0	3450	14.9

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 602981

LT Environmental, Inc., Arvada, CO

Project Name: JRU #3 Battery

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Oct-20-18 09:00 am
Report Date: 25-OCT-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	602981-007		602981-008		602981-009		602981-010			
	Field Id:	SW16		SW17		SW18		SW19			
	Depth:	3- ft		3- ft		3- ft		3- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Oct-17-18 15:15		Oct-17-18 15:20		Oct-17-18 15:25		Oct-17-18 15:30			
BTEX by EPA 8021B	***Extracted:***	Oct-23-18 10:30		Oct-23-18 10:30		Oct-24-18 12:15		Oct-23-18 10:30			
SUB: T104704219-18-18	***Analyzed:***	Oct-24-18 03:42		Oct-24-18 04:10		Oct-25-18 01:55		Oct-24-18 05:05			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.0197	0.0197	0.0366	0.0193	<0.0199	0.0199	<0.0196	0.0196		
Toluene		<0.0197	0.0197	<0.0193	0.0193	<0.0199	0.0199	0.0472	0.0196		
Ethylbenzene		<0.0197	0.0197	<0.0193	0.0193	0.129	0.0199	<0.0196	0.0196		
m,p-Xylenes		7.37	0.0394	6.19	0.0385	0.139	0.0398	<0.0393	0.0393		
o-Xylene		7.52	0.0197	6.43	0.0193	0.0239	0.0199	0.173	0.0196		
Total Xylenes		14.9	0.0197	12.6	0.0193	0.163	0.0199	0.173	0.0196		
Total BTEX		14.9	0.0197	12.7	0.0193	0.292	0.0199	0.220	0.0196		
Inorganic Anions by EPA 300	***Extracted:***	Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00		Oct-24-18 12:00			
SUB: T104704219-18-18	***Analyzed:***	Oct-24-18 17:40		Oct-24-18 18:05		Oct-24-18 18:54		Oct-24-18 19:07			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		1080	125	1170 D	125	1120	125	908	125		
TPH by SW8015 Mod	***Extracted:***	Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00		Oct-22-18 14:00			
	Analyzed:	Oct-23-18 04:50		Oct-23-18 05:11		Oct-23-18 05:31		Oct-23-18 05:51			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		1340	15.0	1370	15.0	261	15.0	168	15.0		
Diesel Range Organics (DRO)		3440	15.0	2850	15.0	1740	15.0	941	15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH		4780	15.0	4220	15.0	2000	15.0	1110	15.0		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-001	Date Collected:	10.17.18 14.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**68.6**	50.0	mg/kg	10.24.18 16.25		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 02.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	10.23.18 02.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 02.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.23.18 02.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.23.18 02.47	
o-Terphenyl	84-15-1	94	%	70-135	10.23.18 02.47	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-001	Date Collected:	10.17.18 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1
Toluene	108-88-3	<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1
Ethylbenzene	100-41-4	<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1
m,p-Xylenes	179601-23-1	<0.0366	0.0366	mg/kg	10.24.18 01.01	U	1
o-Xylene	95-47-6	<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1
Total Xylenes	1330-20-7	<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1
Total BTEX		<0.0183	0.0183	mg/kg	10.24.18 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	10.24.18 01.01	
a,a,a-Trifluorotoluene	98-08-8	87	%	71-121	10.24.18 01.01	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-002	Date Collected:	10.17.18 14.35	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**821**	125	mg/kg	10.24.18 16.38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**678**	15.0	mg/kg	10.23.18 03.08		1
Diesel Range Organics (DRO)	C10C28DRO	**1010**	15.0	mg/kg	10.23.18 03.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 03.08	U	1
Total TPH	PHC635	**1690**	15.0	mg/kg	10.23.18 03.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.23.18 03.08	
o-Terphenyl	84-15-1	101	%	70-135	10.23.18 03.08	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-002	Date Collected:	10.17.18 14.35	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0175	0.0175	mg/kg	10.24.18 01.28	U	1
Toluene	108-88-3	**0.230**	0.0175	mg/kg	10.24.18 01.28		1
Ethylbenzene	100-41-4	<0.0175	0.0175	mg/kg	10.24.18 01.28	U	1
m,p-Xylenes	179601-23-1	**11.1**	0.0349	mg/kg	10.24.18 01.28		1
o-Xylene	95-47-6	**6.81**	0.0175	mg/kg	10.24.18 01.28		1
Total Xylenes	1330-20-7	**17.9**	0.0175	mg/kg	10.24.18 01.28		1
Total BTEX		**18.1**	0.0175	mg/kg	10.24.18 01.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	205	%	68-120	10.24.18 01.28	**
a,a,a-Trifluorotoluene	98-08-8	127	%	71-121	10.24.18 01.28	**

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-003	Date Collected:	10.17.18 14.40	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**265**	50.0	mg/kg	10.24.18 16.50		2

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	10.23.18 03.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**97.4**	15.0	mg/kg	10.23.18 03.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 03.28	U	1
Total TPH	PHC635	**97.4**	15.0	mg/kg	10.23.18 03.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.23.18 03.28	
o-Terphenyl	84-15-1	93	%	70-135	10.23.18 03.28	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-003	Date Collected:	10.17.18 14.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0195	0.0195	mg/kg	10.24.18 01.54	U	1
Toluene	108-88-3	**0.0312**	0.0195	mg/kg	10.24.18 01.54		1
Ethylbenzene	100-41-4	<0.0195	0.0195	mg/kg	10.24.18 01.54	U	1
m,p-Xylenes	179601-23-1	**0.156**	0.0390	mg/kg	10.24.18 01.54		1
o-Xylene	95-47-6	**0.0429**	0.0195	mg/kg	10.24.18 01.54		1
Total Xylenes	1330-20-7	**0.199**	0.0195	mg/kg	10.24.18 01.54		1
Total BTEX		**0.230**	0.0195	mg/kg	10.24.18 01.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	10.24.18 01.54	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	10.24.18 01.54	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-004	Date Collected:	10.17.18 14.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**297**	125	mg/kg	10.24.18 17.02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	10.23.18 07.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**96.4**	14.9	mg/kg	10.23.18 07.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.23.18 07.17	U	1
Total TPH	PHC635	**96.4**	14.9	mg/kg	10.23.18 07.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.23.18 07.17	
o-Terphenyl	84-15-1	101	%	70-135	10.23.18 07.17	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-004	Date Collected:	10.17.18 14.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1
Toluene	108-88-3	<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1
Ethylbenzene	100-41-4	<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1
m,p-Xylenes	179601-23-1	<0.0355	0.0355	mg/kg	10.24.18 02.21	U	1
o-Xylene	95-47-6	<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1
Total Xylenes	1330-20-7	<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1
Total BTEX		<0.0178	0.0178	mg/kg	10.24.18 02.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	68-120	10.24.18 02.21	
a,a,a-Trifluorotoluene	98-08-8	80	%	71-121	10.24.18 02.21	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-005	Date Collected:	10.17.18 15.05	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**709**	125	mg/kg	10.24.18 17.15		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**294**	15.0	mg/kg	10.23.18 04.09		1
Diesel Range Organics (DRO)	C10C28DRO	**2320**	15.0	mg/kg	10.23.18 04.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 04.09	U	1
Total TPH	PHC635	**2610**	15.0	mg/kg	10.23.18 04.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.23.18 04.09	
o-Terphenyl	84-15-1	124	%	70-135	10.23.18 04.09	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-005	Date Collected:	10.17.18 15.05	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	10.24.18 02.48	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	10.24.18 02.48	U	1
Ethylbenzene	100-41-4	<0.0199	0.0199	mg/kg	10.24.18 02.48	U	1
m,p-Xylenes	179601-23-1	**2.16**	0.0398	mg/kg	10.24.18 02.48		1
o-Xylene	95-47-6	**1.13**	0.0199	mg/kg	10.24.18 02.48		1
Total Xylenes	1330-20-7	**3.29**	0.0199	mg/kg	10.24.18 02.48		1
Total BTEX		**3.29**	0.0199	mg/kg	10.24.18 02.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	150	%	68-120	10.24.18 02.48	**
a,a,a-Trifluorotoluene	98-08-8	89	%	71-121	10.24.18 02.48	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-006	Date Collected:	10.17.18 15.10	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**937**	125	mg/kg	10.24.18 17.27		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1060**	14.9	mg/kg	10.23.18 04.30		1
Diesel Range Organics (DRO)	C10C28DRO	**2390**	14.9	mg/kg	10.23.18 04.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	10.23.18 04.30	U	1
Total TPH	PHC635	**3450**	14.9	mg/kg	10.23.18 04.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	10.23.18 04.30	
o-Terphenyl	84-15-1	127	%	70-135	10.23.18 04.30	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-006	Date Collected:	10.17.18 15.10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0176	0.0176	mg/kg	10.24.18 03.16	U	1
Toluene	108-88-3	<0.0176	0.0176	mg/kg	10.24.18 03.16	U	1
Ethylbenzene	100-41-4	<0.0176	0.0176	mg/kg	10.24.18 03.16	U	1
m,p-Xylenes	179601-23-1	**1.96**	0.0351	mg/kg	10.24.18 03.16		1
o-Xylene	95-47-6	**6.27**	0.0176	mg/kg	10.24.18 03.16		1
Total Xylenes	1330-20-7	**8.23**	0.0176	mg/kg	10.24.18 03.16		1
Total BTEX		**8.23**	0.0176	mg/kg	10.24.18 03.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	165	%	68-120	10.24.18 03.16	**
a,a,a-Trifluorotoluene	98-08-8	107	%	71-121	10.24.18 03.16	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-007	Date Collected:	10.17.18 15.15	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1080**	125	mg/kg	10.24.18 17.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1340**	15.0	mg/kg	10.23.18 04.50		1
Diesel Range Organics (DRO)	C10C28DRO	**3440**	15.0	mg/kg	10.23.18 04.50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 04.50	U	1
Total TPH	PHC635	**4780**	15.0	mg/kg	10.23.18 04.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	10.23.18 04.50	
o-Terphenyl	84-15-1	126	%	70-135	10.23.18 04.50	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-007	Date Collected:	10.17.18 15.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0197	0.0197	mg/kg	10.24.18 03.42	U	1
Toluene	108-88-3	<0.0197	0.0197	mg/kg	10.24.18 03.42	U	1
Ethylbenzene	100-41-4	<0.0197	0.0197	mg/kg	10.24.18 03.42	U	1
m,p-Xylenes	179601-23-1	**7.37**	0.0394	mg/kg	10.24.18 03.42		1
o-Xylene	95-47-6	**7.52**	0.0197	mg/kg	10.24.18 03.42		1
Total Xylenes	1330-20-7	**14.9**	0.0197	mg/kg	10.24.18 03.42		1
Total BTEX		**14.9**	0.0197	mg/kg	10.24.18 03.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	346	%	68-120	10.24.18 03.42	**
a,a,a-Trifluorotoluene	98-08-8	127	%	71-121	10.24.18 03.42	**

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-008	Date Collected:	10.17.18 15.20	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1170**	125	mg/kg	10.24.18 18.17	D	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1370**	15.0	mg/kg	10.23.18 05.11		1
Diesel Range Organics (DRO)	C10C28DRO	**2850**	15.0	mg/kg	10.23.18 05.11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 05.11	U	1
Total TPH	PHC635	**4220**	15.0	mg/kg	10.23.18 05.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	10.23.18 05.11	
o-Terphenyl	84-15-1	124	%	70-135	10.23.18 05.11	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-008	Date Collected:	10.17.18 15.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0366**	0.0193	mg/kg	10.24.18 04.10		1
Toluene	108-88-3	<0.0193	0.0193	mg/kg	10.24.18 04.10	U	1
Ethylbenzene	100-41-4	<0.0193	0.0193	mg/kg	10.24.18 04.10	U	1
m,p-Xylenes	179601-23-1	**6.19**	0.0385	mg/kg	10.24.18 04.10		1
o-Xylene	95-47-6	**6.43**	0.0193	mg/kg	10.24.18 04.10		1
Total Xylenes	1330-20-7	**12.6**	0.0193	mg/kg	10.24.18 04.10		1
Total BTEX		**12.7**	0.0193	mg/kg	10.24.18 04.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	204	%	68-120	10.24.18 04.10	**
a,a,a-Trifluorotoluene	98-08-8	149	%	71-121	10.24.18 04.10	**

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-009	Date Collected:	10.17.18 15.25	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1120**	125	mg/kg	10.24.18 18.54		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**261**	15.0	mg/kg	10.23.18 05.31		1
Diesel Range Organics (DRO)	C10C28DRO	**1740**	15.0	mg/kg	10.23.18 05.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 05.31	U	1
Total TPH	PHC635	**2000**	15.0	mg/kg	10.23.18 05.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.23.18 05.31	
o-Terphenyl	84-15-1	115	%	70-135	10.23.18 05.31	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-009	Date Collected:	10.17.18 15.25	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.24.18 12.15	Basis:	Wet Weight
Seq Number:	3067479			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	10.25.18 01.55	U	1
Toluene	108-88-3	<0.0199	0.0199	mg/kg	10.25.18 01.55	U	1
Ethylbenzene	100-41-4	**0.129**	0.0199	mg/kg	10.25.18 01.55		1
m,p-Xylenes	179601-23-1	**0.139**	0.0398	mg/kg	10.25.18 01.55		1
o-Xylene	95-47-6	**0.0239**	0.0199	mg/kg	10.25.18 01.55		1
Total Xylenes	1330-20-7	**0.163**	0.0199	mg/kg	10.25.18 01.55		1
Total BTEX		**0.292**	0.0199	mg/kg	10.25.18 01.55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	134	%	68-120	10.25.18 01.55	**
a,a,a-Trifluorotoluene	98-08-8	80	%	71-121	10.25.18 01.55	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-010	Date Collected:	10.17.18 15.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	10.24.18 12.00	Basis:	Wet Weight
Seq Number:	3067438			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**908**	125	mg/kg	10.24.18 19.07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.22.18 14.00	Basis:	Wet Weight
Seq Number:	3067249				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**168**	15.0	mg/kg	10.23.18 05.51		1
Diesel Range Organics (DRO)	C10C28DRO	**941**	15.0	mg/kg	10.23.18 05.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	10.23.18 05.51	U	1
Total TPH	PHC635	**1110**	15.0	mg/kg	10.23.18 05.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.23.18 05.51	
o-Terphenyl	84-15-1	99	%	70-135	10.23.18 05.51	

Certificate of Analytical Results 602981

LT Environmental, Inc., Arvada, CO

JRU #3 Battery

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	10.20.18 09.00
Lab Sample Id:	602981-010	Date Collected:	10.17.18 15.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	10.23.18 10.30	Basis:	Wet Weight
Seq Number:	3067329			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	10.24.18 05.05	U	1
Toluene	108-88-3	**0.0472**	0.0196	mg/kg	10.24.18 05.05		1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	10.24.18 05.05	U	1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	10.24.18 05.05	U	1
o-Xylene	95-47-6	**0.173**	0.0196	mg/kg	10.24.18 05.05		1
Total Xylenes	1330-20-7	**0.173**	0.0196	mg/kg	10.24.18 05.05		1
Total BTEX		**0.220**	0.0196	mg/kg	10.24.18 05.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	68-120	10.24.18 05.05	**
a,a,a-Trifluorotoluene	98-08-8	83	%	71-121	10.24.18 05.05	

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 602981

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664782-1-BLK LCS Sample Id: 7664782-1-BKS LCSD Sample Id: 7664782-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.26	250	250	100	249	100	90-110	0	20	mg/kg	10.24.18 14:58	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602980-001 MS Sample Id: 602980-001 S MSD Sample Id: 602980-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	380	250	674	118	682	121	80-120	1	20	mg/kg	10.24.18 15:48	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3067438 Matrix: Soil Date Prep: 10.24.18
Parent Sample Id: 602981-008 MS Sample Id: 602981-008 S MSD Sample Id: 602981-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1070	250	1510	176	1480	164	80-120	2	20	mg/kg	10.24.18 18:29	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067249 Matrix: Solid Date Prep: 10.22.18
MB Sample Id: 7664679-1-BLK LCS Sample Id: 7664679-1-BKS LCSD Sample Id: 7664679-1-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	974	97	950	95	70-135	2	20	mg/kg	10.22.18 21:16	
Diesel Range Organics (DRO)	<8.13	1000	960	96	929	93	70-135	3	20	mg/kg	10.22.18 21:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		130		128		70-135	%	10.22.18 21:16
o-Terphenyl	101		114		108		70-135	%	10.22.18 21:16

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

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

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

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

QC Summary 602981

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3067249 Matrix: Soil Date Prep: 10.22.18
Parent Sample Id: 602977-001 MS Sample Id: 602977-001 S MSD Sample Id: 602977-001 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	949	95	969	97	70-135	2	20	mg/kg	10.22.18 22:18	
Diesel Range Organics (DRO)	36.2	998	969	93	993	96	70-135	2	20	mg/kg	10.22.18 22:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		127		70-135	%	10.22.18 22:18
o-Terphenyl	98		101		70-135	%	10.22.18 22:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067329 Matrix: Solid Date Prep: 10.23.18
MB Sample Id: 7664682-1-BLK LCS Sample Id: 7664682-1-BKS LCSD Sample Id: 7664682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	2.06	103	1.99	100	55-120	3	20	mg/kg	10.23.18 09:43	
Toluene	<0.0200	2.00	1.89	95	1.77	89	77-120	7	20	mg/kg	10.23.18 09:43	
Ethylbenzene	<0.0200	2.00	1.81	91	1.69	85	77-120	7	20	mg/kg	10.23.18 09:43	
m,p-Xylenes	<0.00682	4.00	3.71	93	3.46	87	78-120	7	20	mg/kg	10.23.18 09:43	
o-Xylene	<0.0200	2.00	1.86	93	1.69	85	78-120	10	20	mg/kg	10.23.18 09:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	86		88		84		68-120	%	10.23.18 09:43
a,a,a-Trifluorotoluene	76		86		87		71-121	%	10.23.18 09:43

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3067479 Matrix: Solid Date Prep: 10.24.18
MB Sample Id: 7664793-1-BLK LCS Sample Id: 7664793-1-BKS LCSD Sample Id: 7664793-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.78	89	1.78	89	55-120	0	20	mg/kg	10.24.18 17:03	
Toluene	<0.0200	2.00	1.79	90	1.73	87	77-120	3	20	mg/kg	10.24.18 17:03	
Ethylbenzene	<0.0200	2.00	1.88	94	1.82	91	77-120	3	20	mg/kg	10.24.18 17:03	
m,p-Xylenes	<0.0400	4.00	3.76	94	3.63	91	78-120	4	20	mg/kg	10.24.18 17:03	
o-Xylene	<0.0200	2.00	1.88	94	1.84	92	78-120	2	20	mg/kg	10.24.18 17:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		88		73		68-120	%	10.24.18 17:03
a,a,a-Trifluorotoluene	102		88		75		71-121	%	10.24.18 17:03

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

QC Summary 602981

LT Environmental, Inc.

JRU #3 Battery

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3067329 Matrix: Soil Date Prep: 10.23.18

Parent Sample Id: 602980-001 MS Sample Id: 602980-001 S MSD Sample Id: 602980-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0193	1.93	1.83	95	0.935	49	54-120	65	25	mg/kg	10.23.18 17:23	XF
Toluene	<0.00453	1.93	1.77	92	0.901	47	57-120	65	25	mg/kg	10.23.18 17:23	XF
Ethylbenzene	<0.0193	1.93	1.76	91	0.905	47	58-131	64	25	mg/kg	10.23.18 17:23	XF
m,p-Xylenes	0.0172	3.87	3.60	93	1.72	45	62-124	71	25	mg/kg	10.23.18 17:23	XF
o-Xylene	<0.00660	1.93	1.77	92	0.851	45	62-124	70	25	mg/kg	10.23.18 17:23	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	93		47	**	68-120	%	10.23.18 17:23
a,a,a-Trifluorotoluene	100		43	**	71-121	%	10.23.18 17:23

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3067479 Matrix: Soil Date Prep: 10.24.18

Parent Sample Id: 603248-003 MS Sample Id: 603248-003 S MSD Sample Id: 603248-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0184	1.84	1.56	85	1.47	82	54-120	6	25	mg/kg	10.24.18 19:05	
Toluene	<0.0184	1.84	1.56	85	1.47	82	57-120	6	25	mg/kg	10.24.18 19:05	
Ethylbenzene	<0.0184	1.84	1.63	89	1.55	87	58-131	5	25	mg/kg	10.24.18 19:05	
m,p-Xylenes	<0.0368	3.68	3.26	89	3.10	87	62-124	5	25	mg/kg	10.24.18 19:05	
o-Xylene	<0.0184	1.84	1.62	88	1.54	86	62-124	5	25	mg/kg	10.24.18 19:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		101		68-120	%	10.24.18 19:05
a,a,a-Trifluorotoluene	108		108		71-121	%	10.24.18 19:05

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

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

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www.xenco.com

Xenco Quote # | Xenco Job # 602981

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office

Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705

Email: Abaker@ltenv.com | Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Ben Belill

Project Information

Project Name/Number: SRU #3 Battery

Project Location: Carlsbad, NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 7BP-4991

Analytical Information

BTEX EPA 8020 | TPH EPA 8015 | Chloride 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	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SW10	2'	10/17/18	1430	S	1								X	Composite type/Contaminated
2	SW11	3'		1435										X	
3	SW12	3'		1440										X	
4	SW13	2'		1445										X	
5	SW14	3'		1505										X	
6	SW15	3'		1510										X	
7	SW16	3'		1515										X	
8	SW17	3'		1520										X	
9	SW18	3'		1525										X	
10	SW19	3'	↓	1530	↓	↓								X	↓

Turnaround Time (Business days)

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

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
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

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

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	B. Belill	10/19/18 1455	Chris Perez	Chris Perez	10/19/18 15:30	10/20/18 0900
2	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
5						X 3.0 / 0.0

Notice: 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 loses 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.

ORIGIN ID:CAOA (575) 887-6245
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PAC N MAIL
910 W PIERCE ST

CARLSBAD, NM 88220
UNITED STATES US

SHIP DATE: 19OCT18
ACTWGT: 68.00 LB
CAD: 101813706/INET4040
DIMS: 26x14x15 IN

BILL RECIPIENT

TO HOLD FOR XENCO
FEDEX OFFICE PRINT & SHIP CENTER
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200 W INTERSTATE 20

MIDLAND TX 79701
(806) 674-0639

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Inter-Office Shipment

IOS Number **115865**

Date/Time: 10/22/18 08:56
Created by: Brianna Teel
Please send report to: Jessica Kramer

Lab# From: **Midland**
Delivery Priority:
Address: 1211 W. Florida Ave, Midland TX 79701

Lab# To: **Lubbock**
Air Bill No.: fedex
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
602981-001	S	SW10	10/17/18 14:30	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-001	S	SW10	10/17/18 14:30	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-002	S	SW11	10/17/18 14:35	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-002	S	SW11	10/17/18 14:35	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-003	S	SW12	10/17/18 14:40	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-003	S	SW12	10/17/18 14:40	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-004	S	SW13	10/17/18 14:45	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-004	S	SW13	10/17/18 14:45	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-005	S	SW14	10/17/18 15:05	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-005	S	SW14	10/17/18 15:05	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-006	S	SW15	10/17/18 15:10	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-006	S	SW15	10/17/18 15:10	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-007	S	SW16	10/17/18 15:15	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-007	S	SW16	10/17/18 15:15	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-008	S	SW17	10/17/18 15:20	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-008	S	SW17	10/17/18 15:20	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-009	S	SW18	10/17/18 15:25	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	
602981-009	S	SW18	10/17/18 15:25	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-010	S	SW19	10/17/18 15:30	SW8021B	BTEX by EPA 8021B	10/26/18	10/31/18	JKR	BR4FBZ BZ BZME EBZ X	
602981-010	S	SW19	10/17/18 15:30	E300	Inorganic Anions by EPA 300	10/26/18	11/14/18	JKR	CL	

Inter-Office Shipment

IOS Number **115865**

Date/Time: 10/22/18 08:56
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 10/22/2018

Received By:
Ashley Derstine

Date Received: 10/23/2018 09:00

Cooler Temperature: 2.9

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 115865

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 10/22/2018 08:56 AM

Received By: Ashley Derstine **Date Received:** 10/23/2018 09:00 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 *Custody Seals Signed and dated for Containers/coolers	**No**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10/23/2018

Ashley Derstine

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/20/2018 09:00:00 AM

Work Order #: 602981

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	
#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)?	**Yes**	Lubbock-BTEX & Chlorides
#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: 10/22/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/22/2018

Jessica Kramer

View of product line within excavation

Project: 012918151	XTO Energy, Inc. James Ranch Unit #3 Battery	LTE Advancing Opportunity
October 11, 2018	Photographic Log	

View of the excavation area and tank battery

Project: 012918151	XTO Energy, Inc. James Ranch Unit #3 Battery	LTE Advancing Opportunity
October 12, 2018	Photographic Log	

View of the excavation southern boundary

Project: 012918151	XTO Energy, Inc. James Ranch Unit #3 Battery	LTE Advancing Opportunity
October 12, 2018	Photographic Log	